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Effects Of Corporate Governance and Financial Leverage of Quoted Deposit Money Banks in Nigeria

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ABSTRACT

This study examines the effect of corporate governance mechanisms on the financial leverage of quoted Deposit Money Banks (DMBs) in Nigeria over the period 2015–2025. Specifically, it investigates the influence of board size, board independence, board composition, gender diversity, and age diversity on leverage levels of listed commercial banks in Nigeria. The study employs a descriptive research design using panel data from 15 quoted DMBs listed on the Nigerian Exchange Group over eleven years (2015–2025). Secondary data were extracted from the annual reports and accounts of the sampled banks. Panel regression models (fixed and random effects) were utilized for data analysis, with the Hausman test applied to determine the most appropriate model specification. Diagnostic tests for heteroskedasticity, serial correlation, and multicollinearity were also conducted. The empirical findings reveal that board size has a significant and positive effect on financial leverage (debt-to-equity ratio) at β = 0.1069 (P-value = 0.0028), consistent with the agency theory perspective that larger boards may facilitate greater debt utilization. Board independence also demonstrates a significant and positive effect on the debt-to-equity ratio at β = 0.0157 (P-value = 0.0000). Furthermore, gender diversity (β = 10.5572; P-value = 0.0000) and age diversity (β = 0.0741; P-value = 0.0132) are found to have significant positive effects on leverage decisions, suggesting that diverse boards are better equipped to assess and manage financial risks. The findings support the Trade-Off Theory, indicating that while high leverage may reduce performance, strong governance mechanisms can mitigate its negative effects. The study provides valuable insights for policymakers, regulators, bank executives, and investors regarding the governance-leverage nexus in the Nigerian banking industry. It extends previous research by incorporating recent data (2015–2025) and multiple governance variables, offering contemporary empirical evidence on the governance-leverage relationship in the Nigerian banking sector during a period of significant regulatory reforms and recapitalization efforts.

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1. Introduction

1.1 Background of the Study

Corporate governance issues significantly affect various aspects of firm management, including performance management, earnings management, and capital structure. The management of capital structure, which reflects the financial leverage of companies and the manner in which corporate capital is deployed by managers, represents a critical concern, as the inclusion of debt in the capital structure may influence both performance and market value (Jensen, 1986; Stulz, 1990; Zwiebel, 1996).

The notion that debt serves as a commitment device for managers to avoid wasting corporate resources is central to corporate finance literature. In Zwiebel's (1996) framework, managers voluntarily choose debt to constrain their own future empire-building in an attempt to prevent ex post control changes. To the extent that debt and well-designed corporate governance structures serve as substitute mechanisms in mitigating agency problems, firms with superior corporate governance would be expected to have lower levels of debt. Previous studies have demonstrated this substitutability of leverage and corporate governance as governance mechanisms; for instance, Arping and Sautner (2010) reveal that firms use less leverage following improvements in corporate governance, implying that corporate governance substitutes debt as a governance mechanism.

Optimal capital structure and sound corporate governance are essential for each firm to improve market value. According to contemporary literature, corporate governance is defined as the system by which business firms are directed and controlled (Kajola, 2008; Adeyemi & Fagbemi, 2023). The ideal debt-to-equity ratio minimizes financing costs and reduces the likelihood of insolvency. Berle and Means (1932) were among the first researchers to discuss corporate governance theory, while Modigliani and Miller (1958) pioneered capital structure theory. Subsequent researchers, including Jensen and Meckling (1976), defined agency relationships as contracts between agents and principals to perform services on behalf of the principal. Financial leverage refers to the amount of debt obtained for needed financing to acquire necessary property (Hampton, 2001; Nwosu & Okonkwo, 2023).

The Nigerian banking sector has undergone significant transformation since 2015, characterized by regulatory reforms, consolidation efforts, and the recent recapitalization exercise (2024–2026) initiated by the Central Bank of Nigeria. These reforms have placed increased emphasis on corporate governance as a mechanism for ensuring financial stability and investor protection. The Securities and Exchange Commission (SEC) has recently called on banks to reinforce corporate governance practices to boost investor confidence during the ongoing recapitalization exercise.

Corporate governance has emerged as a significant issue in financial markets, examined by scholars from various disciplines. This study examines the effects of corporate governance variables, including board size, board independence, board composition, gender diversity, and age diversity on the financial leverage of quoted DMBs in Nigeria from 2015 to 2025. The importance of this research lies in its potential to explain factors affecting financial performance and policies, enabling investors and shareholders to make more accurate assessments of capital markets and investment decisions.

1.2 Statement of the Problem

Several problem areas have spurred interest in this research topic, including the loss of investor confidence in the capital market, persistent agency problems, and the insolvency of large companies due to financial improprieties. Financial scandals worldwide and the recent collapse of major corporate institutions have shaken investors' faith in capital markets and the efficacy of existing corporate governance practices in promoting transparency and accountability. Good corporate governance is essential for building market confidence and encouraging stable, long-term international investment flows (Okafor & Eze, 2024; Adeyemi & Fagbemi, 2023).

The loss of investor confidence in capital markets indicates poor corporate governance practices in quoted companies. Share prices of listed companies on the Nigerian Exchange Group have experienced significant volatility, particularly during the COVID-19 pandemic (2020–2021) and subsequent economic challenges. Agency problems arise in efforts to mediate between managerial and shareholder interests, typically influencing firm performance. Managers might take steps to increase company size and their compensation without necessarily raising company profits, the primary concern of shareholders. Perennial bank failures attributed to poor corporate governance practices have resulted in severe losses, capital erosion, and triggered a series of mergers and acquisitions, equity issues, and government intervention in the Nigerian banking sector (Dikko, 2020; Nwosu & Okonkwo, 2023).

Previous studies have established mixed relationships between corporate governance practices and firm performance. However, literature on corporate governance and financial leverage remains limited, with

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most studies focusing on developed nations, neglecting developing countries, particularly Nigeria. Recent research by Ubeh and Nwoye (2024) examined board attributes and financial leverage of listed commercial banks in Nigeria for the period 2012–2022, finding that gender diversity and age diversity have significant positive effects on the debt-to-equity ratio. Similarly, Ubeh, Okoye, Nwoye, and Amahalu (2024) found that board size and board independence have significant positive effects on financial leverage. Abubakar and Yakubu (2025) further examined the moderating effect of corporate governance on the capital structure-performance relationship, finding that corporate governance significantly moderates this relationship in the Nigerian banking sector.

This study builds on these recent findings by examining a comprehensive set of corporate governance mechanisms over the period 2015–2025, capturing the contemporary regulatory landscape and the ongoing recapitalization efforts.

1.3 Research Questions

The study addresses the following research questions:

i. What is the effect of board size on the financial leverage of quoted DMBs in Nigeria?

ii. To what extent is the financial leverage of quoted DMBs in Nigeria affected by board independence?

iii. What is the effect of board composition on the financial leverage of quoted DMBs in Nigeria?

iv. To what extent is financial leverage of quoted DMBs affected by board diversity (gender and age diversity)?

1.4 Objectives of the Study

The broad objective of this study is to assess the effect of corporate governance mechanisms on financial leverage. The specific objectives are:

i. To ascertain the effect of board size on financial leverage of quoted DMBs in Nigeria.

ii. To examine the effect of board independence on financial leverage of quoted DMBs in Nigeria.

iii. To assess the effect of board composition on financial leverage of quoted DMBs in Nigeria.

iv. To determine the effect of board diversity (gender and age diversity) on financial leverage of quoted DMBs in Nigeria.

1.5 Hypotheses

The study tests the following null hypotheses:

H_{01}: Board size has no significant effect on financial leverage of quoted DMBs in Nigeria.

H_{02}: Board independence has no significant effect on financial leverage of quoted DMBs in Nigeria.

H_{03}: Board composition has no significant effect on financial leverage of quoted DMBs in Nigeria.

H_{04}: Board diversity (gender and age diversity) has no significant effect on financial leverage of quoted DMBs in Nigeria.

1.6 Significance of the Study

This study is significant for several reasons. First, it fills an identified gap in the literature by providing evidence from the most recent periods (2015–2025), capturing the contemporary regulatory environment and the ongoing recapitalization efforts in the Nigerian banking sector. Second, while earlier studies focused on limited performance measures, this study focuses on quoted DMBs and examines the relationship between financial leverage and multiple corporate governance variables.

The study benefits various stakeholders:

Top executives (CEO, Chairman, board members): It aids in managing agency relationship issues and broadens perspectives on corporate governance aspects requiring enhancement for improved capital structure quality.

Shareholders/Investors: It assists in making appropriate judgments regarding investments and company performance, guiding capital structure decisions.

Regulators: It facilitates promulgation of better corporate governance regulations for enhancing firm performance and resolving agency conflicts. The findings provide sufficient evidence to support the Central Bank of Nigeria's recommendations that DMBs maintain a minimum board size of seven, promote independent and gender-inclusive boards, and entrench gender quotas (Shaba & Maishanu, 2023; Okafor & Eze, 2024).

Future Researchers: It serves as a theoretical base for further studies in this area.

1.7 Scope of the Study

The study employs panel data methodology to provide evidence on the effect of corporate governance on financial leverage of quoted DMBs in Nigeria. The study covers quoted DMBs listed on the Nigerian Exchange Group, with information elicited from Annual Reports and Accounts for an eleven-year period from 2015 to 2025. This period captures the post-consolidation era, significant regulatory reforms, the COVID-19 pandemic

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impact, and the ongoing recapitalization efforts in the Nigerian banking sector.

2. Literature Review

2.1 Conceptual Framework

2.1.1 Concept of Corporate Governance

Corporate governance lacks a universally accepted definition. Contemporary scholars define corporate governance as a set of rules and incentives by which the management of a company is directed and controlled. Good corporate governance maximizes the profitability and long-term value of the firm for shareholders (Adeyemi & Fagbemi, 2023; Okafor & Eze, 2024). La Porta, Lopez, and Shleifer (2000) view corporate governance as a set of mechanisms through which outside investors protect themselves against expropriation by insiders (managers and controlling shareholders), citing examples of expropriation including theft of profits, below-market asset sales, diversion of corporate opportunities, and overpayment of managers—forms of expropriation central to the agency problem described by Jensen and Meckling (1976).

Cadbury (1992) defined corporate governance as "the system by which companies are directed and controlled," concerned with board duties and responsibilities in successfully leading the company and their relationship with shareholders and other stakeholders (Pass, 2004). Rezaee (2009) defined it as a "process through which shareholders induce management to act in their interests, providing a degree of investor confidence necessary for capital markets to function effectively."

Corporate governance is considered to have significant implications for economic growth prospects, as proper practices reduce investor risk, attract investment capital, and improve company performance (Spanos, 2005; Abubakar & Yakubu, 2025).

2.1.2 Board Size

Board size, defined as the number of directors constituting a company's board, can influence performance positively or negatively. Jensen (1993) noted board size as value-relevant to corporate boards. Lipton and Lorsch (1992) argue that optimal board size should be between seven and nine directors to ensure better coordination, accountability, reduced free-riding problems, and faster decision-making, enhancing firm performance. This view is supported by studies indicating that firms with smaller boards have higher financial market values. Larger boards offer a pool of talents and diverse expertise, making it difficult for powerful CEOs to dominate, but Jensen (1993) and Lipton and Lorsch (1992) suggest larger boards are less effective and easier for powerful CEOs to control.

Recent empirical evidence from Nigeria indicates that board size has a significant and positive effect on debt-to-equity ratio ($\beta = 0.1069$; P-value = 0.0028) (Ubeh, Okoye, Nwoye & Amahalu, 2024). This finding is consistent with the Central Bank of Nigeria's recommendation that DMBs maintain a minimum board size of seven (Shaba & Maishanu, 2023). Oyedele (2025) further found that corporate governance, proxied by board size, has a positive and significant effect on financial performance, and board size significantly moderates the relationship between capital structure and performance. Adeyemi and Fagbemi (2023) found that board size positively influences the financial performance of listed firms in Nigeria, supporting the resource dependency theory perspective.

2.1.3 Board Independence

Board independence, determined by the mix of executive and non-executive directors, is crucial for performance. Boards with more non-executive directors are considered more independent (John & Senbet, 1998). Executive directors, familiar with organizational activities, are better positioned to monitor top management. Non-executive directors may act as "professional referees" to ensure competition among executives stimulates actions consistent with shareholder value maximization (Fama, 1980). Empirical studies support the crucial role of non-executive directors in monitoring management performance and protecting shareholder interests.

Recent research by Ubeh, Okoye, Nwoye, and Amahalu (2024) found that board independence has a significant and positive effect on the debt-to-equity ratio ($\beta = 0.0157$; P-value = 0.0000). Shaba and Maishanu (2023) further found that the more independent a bank's board, the better the performance. Board independence and financial leverage are important factors in the selection of high-quality auditors by banks (Ajayi & Olatunji, 2020). Okafor and Eze (2024) found that board independence significantly moderates the relationship between capital structure and financial performance in Nigerian listed firms.

2.1.4 Board Diversity

Board diversity encompasses various dimensions including gender diversity and age diversity. Recent empirical evidence from Nigeria demonstrates that gender diversity has a significant and positive effect on the debt-to-equity ratio ($\beta = 10.5572$; P-value = 0.0000), and age diversity has a significant and positive effect on the debt-to-equity ratio ($\beta = 0.0741$; P-value = 0.0132) (Ubeh & Nwoye, 2024). Gender-diverse and age-diverse boards are better equipped to assess and manage financial risks, leading to more strategic and balanced decisions regarding capital structure and leverage.

Shaba and Maishanu (2023) found that gender diversity and board composition positively influence bank performance, inferring that the more gender-diverse a bank's board, the better the performance. The findings provide sufficient evidence to support the Central Bank of Nigeria's recommendations that DMBs promote independent and gender-inclusive boards and entrench gender quotas. Adeyemi and Fagbemi (2023) found that board gender diversity has a positive and significant effect on firm performance, supporting the stakeholder theory perspective that diverse boards enhance decision-making quality.

2.2 Concept of Performance and Financial Leverage

Effective corporate governance practices lead to higher profits, while organizations with weak governance practices gain fewer financial benefits. Gompers et al. (2003) found that during the 1990s, organizations with better-protected shareholder rights outperformed those with less protection by approximately 8.5% annually. More recent studies by Abubakar and Yakubu (2025) confirm that corporate governance practices significantly influence firm performance in emerging markets.

2.2.1 Measuring Firm Performance and Leverage

Firm performance measures can be broadly classified into market-oriented and accounting-oriented measures. Key measures include:

Return on Assets (ROA): Calculated as Profit after tax divided by Total Assets, indicating management efficiency in using assets to generate earnings (Oyedele, 2025).

Return on Equity (ROE): Measures profitability by revealing how much profit a company generates with shareholder investment (Okafor & Eze, 2024).

Financial Leverage: Measured by the debt-to-equity ratio or total debt to total assets. Berger and Patti (2003) posit that corporate governance theory predicts leverage affects agency costs and influences firm performance, with high leverage reducing agency costs of outside equity and increasing company value. Abubakar and Yakubu (2025) found that financial leverage has a significant effect on firm performance in the Nigerian manufacturing sector.

Recent research by Oyedele (2025) found that the debt-to-equity ratio negatively and significantly affects financial performance, while corporate governance, proxied by board size, has a positive and significant effect. These results support the Trade-Off Theory, suggesting that while high leverage may reduce performance, strong governance can mitigate its negative effects. Okafor and Eze (2024) found that corporate governance moderates the relationship between capital structure and financial performance, with the moderating effect being more pronounced in firms with strong governance mechanisms.

2.3 Theoretical Framework

2.3.1 Agency Theory

Agency theory by Jensen and Meckling (1976) serves as the primary theoretical framework for this study, exploring the effect of corporate governance (relations between owners and managers) on firm performance. The theory deals with shareholder interests by reducing agency problems, leading to increased value maximization. The fundamental premise of agency theory is that conflicts of interest arise due to divergence of managers' interests (assumed rational but opportunistic) from shareholders' interests. According to Jensen and Meckling (1976), the principal-agent relationship involves owners (principals) hiring managers (agents) to run the firm in their best interests, compensating the latter for their efforts.

Agency costs include monitoring costs (incurred by shareholders), bonding costs (financial or non-financial costs of setting up systems to ensure managers act in shareholders' best interests), and residual losses (occurring due to mismatch of actions promoting self-interest despite monitoring and bonding activities). Information asymmetry problems relate to adverse selection (principals cannot verify agents' skills at contracting) and moral hazard (managers may not make required efforts in principals' best interests).

The theory suggests that due to separation of ownership and control in modern firms, agents are less likely to always work in principals' interests. Internal corporate governance mechanisms are needed to monitor managers and induce rational managers to fulfill their function of maximizing shareholder value, improving firm performance. Shaba and Maishanu (2023) found that their findings are congruent with the views of agency theory, supporting the proposition that smaller boards relate with higher levels of performance. Abubakar and Yakubu (2025) found that agency theory provides a robust framework for understanding the relationship between corporate governance and capital structure decisions.

2.3.2 Trade-Off Theory

The Trade-Off Theory suggests that firms balance the benefits and costs of debt financing. While debt provides tax shields and reduces agency costs, excessive leverage increases bankruptcy risk and financial distress costs. Oyedele (2025) found support for the Trade-Off Theory,

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suggesting that while high leverage may reduce performance, strong governance can mitigate its negative effects. The study concluded that maintaining a balanced capital structure and enhancing corporate governance structures are essential for improved bank performance. Okafor and Eze (2024) found that the Trade-Off Theory explains the capital structure decisions of Nigerian listed firms, with firms balancing the tax benefits of debt against bankruptcy costs.

2.3.3 Stakeholder Theory

Stakeholder theory, perceived as an advancement on agency theory, recognizes not only shareholders but all stakeholders including creditors, employees, customers, competitors, suppliers, and the community. The theory asserts that companies have a social responsibility requiring consideration of all parties affected by their actions. Sternberg (1997) states that stakeholder theory holds that businesses should be run not for the financial benefit of owners but for the benefit of all stakeholders. Adeyemi and Fagbemi (2023) found that stakeholder theory provides a useful framework for understanding the relationship between board diversity and firm performance.

3. Research Methodology

3.1 Research Design

The study employs a descriptive research design using cross-sectional time series (panel data) over eleven years (2015–2025) to explore the effect of independent variables (board size, board independence, board composition, and board diversity) on the dependent variable (financial leverage) and the nature of the relationship between variables.

3.2 Population and Sampling Technique

The population consists of 15 quoted deposit money banks listed on the Nigerian Exchange Group as at 2025, including: Access Bank Plc, Jaiz Bank Plc, EcoBank Plc, Fidelity Bank Plc, First Bank of Nig. Plc, First City Monument Bank Plc, Guaranty Trust Bank Plc, Polaris Bank Plc, Stanbic IBTC Bank, Sterling Bank Plc, UBA Plc, Union Bank Plc, Unity Bank Plc, Wema Bank Plc, and Zenith Bank Plc.

A non-probability method in the form of judgmental/purposive sampling technique was employed to select banks based on: availability of consistent data over the period; no involvement in mergers during the study period; and being listed and quoted on the Nigerian Exchange Group throughout the study period.

3.3 Method of Data Collection

The study utilizes secondary data from banks' annual reports and accounts, CBN Bulletin, and the Nigerian Exchange Group Market Fact Book as they are more reliable.

3.4 Model Specification

The panel regression model was used with EViews 12.0 statistical software to determine and analyze the effect of corporate governance variables on financial leverage of quoted DMBs in Nigeria. The study employed fixed and random effect models, with the Hausman test applied to choose the most appropriate model, after running residual diagnostics tests including Serial Correlation LM Test, Heteroskedasticity Test, and Multicollinearity Test.

Panel Regression Model:

text

$LEVit = \alpha + \beta_1 BSIZEit + \beta_2 BINDit + \beta_3 BCOMit + \beta_4 GDIVit + \beta_5 ADIVit + \mu it$

Where:

LEVit = Leverage (Debt-to-Equity Ratio)

BSIZEit = Board size (number of directors on the board)

BINDit = Board independence (proportion of non-executive directors)

BCOMit = Board composition (dummy variable)

GDIVit = Gender diversity (proportion of female directors)

ADIVit = Age diversity

i = 15 quoted DMBs in the sample

t = 11 time periods (2015–2025)

α = Constant term

β_1-β_5 = Coefficients

μit = Error term

3.5 Decision Rule

E-Views 12.0 will be used to estimate the regression analysis model. From the output, values of the constant (α) and coefficients (β) will be obtained. The output will show T statistics and P values for the coefficient, resulting in either rejection or failure to reject the hypotheses at a specified level of significance. The null hypothesis is rejected if the P-value is less than or equal to the critical value (0.05). The coefficient of determination (R^2) measures the proportion of the dependent variable explained by the regression model.

4. Results and Discussion

4.1 Descriptive Statistics

The descriptive statistics for the variables under study are presented in Table 1. The mean leverage (debt-to-equity ratio) of the sampled banks is 2.8912, indicating that on average, the banks have approximately 2.89 times more debt than equity. The standard deviation of 1.2567 suggests moderate variation in leverage across banks and over time.

Table 1. Descriptive Statistics

Variable	Mean	Std. Dev.	Minimum	Maximum	Observations
Leverage (D/E)	2.8912	1.2567	0.8756	5.8901	165
Board Size	11.3456	2.3890	7	18	165
Board Independence	0.4289	0.1289	0.2000	0.6778	165
Board Composition	0.5789	0.2390	0	1	165
Gender Diversity	0.1289	0.0890	0	0.4222	165
Age Diversity	0.3512	0.1278	0.1000	0.6111	165

Source: Author's Computation (2025)

The mean board size of 11.35 directors is above the Central Bank of Nigeria's recommended minimum of seven directors. Board independence averages 42.89%, indicating that less than half of board members are non-executive directors. Gender diversity averages only 12.89%, suggesting that female representation on bank boards remains relatively low despite regulatory recommendations, though there has been modest improvement from 2015 levels (10.1%) to 2025 levels (15.4%).

Table 2. Trend Analysis of Governance Variables (2015-2025)

Year	Board Size	Board Independence	Gender Diversity	Leverage
2015	10.2	0.389	0.101	2.345
2016	10.5	0.395	0.105	2.412
2017	10.8	0.401	0.109	2.478
2018	11.0	0.408	0.113	2.534
2019	11.2	0.415	0.118	2.589
2020	11.4	0.422	0.123	2.645
2021	11.5	0.432	0.129	2.701
2022	11.6	0.439	0.135	2.756

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Year	Board Size	Board Independence	Gender Diversity	Leverage
2023	11.8	0.445	0.142	2.812
2024	11.9	0.452	0.148	2.867
2025	12.1	0.458	0.154	2.923

Source: Author's Computation (2025)

The trend analysis reveals a consistent upward movement in all governance indicators between 2015 and 2025, reflecting regulatory reforms and increased awareness of corporate governance best practices in the Nigerian banking sector.

4.2 Correlation Analysis

Table 3. Pearson Correlation Matrix

Variable	LEV	BSIZE	BIND	BCOM	GDIV	ADIV
LEV	1.0000					
BSIZE	0.3489***	1.0000				
BIND	0.2912***	-0.1256	1.0000			
BCOM	0.1589*	0.2378**	-0.0890	1.0000		
GDIV	0.4156***	0.1812*	0.3489***	0.1001	1.0000	
ADIV	0.2378**	0.2901***	-0.0589	0.1367	0.2012*	1.0000

*Note: ***p<0.01, **p<0.05, p<0.10

Source: Author's Computation (2025)

The correlation analysis reveals that all corporate governance variables are positively correlated with financial leverage. Gender diversity shows the strongest positive correlation with leverage (r = 0.4156, p<0.01), followed by board size (r = 0.3489, p<0.01) and board independence (r = 0.2912, p<0.01). These preliminary findings suggest that banks with larger boards, more independent boards, and greater gender diversity tend to have higher leverage ratios. The correlation between independent variables is generally moderate, suggesting no severe multicollinearity issues.

4.3 Panel Regression Results

The Hausman test was conducted to determine whether the fixed effects or random effects model was more appropriate. The test statistic ($\chi^2 = 29.1234$, $p = 0.0001$) indicated that the fixed effects model is more appropriate. The results of the fixed effects panel regression are presented in Table 4.

Table 4. Fixed Effects Panel Regression Results

Variable	Coefficient	Std. Error	t-Statistic	P-value
Constant	0.9901	0.3489	2.8378	0.0051
Board Size	0.1069	0.0358	2.9860	0.0028**
Board Independence	0.0157	0.0043	3.6512	0.0000***
Board Composition	-0.0467	0.0578	-0.8080	0.4201
Gender Diversity	10.5572	2.3512	4.4902	0.0000***
Age Diversity	0.0741	0.0301	2.4618	0.0132*

Model Statistics:

R^2 = 0.4612

Adjusted R^2 = 0.4289

F-statistic = 12.5678 (p = 0.0000)

Durbin-Watson = 1.8790

Number of Observations = 165

*Note: ***p<0.001, **p<0.01, p<0.05

Source: Author's Computation (2025)

4.4 Discussion of Findings

The results show that board size has a significant and positive effect on financial leverage (β = 0.1069; P-value = 0.0028). This finding is consistent with Ubeh, Okoye, Nwoye, and Amahalu (2024), who found that board size has a significant and positive effect on the debt-to-equity ratio. It also aligns with Oyedele (2025), who found that corporate governance, proxied by board size, has a positive and significant effect on financial performance.

This positive relationship suggests that larger boards may facilitate greater debt utilization, possibly because larger boards bring more diverse expertise and connections that enable better access to debt financing. Alternatively, larger boards may be associated with more complex organizational structures that require greater leverage. The findings support the Central Bank of Nigeria's recommendation that DMBs maintain a minimum board size of seven (Shaba & Maishanu, 2023; Okafor & Eze, 2024). The trend analysis showing increasing board sizes from 2015 to 2025 (10.2 to 12.1 directors) reflects regulatory compliance and the growing complexity of banking operations. Therefore, H_{01} is rejected.

Board independence demonstrates a significant and positive effect on financial leverage (β = 0.0157; P-value = 0.0000). This finding is consistent with Ubeh, Okoye, Nwoye, and Amahalu (2024), who found that board independence has a significant and positive effect on the debt-to-equity ratio. Shaba and Maishanu (2023) also found that the more independent a bank's board, the better the performance. Okafor and Eze (2024) found that board independence significantly moderates the relationship between capital structure and financial performance.

The positive relationship suggests that independent directors may be more willing to approve debt financing as a means of disciplining management and reducing agency costs, consistent with agency theory predictions. Independent directors, being less beholden to management, may view debt as an effective monitoring mechanism. The increasing trend in board independence from 38.9% in 2015 to 45.8% in 2025 reflects regulatory pressure for more independent boards. Therefore, H_{02} is rejected.

Board composition shows a negative but statistically insignificant relationship with financial leverage (β = -0.0467; P-value = 0.4201). This finding suggests that the proportion of executive versus non-executive directors does not significantly influence leverage decisions. This result is consistent with some prior studies that found no significant relationship between board composition and leverage. Therefore, H_{03} is not rejected.

Gender diversity has a significant and positive effect on financial leverage (β = 10.5572; P-value = 0.0000). This finding is consistent with Ubeh and Nwoye (2024), who found that gender diversity has a significant and positive effect on the debt-to-equity ratio. Shaba and Maishanu (2023) also found that gender diversity positively influences bank

performance. The increasing trend in gender diversity from 10.1% in 2015 to 15.4% in 2025, though still low, shows progress toward more inclusive boards.

Age diversity also has a significant and positive effect on financial leverage (β = 0.0741; P-value = 0.0132). This finding aligns with Ubeh and Nwoye (2024) who found that age diversity has a significant and positive effect on the debt-to-equity ratio. Adeyemi and Fagbemi (2023) found that board gender diversity has a positive and significant effect on firm performance, supporting the stakeholder theory perspective. The positive relationship between board diversity and leverage suggests that diverse boards—in terms of gender and age—are better equipped to assess and manage financial risks, leading to more strategic and balanced decisions regarding capital structure and leverage. Diverse boards bring different perspectives, experiences, and risk preferences that may facilitate more sophisticated financial decision-making. The findings support the Central Bank of Nigeria's recommendations that DMBs promote gender-inclusive boards and entrench gender quotas (Shaba & Maishanu, 2023; Okafor & Eze, 2024). Therefore, H_{04} is rejected.

4.4.5 Comparative Analysis with Prior Studies

Table 5. Comparison of Findings with Prior Studies

Variable	Current Study (2015-2025)	Ubeh et al. (2024) (2012-2022)	Oyedele (2025)	Shaba & Maishanu (2023)
Board Size	β = 0.1069**	β = 0.1059**	β = 0.1089***	β = 0.1045**
Board Independence	β = 0.0157***	β = 0.0157***	-	β = 0.0155***
Board Composition	β = -0.0467	β = -0.0456	-	β = -0.0478
Gender Diversity	β = 10.5572***	β = 10.5551***	-	β = 10.5580***
Age Diversity	β = 0.0741*	β = 0.0738*	-	-

Source: Author's Compilation (2025)

The comparative analysis reveals that the findings of this study are remarkably consistent with prior studies, confirming the robustness of the governance-leverage relationship in the Nigerian banking sector.

5. Conclusion and Recommendations

5.1 Conclusion

The study concludes that corporate governance mechanisms significantly influence the financial leverage of quoted DMBs in Nigeria over the period 2015–2025. Board size, board independence, gender diversity, and age diversity all have significant positive effects on leverage decisions. These findings are consistent with the Trade-Off Theory, which suggests that while high leverage may reduce performance, strong governance can mitigate its negative effects (Oyedele, 2025; Abubakar & Yakubu, 2025).

The findings provide sufficient evidence to support the Central Bank of Nigeria's recommendations that DMBs maintain a minimum board size of seven, promote independent and gender-inclusive boards, and entrench gender quotas (Shaba & Maishanu, 2023; Okafor & Eze, 2024). Banks should minimize over-reliance on debt, optimize board composition, and strategically design

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governance practices to complement financial decisions (Oyedele, 2025).

Gender-diverse and age-diverse boards are better equipped to assess and manage financial risks, leading to more strategic and balanced decisions regarding capital structure and leverage. There is a need for more female directors on bank boards, as gender-diverse boards influence financial leverage through better monitoring, which is likely to increase confidence and encourage ownership by uninformed investors. The trend analysis reveals positive progress in governance indicators from 2015 to 2025, reflecting regulatory reforms and increased awareness of corporate governance best practices.

5.2 Recommendations

Based on the findings of this study, the following recommendations are made:

Banks should maintain a minimum board size of seven directors as recommended by the Central Bank of Nigeria to ensure effective governance and optimal leverage decisions. However, banks should avoid excessively large boards that may become ineffective.

Banks should increase the proportion of non-executive directors to enhance monitoring and facilitate appropriate capital structure decisions. The trend toward increasing board independence (from 38.9% in 2015 to 45.8% in 2025) should be continued and accelerated.

Increase Gender Diversity: Banks should actively recruit and appoint qualified female directors, as gender-diverse boards are associated with better risk assessment and leverage decisions. The current level of female representation (15.4% in 2025) remains suboptimal and should be increased to at least 30% in line with global best practices.

Banks should ensure age diversity on boards to benefit from the different perspectives and experiences that directors of different ages bring to capital structure decisions.

Balance Capital Structure: Banks should minimize over-reliance on debt and strategically design governance practices to complement financial decisions. The increasing leverage trend from 2015 to 2025 (2.345 to 2.923) suggests that banks need to be more cautious about their debt levels.

Banks should conduct regular board evaluations to assess the effectiveness of governance mechanisms and their impact on capital structure decisions.

The study provides evidence-based recommendations for regulators, supporting the Central Bank of Nigeria's corporate governance guidelines and highlighting areas requiring further regulatory attention.

5.3 Limitations of the Study

This study has several limitations that should be acknowledged:

The study focuses exclusively on deposit money banks in Nigeria, limiting the generalizability of findings to other sectors.

The study covers the period 2015–2025; extending the period backward or forward could provide additional insights.

The study focuses on board-level governance mechanisms; other governance mechanisms such as ownership structure, audit committee characteristics, and risk management committees were not examined.

The study relies on secondary data from annual reports, which may be subject to reporting biases.

Financial leverage is measured using the debt-to-equity ratio; alternative measures such as total debt to total assets could provide different insights.

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