

# Capital Structure, Board Characteristics and Firm Performance of Listed Non-Financial Companies

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DOI: <https://dx.doi.org/10.47772/IJRISS.2024.801131>

Received: 22 December 2023; Accepted: 01 January 2024; Published: 13 February 2024

## ABSTRACT

This exploratory research investigates the complex dynamics among capital structure, board characteristics, and financial performance in listed non-financial companies in Nigeria. Utilizing purposive sampling, the study focuses on 67 companies, primarily non-financial, renowned for consistently providing accessible data. Annual reports from 2012 to 2022 serve as the data source, covering metrics related to capital structure (Debt to Assets Ratio and Leverage Ratio), board characteristics (CEO Duality, Board Size, and Board Gender Diversity), and financial performance (Return on Assets, Dividend per Share, and Earnings per Share). Employing panel data econometrics techniques, including fixed and random effects pooled regression models, the study analyzes these relationships. The findings reveal a statistically insignificant negative impact of capital structure on financial performance, indicated by Debt to Assets Ratio and Leverage. CEO duality shows a negative effect on Earnings per Share without statistical significance. In contrast, Board Size and Board Gender Diversity significantly positively influence Earnings per Share, underscoring their importance in enhancing firm performance. Regarding Dividend per Share, higher Debt to Assets Ratio and Leverage are associated with lower firm performance, while CEO duality's impact lacks statistical significance. Larger board sizes and greater board gender diversity, however, positively affect Dividend per Share, emphasizing their positive contributions to financial performance. The study concludes with recommendations, including the importance of companies striving for an optimal capital structure, enhancing board diversity, evaluating CEO and Chair role separation, and carefully assessing risk factors when considering higher leverage. Nonetheless, limitations, such as the statistical insignificance of some relationships, the limited data period, and the omission of external factors, highlight avenues for future research.

## INTRODUCTION

In the realm of corporate finance, the interplay between capital structure and board characteristics holds paramount significance for maximizing shareholders' returns and ensuring firms' seamless operation. Modigliani and Miller's 1958 research laid the foundation for exploring firms' financial structures, both theoretically and empirically (Harris and Raviv, 1991). Capital structure involves strategically combining diverse funding sources, and financial managers aim to optimize shareholder wealth (Ayange et al., 2021). Ownership structure, with dimensions like involvement and concentration, influences agency costs and capital structure decisions (Chaganti and Damanpour, 1991; Abel Ebel and Okafor, 2010).

The correlation between capital structure and firm performance involves accounting-based methodologies and market leverage values (Hashim, 2019). The determination of capital structure is influenced by

managerial perspectives, objectives, and ownership structure, impacting a firm's performance (Wang & Shailer, 2018). Corporate governance practices, including financial policies and board characteristics, become central challenges, sparking debates in decision-making processes (Chevalier & Rokhim, 2006). The free cash-flow model, pecking-order model, and agency theory model dominate discussions on optimal capital structure (Chevalier & Rokhim, 2006). Leverage, as per Jensen's free cash flow theory, can enhance firm value, but excessive leverage has potential consequences (Murtishaw and Sathaye, 2006).

Studies in Pakistan and Nigeria indicate mixed findings on the relationship between corporate governance and capital structure (Rehman and Rehman, 2010; Kumar, 2006). Effective corporate governance in Nigeria's non-financial sector, particularly through board characteristics, is integral for influencing company performance (Matuszak et al., 2019). Corporate governance's significance lies in managing risks, increasing transparency, and enhancing overall performance (Becht, 2013). The relationship between capital structure, board characteristics, and firm performance has sparked significant interest in Nigeria, with Nigerian authors contributing to understanding these dynamics (Uyar et al., 2020).

Nigerian scholars emphasize the importance of board characteristics in determining financial performance, highlighting the impact of board composition, diversity, and size on capital structure decisions (Adebayo et al., 2021). Despite growing recognition, empirical evidence specific to Nigeria is needed due to its distinctive institutional landscape (Brown, 2019; Fischer, 2021). The study aims to analyze the relationship among capital structure, board characteristics, and firm performance of listed non-financial companies in Nigeria.

## LITERATURE REVIEW

### Capital Structure and Board Characteristics

Capital Structure of a firm is the mix of different securities issued by the firm to finance its operations (Onyebuchi, 2023). Mix of financing methods used by a firm is called the firm's capital structure. Loosely Speaking, capital structure refers to the proportions of debt and equity that make up the liability owners' equity side of firm's balance sheet often refers to the use of debt in a firm's capital structure as leverage. The choice of a firm's capital structure is a marketing problem. It is essentially concerned with how the decides to divide its cash flows into two broad components, fixed component that is earmarked to meet the obligations toward debt Propositions (Mubeen, Han, Abbas, & Hussain, 2020).

The capital structure represents a strategic blend of equity and debt capital within a company. The distribution between debt and equity components is a fluid dynamic, influenced by firm-specific factors and evolving circumstances (Kulikov, Alabed Alkader, Panaedova, Ogorodnikov, & Rebeka, 2023). Varying capital structures can encompass extremes like a fully equity-financed approach, a debt-heavy composition, or an array of mixed proportions. While equity financing brings relatively lower commitment risks in terms of cash flows, it entails ownership and earnings dilution. On the contrary, debt financing entails an obligation with comparatively lower costs but presents heightened risk factors. This intricate interplay of financial mechanisms holds a pivotal status within the realm of corporate finance (Gillan, Koch, & Starks, 2021). However, the selection of an optimal capital structure requires an astute consideration of risk-reward trade-offs and their implications on ownership, earnings, and overall financial health.

### CEO duality

The debate on the duality-performance effect in academia and the corporate community has been extensive and it remains the most contentious issue in corporate governance (Aguilera et al. 2015). CEO duality describes the circumstances where the CEO and chairperson role are combined (Yu and Yang 2010). The debate on CEO duality developed from the United Kingdom and the USA with the introduction of the UK

Cadbury report 1992 and Sarbanes Oxley act 2002 in response to issues relating to the effective monitoring and controlling of corporate affairs. The duties of the CEO include making major corporate decisions and taking responsibility for firms' performance (Ghardallou, 2022). To achieve these duties, firms' CEO need to be acquainted with the operational activities of the firm and keep up to date with market competition by implementing strategies that would influence firms' financial performance and the board chairman (BOC) needs to effectively discharge their duties of planning board activities, managing firms' operational activities and frequency of board meetings (Ghardallou, 2022).

The practice of separating the role of CEO and Chairman position is enshrined in the UK combined code of governance which relies on the universal concept of best governance practices. In practice, the separation of both roles can improve or inhibit firms' financial performance (Peng et al.2007; Ammari et al., 2014). Therefore, it is important to determine whether CEO duality enhances firms' financial performance or not, since the effectiveness of the board can be influenced by the CEO power relative to the entire power of the board (Uyar, Wasiuzzaman, Kuzey, & Karaman, 2022).

### **Board Gender Diversity and Capital Structure**

Board diversity refers to the presence of women in the board structure as measured by the percentage of women directors on the board. Recent research by Smith and Johnson (2021) emphasized that the gender diversity of the board affects the quality of the controlling role and the company's performance. The presence of women on the board has an impact on better company value due to improved monitoring quality (Anderson et al., 2018). Women directors are more likely to contribute to company management with their expertise in areas such as law, human resource management, communication, and public relations compared to their male counterparts (Brown and Davis, 2010). Recent studies by Chen et al. (2019) found that having a female director on the board of directors leads to better financial performance. Additionally, women directors bring a different perspective to the decision-making process compared to men (Torchia et al., 2011).

In terms of risk management, female directors tend to exhibit risk-averse behavior and show caution in making risky decisions. This can lead female directors to advocate for lower levels of leverage in order to reduce financial risk (Terjesen et al., 2016). However, it is important to note that the presence of female directors does not always indicate low leverage in a company. In certain contexts, many companies in developed countries have naturally low levels of leverage (Minnick and Rosenthal, 2014). In fact, the presence of women directors in companies with low leverage can actually encourage companies to increase leverage to higher levels (Morgan et al., 2020).

### **Board Size and Capital Structure**

Board characteristics are independent variables used in the study. Board characteristics are measured using several proxies, Board Size is measured using the board of directors as the total number of the board of directors (Bhagat and Bolton, 2008), and Board Diversity is measured as the ratio of the number of all female directors to the number of all directors (Detthamrong et al, 2017), Committee Auditing is measured by the number of audit committees in the board structure (Detthamrong et al, 2017). Board size refers to the number of directors who can influence the company's corporate governance practices (Yermack, 1996), so that the characteristics of the board owned by the company can influence the decision-making process (Fodio & Oba, 2012).

According to agency theory by Jensen and Meckling (1976) the composition of the board with a large number of directors is considered more effective in handling and controlling management in dealing with agency conflict problems, the more the number of directors involved in management activities will make the board more alert. board size is an important dimension of board structure (Noor & Fadzil, 2013). Coles et al

(2008) provide evidence that firms with larger board sizes have greater effectiveness even though firms with larger boards tend to be associated with accrual earnings management.

Furthermore, Cheng and Courtenay (2006) found that the size of the board of directors is positively related to the level of corporate voluntary disclosure. Capital structure is a combination of debt and equity used by companies to finance their (Asri, 2013). Measurement of the company's capital structure uses the company's financial leverage as the ratio of total debt to total assets (Nini, et. al 2002). Wen et al (2002) found a positive relationship between board size and capital structure.

## **THEORETICAL REVIEW**

### **Agency Theory**

The concepts of agency theory are closely intertwined with discussions about capital structure, board characteristics, and firm performance, therefore, this study is anchored on Agency theory. Agency theory, as proposed by Jensen and Meckling (1976), highlights how the separation between ownership and control within a firm leads to agency problems, which subsequently impact decisions related to capital structure. Debt financing serves as a tool to alleviate agency costs by creating incentives for debt holders to oversee and discipline managers.

Furthermore, debt financing imposes restrictions on managerial discretion, as managers are obligated to meet debt obligations. This directly relates to capital structure decisions, as the choice between equity and debt financing is influenced by the need to balance managerial freedom with debt holder monitoring. Ownership structure, another aspect of agency theory, plays a pivotal role in addressing agency problems that stem from managerial self-interest. Concentrated ownership aligns managers' interests with shareholders', fostering better control over managerial actions. However, this could also lead to conflicting interests if owners prioritize personal gains over company and shareholder welfare. The intricate interplay between agency theory, capital structure, board characteristics, and firm performance underscores the multifaceted dynamics that shape corporate decisions and outcomes.

### **Pecking order Theory**

The pecking order theory, in relation to capital structure, board characteristics, and financial performance, offers insights into the decision-making processes of firms when it comes to financing their operations. Developed by Myers and Majluf (1984), the theory suggests that firms prefer internal financing sources, such as retained earnings, over external financing, such as debt or equity issuance, due to information asymmetry and adverse selection concerns.

Under the pecking order theory, firms prioritize using retained earnings to fund their investments and operations. This preference stems from the idea that internal financing does not signal negative information to investors, unlike external financing. By relying on retained earnings, firms avoid the costs associated with issuing new securities and the potential signal of undervaluation or lack of investment opportunities (Ulum, Adriyana, Mahmudah, & Mahirun, M. (2022)

Capital structure decisions play a crucial role within the framework of the pecking order theory (Georgakopoulos, Toudas, Poutos, Kounadeas, & Tsavalias, 2022). Firms tend to have a preference for low levels of debt, as higher debt levels may signal financial distress or limited internal financing capacity. This preference for lower leverage ratios aligns with the notion that firms prioritize internal financing over external financing options (Georgakopoulos, Toudas, Poutos, Kounadeas, & Tsavalias, 2022).

Furthermore, the influence of board characteristics on capital structure decisions and financial performance

is also relevant within the pecking order theory. Boards with higher levels of expertise and independence are expected to have a greater understanding of the firm's financial needs and make more informed decisions regarding capital structure choices (Ulum, Adriyana, Mahmudah, & Mahirun, 2022) Effective boards can contribute to maintaining a sound financial position by overseeing capital allocation decisions and ensuring alignment with firm strategy.

## Empirical Review

Assenga, Aly, & Hussainey, (2018) investigated the impact of board characteristics on the financial performance of Tanzanian firms. Board characteristics, including 7q7\*\*t;u.6gg,ytty//. outside directors, board size, CEO/Chair duality, gender diversity, board skill and foreign directors are addressed in the Tanzanian context by applying two corporate governance theories, namely, agency theory and resource dependence theory. The paper uses balanced panel data regression analysis on 80 firm-years observations (2006-2013) from annual reports, and semi-structured interviews were conducted with 12 key stakeholders. The study uses also a mixed methods approach and applies a convergent parallel design (Creswell and Plano Clark, 2011) to integrate quantitative and qualitative data. It was found that in terms of agency theory, while the findings support the separation of CEO/ Chairperson roles, they do not support outside directors-financial performance linkage. With regard to resource dependence theory, the findings suggest that gender diversity has a positive impact on financial performance.

Pucheta-Martínez, & Gallego-Álvarez, (2020) examined how board size, board independence, CEO duality, female directors and board compensation affect firm performance in a sample of international firms. The 34 countries that made up the panel data sample total 10,314 firm-year observations used in this study, and they have been divided into six geographic zones: Africa, Asia, Nigeria, Latin America, North America, and Oceania. The results revealed that some board characteristics, such as board size, board independence and having a female director, are positively associated with firm performance, whereas CEO duality, contrary to their expectations, also impacts positively on firm performance. Moreover, board compensation is not associated with firm performance.

Amedi, & Mustafa, (2020) investigate the impact of the board of directors' features on the financial performance of companies, which is measured using return on equity. This study utilized secondary data approach. A population is all companies listed in Amman Stock Exchange (ASE), while the sample consists of all Jordanian companies from manufacture sector from 2016 to 2018. Multiple regression has been used to test this study hypothesis and meet its objective. This study finding aligns with agency theory and resource dependence theory propositions, that the size of the board of directors is negatively related to firm performance. On the other hand, the board of directors' independence and female directors are having a positive influence on firm performance.

These studies collectively underscore the intricate relationships between capital structure decisions, board characteristics, providing insights into the factors that shape corporate financial strategies and outcomes.

## METHODOLOGY

### Research Design

This study adopted an ex-post-facto research design due to the nature of data envelopment analysis, a mathematical programming technique that involves assessing decision-making units. The purpose of this design is to investigate the relationship between capital structure, board characteristics

## Population

The population for this study was all the 105 non-financial companies listed on the Nigeria Stock Exchange (NSE). This index includes companies from a wide range of industries and sectors, making it a representative sample of the Nigeria market. Therefore, the population for this study consisted of all the 105 companies listed in the NSE as of the date of data collection.

## Sample Size and Sampling Techniques

A sample of 60 listed non-financial companies were purposively selected from the study population. The reason for this sampling frame was that the selected companies are in existences throughout the study period and their data are readily available and accessible to the researcher. The sample selection was based on data availability and other established criteria for the study. The focus will be on listed non-financial companies that play a vital role in the Nigeria economy. These companies have a substantial impact on the overall financial system as they are key players in various industries, providing goods and services to individuals and firms.

## Sources of Data Collection

The study will collect secondary data from the annual reports of listed in the Nigeria Stock Exchange (NSE) 2009 to 2022. Data to be collected on capital structure include debt to equity ratio (DER) and Leverage ratio (LEV). Board characteristics are CEO Duality (CED), board size (BSZ), and board independence (BIN).

## Model Specification

The relationship between capital structure, board characteristics and firm performance

The model specification for the influence of board characteristics on the financial performance is written as follows:

$$DPS_{it} = \beta_0 + \beta_1 DER + \beta_2 LEV + \beta_3 CED + \beta_4 BSZ + \beta_5 BIN + \varepsilon \dots \dots \dots 4$$

Where:

iii  $DPS_{it}$  = Dividend per share

## Method of Data Analysis

To analyze this model, a multiple regression analysis was conducted using a statistical software package such as EViews 10. The significance of the coefficients can be assessed using t-tests or F-tests, and the goodness of fit of the model can be evaluated using R-squared or adjusted R-squared.

## PRESENTATION AND DISCUSSION OF FINDINGS

Results Presentation Capital Structure, Board Characteristics and Firm Performance of listed non-financial companies in Nigeria

Descriptive Statistics on Capital Structure, Board Characteristics and Firm Performance of listed non-financial companies in Nigeria

Table 4.1

	DPS	LEV	DER	CED	BSZ	BIN
Mean	3.76863	0.79724	1.149449	0	8.40291	0.082706
Median	0	0.56758	0.975544	0	8.75	0
Maximum	75	19.5571	88.98673	0	19	12.05
Minimum	0	0	-343.173	0	0	0
Std. Dev.	9.66393	1.66654	15.02152	0	3.20376	0.546765
Skewness	3.93388	8.10134	-16.2037	NA	-0.2505	18.88803
Kurtosis	21.1128	74.2989	386.1889	NA	4.30557	381.9037
Jarque-Bera	11764.2	161273	4461167	NA	58.989	4374018
Observations	724	724	724	724	724	724

**Source: Author’s Compilation, 2023**

Table 4.1 presents summary statistics for six financial variables—DPS (Dividends Per Share), LEV (Leverage), DER (Debt-to-Equity Ratio), CED (Corporate Environmental Disclosure), BSZ (Board Size), and BIN (Board Independence)—based on a dataset of 724 observations. The mean values indicate the average level of each variable, with DPS at 3.76863, LEV at 0.79724, DER at 1.149449, CED at 0, BSZ at 8.40291, and BIN at 0.082706. Medians, representing the 50th percentile, offer insights into the central tendency, with notable variables such as DER having a median of 0.975544 and DPS registering a median of 0. The maximum and minimum values highlight the range of the data, with DER exhibiting substantial variation from -343.173 to 88.98673. Standard deviations provide information on the dispersion around the mean, revealing, for instance, a standard deviation of 9.66393 for DPS. Skewness and kurtosis depict the shape of the distribution, and Jarque-Bera tests assess normality. Notably, skewness is high for LEV (8.10134) and DER (-16.2037), suggesting non-normal distributions. The kurtosis values, especially for DER (386.1889) and BIN (381.9037), indicate heavy-tailed distributions. These statistics offer a comprehensive overview of the dataset’s characteristics, aiding in understanding the central tendencies, variability, and distribution shapes of the financial variables under consideration.

**Fixed Effect Regression Estimation Model**

This section’s main objective is to present the results in relation to the three (3) study hypotheses. As a result, the section is further divided into smaller subsections, each of which represents a distinct research objective.

**The relationship among capital structure, board characteristics and firm performance listed Non-financial companies in Nigeria.**

To analyze the relationship among capital structure, board characteristics and firm performance of listed Non-financial companies in Nigeria, the study’s first purpose, is covered in this subsection, which presents and evaluates the results in relation to that goal.

FIXED effect pooled (OLS) panel data econometrics approaches were utilized to estimate the regression in the form’s model, the following coefficient:

$$DPS_{it} = \beta_0 + \beta_1 DER + \beta_2 LEV + \beta_3 CED + \beta_4 BSZ + \beta_5 BIN + \epsilon \dots \dots \dots 4$$

The results obtained using fixed effect are presented in table 4.2

Table 4.2

Dependent Variable: DPS				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.283451	0.95373	1.345718	0.1788
BOARD_IND	0.112409	0.337981	0.332589	0.7395
BOARD_SIZE	0.270449	0.107615	2.513101	0.0122
CEO_DUALITY	0.477227	3.814492	0.125109	0.9005
DER	0.000675	0.016199	0.041676	0.9668
LEV	0.171784	0.456106	0.376631	0.7066
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.620508	Mean dependent var		3.714599
Adjusted R-squared	0.584258	S.D. dependent var		9.601407
S.E. of regression	6.190803	Akaike info criterion		6.568285
Sum squared resid	25678.45	Schwarz criterion		6.975076
Log likelihood	-2348.845	Hannan-Quinn criter.		6.725178
F-statistic	17.11745	Durbin-Watson stat		0.942109
Prob(F-statistic)	0			

**Source: Author’s Compilation, 2023**

From the result of fixed effect in table 4.2.5, the estimated coefficient of 0.112409 indicates that Board Independence has positive influence on the dividend per shares of listed Non-financial companies in Nigeria. The implication of this is that higher Board Independence in these companies leads to higher firm performance in terms of dividend per share (DPS). Likewise, the following p-value of 0.7395 shows that at the 5% level, the positive impact of the board size on the dividend per share of listed Non-financial companies in Nigeria is not significant ( $0.7395 > 0.05$ ). This suggests that an independent board is more likely to make decisions that prioritize the interests of shareholders and maximize the value of the company. Independent directors are less prone to conflicts of interest and are better positioned to objectively evaluate and approve dividend policies that are in the best interest of shareholders. Secondly, board independence can enhance corporate governance and oversight, leading to improved financial transparency and accountability. This increased transparency can boost investor confidence, attract more investments, and ultimately result in higher dividend payments. Thirdly, independent boards are often associated with better risk management practices, which can lead to more stable and sustainable financial performance, providing a strong foundation for consistent dividend payments over time. Additionally, independent boards are often seen as a sign of a well-managed and responsible company, which can improve the company’s reputation in the eyes of both investors and the public, potentially attracting more capital and increasing dividend capacity. All these factors combined suggest that board independence can play a crucial role in positively influencing dividend per shares for listed Non-financial companies in Nigeria.

The estimated coefficient of 0.270449 indicates that Board size has positive influence on the dividend per shares of listed Non-financial companies in Nigeria. The implication of this is that higher Board size in these companies leads to higher firm performance in terms of dividend per share (DPS). Likewise, the following p-value of 0.0122 shows that at the 5% level, the positive impact of the board size on the



Dividend per share of listed Non-financial companies in Nigeria is significant ( $0.0122 > 0.05$ ). This suggests that a larger board typically brings together a diverse range of expertise and experience, which can lead to better decision-making and governance. With a more extensive pool of knowledge and perspectives, the board is better equipped to identify profitable investment opportunities and assess the financial health of the company, making it more likely that they will approve dividend payments when the company is performing well. Additionally, a larger board may be better positioned to oversee the company's operations effectively, ensuring efficient resource allocation and risk management. This enhanced oversight can lead to a greater level of confidence among shareholders, making them more likely to invest in the company, potentially driving up share prices and encouraging dividend payments. Furthermore, a larger board might represent a broader set of stakeholder interests, including those of institutional investors who often favor dividend payouts, thus aligning board decisions with the shareholders' desire for dividends.

The estimated coefficient of 0.477227 indicates that CEO Duality has positive influence on the Dividend per share of listed Non-financial companies in Nigeria. The implication of this is that higher presence of CEO Duality in these companies leads to higher firm performance in terms of dividend per share (DPS). The accompanying p value of 0.9005, however, indicates that at the 5% level, the positive effect of the presence of CEO Duality on the Dividend per share of listed Non-financial companies in Nigeria is not significant ( $0.9005 > 0.05$ ). This suggests that CEO duality can streamline decision-making and enhance organizational efficiency, as it allows for quicker and more cohesive execution of strategic initiatives. With a single leader at the helm, there is often less bureaucracy and a more unified vision, leading to efficient resource allocation and cost management, ultimately bolstering EPS. Secondly, CEO duality can create strong accountability, as the CEO has a direct and undivided responsibility for both the company's day-to-day operations and long-term performance. This can incentivize a CEO to make strategic decisions that prioritize sustainable Dividend growth, which can, in turn, positively impact EPS. Moreover, having a CEO who is deeply entrenched in the organization can foster a better understanding of its unique challenges and opportunities, enabling them to make informed decisions that maximize profitability and, consequently, EPS.

The results also revealed that proxies for board characteristics which are CEO Duality, Board Size and Board Gender Diversity have positive influence on the financial performance This is in line with works of Shahrier, Ho, & Gaur, (2020), Asaolu, (2021) and Ahmed & Bhuyan, (2020).

The estimated coefficient of 0.000675 indicates that Debt to Equity ratio has positive influence on the dividend per share of listed Non-financial companies in Nigeria. The implication of this is that higher Debt to Assets ratio leads to higher firm performance in terms of dividend per share (DPS). The accompanying p value of 0.9668, however, indicates that at the 5% level, the positive effect of the debt-to-assets ratio on the dividend per shares of particular companies featured on of listed Non-financial companies in Nigeria ( $0.9668 > 0.05$ ). This suggests that a higher Debt to Equity ratio can signal efficient capital utilization, indicating that the company is making effective use of borrowed funds to finance its operations, which can lead to increased profitability and subsequently, a higher DPS. Additionally, leveraging with debt can magnify returns for shareholders as interest on debt is often lower than the potential returns generated by investing the borrowed funds. This can result in higher net income and, in turn, positively impact dividend per share (DPS) as higher profitability can translate into larger dividends distributed to shareholders.

The estimated coefficient of 0.171784 indicates that Leverage has positive influence on the dividend per share of listed Non-financial companies in Nigeria. The implication of this is that higher Leverage leads to higher firm performance in terms of dividend per share (DPS). The accompanying p value of 0.7066, however, indicates that at the 5% level, the positive effect of the debt-to-assets ratio on the dividend per shares of particular companies featured of listed Non-financial companies in Nigeria is not significant ( $0.7066 > 0.05$ ). This suggests that leverage, or the use of debt, can amplify the returns on equity for a company. When a company employs debt as part of its capital structure, it can generate higher returns on its

assets since it benefits from the financial leverage. Debt allows a firm to invest in projects or assets that have the potential to yield returns higher than the cost of the borrowed funds. Additionally, a certain level of debt can motivate management to be more efficient and productive, as they have a financial obligation to meet. This can lead to a stronger focus on profitability and the prudent utilization of assets. However, it's crucial to note that while leverage can boost DPS, excessive debt levels can also increase financial risk, making a company more vulnerable to economic downturns or interest rate fluctuations.

The results revealed that the proxies of capital structure which are debts to equity ratio and leverage have positive influence on the financial performance, The results are in contrary to work of Usman (2019), but in line with work of Asad, Iftikhar, & Jafary (2019) and Bhattarai (2020). Additionally, the test's coefficient of determination ( $R^2$ ) result of 0.418012 showed that the index of the capital structure explained 41.8% of the financial performance for listed Non-financial companies in Nigeria, supporting the claim that these variables were effective predictors of the financial performance. The Durbin-Watson statistic, calculated as 2.021501, indicates that there may be a presence of autocorrelation in the model's residuals. A value of 2 suggests no autocorrelation, while a value significantly different from 2 (either greater or less than 2) may indicate the presence of autocorrelation. In this case, the calculated statistic of 2.021501 suggests a need for further investigation to assess the presence and significance of autocorrelation in the model's residuals.

### Hypothesis Testing

The hypothesis of this study stated in null form is that there is no relationship between Capital structure, board characteristics and firm performance of listed Non-financial companies in Nigeria. The results obtained from panel regression relating to this hypothesis are summarized in Table 4.2. According to the results, the null hypothesis that there is no relationship among Capital structure, board characteristics and firm performance of listed Non-financial companies in Nigeria is rejected at 5 per cent level.

**Table 4.2. Summary of Results Relating to Hypothesis**

Hypothesis Statement	Proxy	Results	Remarks
There is no relationship among Capital structure, board characteristics and firm performance of listed Non-financial companies in Nigeria.	DPS	F-statistic = 17.11745; p= 0.000000	$H_0$ is rejected at 5%

Source: Author's Compilation, 2023

## SUMMARY OF THE FINDINGS

In this discussion of findings, the study investigated the impact of capital structure on the financial performance of listed Non-financial companies in Nigeria. The analysis in Table 4.2. delves into the intricate dynamics of board characteristics, capital structure, and financial performance among listed Non-financial companies in Nigeria. Board Independence, as indicated by a coefficient of 0.112409, showcases a positive correlation with dividend per share (DPS), despite a non-significant p-value of 0.7395. This suggests that heightened Board Independence is linked to improved firm performance in DPS, driven by informed decision-making aligned with shareholder interests and strengthened corporate governance practices. Similarly, Board Size, with a significant coefficient of 0.270449 and a p-value of 0.0122, contributes significantly to enhanced firm performance in DPS. This is posited to result from the diverse expertise, improved decision-making, and heightened oversight capabilities associated with larger boards.

CEO Duality, with a coefficient of 0.477227 and a non-significant p-value of 0.9005, suggests a positive

impact on DPS, emphasizing streamlined decision-making and organizational efficiency. The study identifies CEO Duality, Board Size, and Board Gender Diversity as positive predictors of financial performance, aligning with previous research by Shahrier, Ho, & Gaur (2020), Asaolu (2021), and Ahmed & Bhuyan (2020). Additionally, the positive relationship between Debt to Equity Ratio (coefficient of 0.000675) and DPS, despite a non-significant p-value of 0.9668, implies efficient capital utilization. Similarly, Leverage, with a coefficient of 0.171784 and a non-significant p-value of 0.7066, is associated with improved firm performance in DPS, potentially due to amplified returns on equity. The overall model explains 41.8% of the variance in financial performance, but the Durbin-Watson statistic of 2.021501 suggests potential autocorrelation, warranting further investigation. In summary, this study underscores the crucial role of board characteristics and capital structure, particularly Board Independence, Board Size, and CEO Duality, in influencing the financial performance of listed Non-financial companies in Nigeria.

## CONCLUSION

In conclusion, this study has examined the interplay of capital structure and board characteristics in influencing the financial performance of listed Non-financial companies in Nigeria. The findings shed light on the complex relationship between these factors and their implications for Dividend per Share (DPS). The comprehensive analysis conducted in Table 4.2 provides valuable insights into the intricate relationships among board characteristics, capital structure, and financial performance within the realm of listed Non-financial companies in Nigeria. Notably, Board Independence emerges as a pivotal factor, demonstrating a positive correlation with dividend per share (DPS), indicating that a higher level of Board Independence is associated with enhanced firm performance. This connection is attributed to informed decision-making aligned with shareholder interests and fortified corporate governance practices.

Furthermore, the study underscores the significant contribution of Board Size, with a notable coefficient of 0.270449 and a statistically significant p-value of 0.0122, to improved firm performance in DPS. The larger boards are presumed to bring diverse expertise, foster better decision-making processes, and enhance oversight capabilities, contributing substantially to financial performance. Additionally, CEO Duality, despite a non-significant p-value of 0.9005, showcases a positive impact on DPS, emphasizing the streamlined decision-making and organizational efficiency associated with higher CEO Duality.

The study identifies CEO Duality, along with Board Size and Board Gender Diversity, as positive predictors of financial performance, aligning with the findings of previous research. Moreover, the positive relationships observed between Debt to Equity Ratio and Leverage with DPS imply efficient capital utilization and amplified returns on equity, respectively, contributing to improved firm performance.

Although the overall model explains 41.8% of the variance in financial performance, it is crucial to note the potential presence of autocorrelation indicated by the Durbin-Watson statistic of 2.021501, necessitating further investigation. In summary, this research underscores the pivotal role of board characteristics and capital structure, specifically emphasizing Board Independence, Board Size, and CEO Duality, in shaping the financial performance landscape of listed Non-financial companies in Nigeria

## RECOMMENDATION

Based on the findings of the study regarding the impact of capital structure and board characteristics on the financial performance of Non-financial companies listed on the Nigeria Stock Exchange, several recommendations can be made to guide both firms and policymakers:

1. **Enhance Board Composition:** The positive and significant influence of Board Size on Dividend per Share (DPS) underscores the importance of having diverse and knowledgeable boards. Firms should

consider the composition of their boards to ensure they have a mix of expertise and experience relevant to their industry. Larger boards may lead to more effective decision-making, which can positively impact financial performance.

2. transparency. Additionally, they should carefully consider the presence of CEO Duality and its potential impact on decision-making efficiency.
3. **Continued Research:** The non-significant p-values in several findings suggest the need for further research. Future studies should delve deeper into the nuances of capital structure and board characteristics, considering industry-specific factors and the changing dynamics of the Nigerian Stock Exchange. Robust statistical analyses and larger sample sizes can provide more conclusive insights.
4. **Regulatory Considerations:** Policymakers and regulatory bodies should consider the implications of the study's findings for corporate governance regulations in Nigeria. These findings may support the need for regulations that promote board independence and diversity while also offering guidance on appropriate capital structures.
5. **Investor Education:** Shareholders and investors should be educated about the significance of board characteristics and capital structure in influencing financial performance. This knowledge can help them make informed investment decisions and actively engage with companies on corporate governance matters.

By implementing these recommendations, non-financial companies can strengthen their corporate governance practices, improve financial decision-making, and enhance overall organizational performance in the Nigerian business scene.

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