

Mediating Role of Capital Structure on the Relationship between Corporate Governance and Performance of Consumer Goods Firms in Nigeria

By

Amina Dahir Salman & Mukhtar Shehu Aliyu

Department of Entrepreneurship, Baba Ahmed University, Kano,
amina.salman@babaahmeduniversity.edu.ng.

Department of Business Administration and entrepreneurship, Bayero University Kano.

ABSTRACT

The main objective of this research is to examine the mediating role of capital structure on the relationship between corporate governance and performance of consumer goods firms, Nigeria for the period of 2018-2022. An ex-post facto research design was adopted, all the consumer goods firm listed on the Nigerian Securities and Exchange Commission were censured and filtered through applying criteria, for a company to be part of the sample, it must be listed before 2018 and secondly, the data needed can be identified in the financial statement of such firms. The application of the criteria resulted to the selection of 10 firms as a sample size of the study. The STATA v.14 was adopted to test the hypotheses developed in this study. Based on the findings of the study, corporate governance measures (i.e. board size, director ownership) has significant effect on performance of consumer goods firms in Nigeria. The study also reveals that capital structure has a strong positive effect on the performance of consumer goods firms in Nigeria. The finding of the mediating role of capital structure shows that capital structure partially mediate the relationship between corporate governance (i.e. board size) and performance of consumer goods firms in Nigeria, and fully mediate relationship between corporate governance (i.e. director ownership) and performance of consumer goods firms in Nigeria. The study concludes that the fundamental reason why corporate governance (i.e. board size, director ownership) has impact on the performance (Tobins Q) of listed consumer goods firms in Nigeria is depend on their capital structure.

Keywords: Performance, Capital Structure, Corporate Governance, Board Size.

Introduction

The performance of any firm not only plays the role of increasing the market value of that specific firm but it also leads to the growth of the whole industry which ultimately leads to the overall prosperity of the economy. The subject of financial performance has received significant attention from scholars in the various areas of business and strategic management

(Kwaltommai et al, 2019). It has also been the primary concern of business practitioners in the consumer goods industry since financial performance has implications to organization's health and ultimately its survival. High performance reflects management effectiveness and efficiency in making use of a company's resources and

this, in turn, contributes to the country's economy at large (Naser & Mokhtar, 2004).

The possibility of any profit-oriented organization to excel in a competitive market environment depends on its ability to meet up with the immediate demands of its customers, stakeholders and investors (Sani & mamuda, 2020). The continuity of a business set up is determined by its performance in the industry. A well performing business secures its long term achievements effectively and efficiently (Kakanda, Bello & Abba, 2016). Therefore, it is a life wire gauge for evaluating, monitoring managerial and measuring performance of those charged with the responsibility of corporate management, including the overall roles of the board in maintaining the wheel of the entity. Corporate organizations are in dare need of good corporate governance mechanism to drive home its desired goal and objectives (Abolo, 2023).

Corporate governance is needed to align the interest of owners and managers. The key elements of corporate governance are a concern with the enhancement of corporate performance via the supervision or monitoring of management performance and ensuring the accountability of management to shareholders and another stakeholder,

based on the regulatory framework (Arora & Bodhanwala, 2018). Good governance would surely have a significant impact on company performance with strategic decisions and effective monitoring conducted by the board of directors. As owners' interests may be different from representatives' interests, corporate governance can work as a mechanism to align the interests of stakeholders and management. Companies that follow well-defined corporate governance practices are better able to manage effective mechanisms, control oversight, offer more opportunities to flourish, and have better access to resources and hence improve overall performance as well as reduce risks (Bhagat & Bolton 2019). In the corporate system of an organization, corporate financing decisions like capital structure made by board of directors are of crucial importance. Any decisions made by a corporate board can have impact on financial leverage policy (Kijkasiwat, et al., 2022). Capital structure constitutes a substantial part of an organization and therefore, the way in which it is managed will have a significant impact on the profitability of the company concerned. The choice of capital structure is fundamentally an organizational problem. In the case of Nigeria, the capital structure

decision is crucial, as the decision becomes even more difficult in times when the economic environment in which the company operates presents a high degree of instability (like the case of Nigeria). A Firm can issue dozens of distinct securities in countless combination, but the attempts to find the particular combination that maximizes its overall market value is very critical (Brealy & Mayers, 2001) The capital structure to be adopted by a business or organization is a critical decision for the management to make. The decisions are both critical and crucial because of the need to maximize returns to various organizational constituencies and the impact that such decision has on an organization's ability to deal with its competitive environment. It is left to a company to decide to finance its investment either by debt and/or equity. This critical financial decision will have an effect on the debt/equity ratio (debt-equity mix) of the firm. The implication of this debt-equity mix is evident in, but not limited to the shareholders' earnings, cost of capital and the market value of the firm (Usman, 2019).

In addition, some researches suggest that corporate governance has a significant effect on financial performance (Vu et al. 2018; Dobija et al. 2022; Guney et al. 2020;

Mohsni et al. 2021; Ozdemir 2020; Abolo, 2023; Lawal, et al., 2022; Tariq & Naveed 2016; Ganguli and Guha 2021) but to improve the explanatory power of this model, the study introduces capital structure as a mediating variable since some literatures shows that capital structure affect firms financial performance (Al-Najjar, & Clark, 2017; Farooq, et al., 2017; Fosu, et al., 2016; Bokpin, 2009; Bhagat, & Bolton, 2008) and corporate governance affect capital structures of organizations (Le & Tannous, 2016; Bokpin & Arko, 2009; Iqbal and Javed, 2017). This study seeks to improve upon the other scholars by introducing capital structure as mediating variable in the relationship between corporate governance and firm's financial performance. The study provides insights and directions for firms that have interest in competing at the open market to channel all their efforts and resources towards areas that would improve their performance.

2.0 Review of Related Literatures

2.1 The Concept Financial Performance

Financial performance shows how well a company uses its resources to meet the needs of its investors and other stakeholders (Man & Wong, 2013). Firm's financial performance can be defined as a process by which company manages its resources in

line with its operational strategies and objectives to develop competitive advantage. To Ibrahim and Abdullahi (2019), financial performance is the ability of a firm to maximize its cost of operations, efficiently use its assets and maximize the value of shareholders. It shows the effectiveness and efficiency of management in the use of corporate resources. They further stress that it is an attempt by a firm to meet established goals or effective productivity, measure of its earnings, profits and appreciation in value which is disclosed by the rise in the market value of shares. However, how well a company can profit from its primary business activity is a gauge of its financial performance (Gofwan, 2022). Firm's performance can be seen as a broad indicator of its overall financial health from which Trade creditors, bondholders, investors, employees, and management are all stakeholders interested in the business. All of these stakeholders keep an eye on the company's bottom line. Corporate performance measure has different aspects and choosing relevant measures are important for pursuing research intentions. Performance measurements offer insights into appropriate measures for answering research questions (Haniffa & Hudaib, 2006). There are various measures which

have been captured by other studies as a measure for firm performance (e.g., value ratio, labour productivity, net present value, market-to-book value, and earnings per share). The number of units sold could also be used (Griffin & Mahajan, 2019). Since the study aims at finding the mediating effect of capital structure on the relationship between corporate governance and firm's financial performance, Tobin's Q is the most suitable measure of performance for the study as it provides a basis for measuring the firm's investment efficiency, capital allocation and market value. Tobin's Q is the book value of long-term debt and market value of the equity divided by the book value of the total asset.

2.2 Concept of Corporate Governance

Scholars define corporate governance in different ways. Jensen and Meckling (1976) define it as the system by which companies are directed and controlled. While Shleifer and Vishny (1997), on the other hand, stresses on the importance of corporate governance in addressing agency problems between shareholders and managers. And to Tirole (2001), Imhoff (2003), OECD (2004), Keasey et al. (2005), and CBN Codes (2003, 2006) among others, corporate governance encompasses the controls and procedures that exist to ensure that management acts in

the best interest of all the stakeholders, in order to maximize the value of the firm. It also consists of the whole set of legal, cultural, and institutional arrangements that determine what publicly traded corporations can do, who controls them, how that control is exercised, and how the risks and returns from the activities they undertake are allocated. Corporate board size has the power to make, or at least, ratify all important decisions including decisions about investment policy, management compensation policy, and board governance itself. It is also plausible that board members with appropriate stock ownership will have the incentive to provide effective monitoring and oversight of important corporate decisions noted above; hence board size and board ownership can be a good proxy for overall good governance (Bhagat and Bolton, 2008). Furthermore, the measurement error in measuring board size and board stock ownership can be less than the total measurement error in measuring a multitude of board processes, compensation structure, and charter provisions (Bhagat and Bolton, 2019).

2.2.1 Board Size

Board of directors is one of the most important elements of corporate governance mechanism in overseeing the conduct of the

company's business. Board size is defined as the number of directors in the company's board of directors. There are few arguments on whether the larger board performs more than the smaller board size. In the extant literature, agency theorists like Linck et al. (2008), and Lehn et al. (2009), argue that larger boards are more effective in monitoring and advising management because of their ability to collect and process more information than smaller boards. This makes them more effective in checkmating the self-serving behaviour of managers. Others like Jensen (1993) argue that large board sizes can become too clumsy and inefficient. He suggests that board sizes greater than seven or eight directors are less effective and more susceptible to CEO control than smaller boards.

2.2.2 Directors Stock Ownership

The ownership of the board shows that the group of individuals that own the company. There are various types of ownership and all have an impact on how the organization is run. Directors may also be owners as an incentive for them to act in the interests of the shareholders (Goel 2018); as the assumption is that when the directors' interests are aligned with those of the shareholders then they would want to

maximize their wealth too (Mahn-Chien et al 2018). This can also encompass other key members of the organization like auditors to form institutional ownership. According to agency theory, directors are opportunistic unless they have proper incentive (Abdallah and Ismail, 2017; Kumar and Zattoni, 2016), so managerial ownership is important as it acts as an incentive mechanism. The alignment theory argues that to the extent that managers hold shares in their firm, the interests of the shareholders is better served (Jensen and Meckling, 1976).

2.3 Concept of Capital Structure

The capital structure of a firm refers to the arrangement of various financial resources used to finance their operations and capital expenditure (Dahiru & Dogarawa 2021). In financial terms, it refers to the method a company selects to use to finance its assets using a suitable ratio of debt to equity. In the financial statements of business firms, it serves to illustrate the proportionate relationship between debt and equity (Bello et al. 2020). Any of the following formats can be used to define the debt-equity mix: Three options are available: 100% equity: 0% debt (unlevered firm), 0% equity: 100% debt (highly levered), and $X\%$ equity: $Y\%$ debt (capital mix). In order to reduce the cost of capital to a business, capital structure

must be used effectively by preventing the business from taking on more debt than it can handle; carefully thought-out capital structure lowers the risk of insolvency (Opoku-Asante 2022). Three capital structure proxies, including the debt-to-equity ratio, the short-term debt to total assets ratio, and the long-term debt to total assets ratio, were identified by Bello et al. (2020). A leverage ratio called the short-term debt to total assets ratio shows how percent of a company's total assets are financed by short-term debt with a one-year or shorter maturity period. The amount of a company's assets that must be sold off in order to satisfy immediate obligations is also determined by its leverage ratio. According to Meyers and Majluf (1984), businesses that use short-term debt are likely to have greater prospects for growth in their investment opportunities. Utilizing short term indebtedness expands the pool of available external capital and encourages improved business financial performance (Seid 2017). To illustrate how much of a company's assets are financed by long-term debts like long-term loans, bonds, and other securities, the long-term debt to total assets ratio is a leverage ratio. It illustrates the amount of assets that would need to be liquidated in order to pay off long-term

debts. Additionally, the debt to equity ratio is a leverage ratio that assesses how much a company owns vs how much it owes. It evaluates a company's overall debt in relation to the capital that the owners initially contributed and the profits that have been held through time.

2.4.1 Board Size and Financial Performance

The agency theory provides a link between board size and the financial performance of firms (Rashid 2018; Shen et al. 2022). Accordingly, the theory proposes that the board as an agent of owners should provide oversight of management, but that this oversight should correspond appropriately with the size and mixture of the board. A membership of five to nine have been suggested as appropriate (Malik et al. 2021; Guney et al. 2020). Hsu and Yang (2022), note that the board size helps in reducing financial loss in firm output. Uyar et al. (2020), observe that no significant evidence supports the notion that board size has a positive effect on the financial performance of firms. Tseng et al. (2020); Hsu and Yang (2022); Kijkasiwat, et al., (2023), note that the impact of board size on financial performance is at best mixed, stressing that it can only be positive from a corporate social responsibility perspective. Ghosh and

Ansari (2018), note that board size does not affect the performance of Indian cooperative banks. Vu et al. (2018), Dobija et al. (2022), Guney et al. (2020), and Mohsni et al. (2021), have noted that board size has a significant positive impact on ROA, but has no impact on ROE. Ozdemir (2020), has notes that the impact of board size on the financial performance of the US tourism sector is only positively related to Tobin's q. Abolo, (2023); Lawal, et al., (2022), results shows a negative significant relationship between board size and ROE. This leads to the development of the following hypothesis:

H1. Board size has significant effect on financial performance.

2.4.2 Directors Stock Ownership and Financial Performance

Ganguli and Guha (2021) explore the impact of board ownership concentration among other variables on the financial performance of different industries in India. The study employs various methods for analysis including the OLS models and the SLS methods. It reveals that very low ownership board concentration had a negative impact on the financial performance of the organization and that the ideal ownership concentration is between 25% and 75%. It also reveals that board size is positively

associated with increased financial performance, but board independence has the opposite effect.

Tariq and Naveed (2016), seek to determine ownership structure impact on financial performance of Pakistani companies in the textile industry. OLS regression analysis is employed on a period of 6 years. The Economic Added Value method was used to measure financial performance. Familial ownership was found to have positive albeit insignificant association with financial performance. However, government and institutional ownership result in worse and decreased financial performance respectively.

H2. Director's stock ownership has significant effect on financial performance.

2.4.3 Capital Structure and Financial Performance

Following a review of the literature on the relationship between capital structure (CS) and financial performance, some authors i.e., Oyakhire (2019) Garba and Inusa (2017), Dahiru and Dogarawa (2021), Bello et al. (2020) found a positive correlation between capital structure and financial performance, while others Osuji and Odita (2022), Bashiru and Bukar (2021), Olajide and Funmi (2018), and Opoku-Asante (2022) maintained a negative correlation.

Some researchers have also suggested that CS has complemented governance mechanisms in mitigating agency conflicts (Cuomo et al., 2016; Hussainey, & Aljifri, 2012). Hence, many researchers have recommended exploring whether there is a complementary association between CS, CG, and firm performance (Bhatt, & Bhatt, 2017; Detthamrong, & Chancharat, 2017, Dimitropoulos, 2014). This recommendation has arisen because CS as a third variable can be considered a discipline mechanism (Muhammad, et al., 2021; Serrano, & Dimitropoulos, 2017) and is thus expected to have a positive impact on the relationship between CG and firm performance (Al-Najjar, & Clark, 2017; Farooq, et al., 2017; Fosu, et al., 2016; Bokpin, 2009; Bhagat, & Bolton, 2008).

H3. Capital structure has significant effect on financial performance.

H4: Capital structure mediates the relationship between board size and financial performance.

H5. Capital structure mediates the relationship between Director's stock ownership and financial performance.

2.4.4 Corporate Governance and Capital Structure

Berger et al. (1997), find that when the board of directors is larger, leverage is

lower. Heng, Azrbaijani, and San (2012), study Malaysian companies and find that companies with larger boards could enhance their performance by driving the management to reduce the firm's debt financing. Moreover, Ranti (2013) discovers that there is a significant negative relationship between both of them, and concludes that firms with a smaller board size tend to have greater leverage, which they can use to reduce their agency problems. This is because a firm with a larger board strictly monitors and controls the management team.

Wellalage, Locke, and Acharya (2018) averse that managerial ownership negatively affects the debt of New Zealand firms. Moreover, Ruan, Tian, and Ma (2011); Wahba, (2014) realizes that there is a negative relationship when the CEO's proportion of ownership is either lower than 18% or over 46%, and the debt level increases as the percentage of ownership increases in the Chinese market. Conversely, Berger et al. (1997), report that a relationship between both of them is significantly positive. They state that managers with financial incentives are more closely aligned with outside shareholders and will pursue a more levered capital structure to increase the value of the firm.

Moreover, Shoaib and Yasushi (2015), report that when CEO ownership level is at a low level in Pakistan, it has a positive impact on firm leverage. In addition to these, Le and Tannous (2016) and Bokpin and Arko (2009), find that the managerial shareholding has a significant positive effect on the debt ratio. Iqbal and Javed (2017), examine the moderating role of CG in the association between CS and FP, using firms listed in the Karachi Stock Exchange and find that CG positively moderates the relationship between CS and FP.

H6: Board size has a significant effect on capital structure.

H7. Director's stock ownership has significant effect on capital structure

2.5 Theoretical Review

2.5.1 Stewardship Theory

Contrary to Agency, Resource Dependence and Signaling Theories that place emphasis on managerial opportunism and monitoring stewardship theory posits that executive managers are intrinsically trustworthy individuals (Nicholson & Geoffrey, 2003). Subsequently, managers should be fully empowered to run firms because they are good stewards of the resources entrusted to them (Letza et al., 2004). Furthermore, stewardship theory makes several assumptions about the behaviour of senior

managers. Firstly, it assumes that since top managers usually spend their entire working lives in the company they govern; they are more likely to understand the businesses better than outside directors and so can make superior decisions (Donaldson & Preston, 1995; Donaldson & Davis, 1991).

Secondly, executive managers possess superior formal and informal information and knowledge about the firm they manage, which can aid better decision-making (Donaldson & Davis, 1991). Finally, competitive internal and external market discipline and the fear of damaging their future managerial capital ensure that agency costs are minimized (e.g., Fama, 1981; Fama & Jensen, 1983). As a result, proponents of stewardship theory contend that better financial performance are likely to be associated with internal corporate governance practices that grant managers greater powers, such as combining the positions of company chairman and CEO (Farhat, 2014; Nicholson & Geoffrey, 2003; Donaldson & Davis, 1991). It is against this and considering the multidimensional nature of CG impact on firm performance that this study adopts in contrast, stewardship theory that suggests that, due to agents (stewards/managers) information and knowledge advantages over shareholders, better

financial performance is likely to be associated with greater managerial trust and powers.

Trade off Theory

Modigliani and Miller (1958), develop the trade-off theory. The trade-off theory of capital structure suggests how the optimal level of debt and equity in the company's capital structure is chosen to derive maximum benefits from the tax shield as the interest expense is considered as tax-deductible expense (Kraus & Litzenberger, 1973). In addition, it is also helpful in choosing the best financing level of debt and equity that will save the organization from financial troubles (Peizhi & Ramzan, 2020). According to Thakolwiroj, 2021, the more a firm uses debt financing, the more it increases its firm value. Consequently, the optimization of the capital structure should consider the cost and benefit analysis because the cost of debt is a lower cost than the cost of equity. Kraus and Litzenberger (1973), view that firms with heavy debt financing will make more tax savings but on the other hand, the firm value will decrease when a firm confronts the costs of financial distress.

3.0 Methodology

This study adopts ex-post facto design. The population consists of all the 22 consumer

goods firms listed on the Nigerian Stock Exchange as at the year 2022. The study adopts filtering criteria to select the sample size by applying two criteria; first, the company must be listed before 2018 and secondly, the data needed can be identified in the financial statement of such firms. Based on the criteria, 10 firms were selected as the sample size of the study. The study uses secondary data which are extracted from the annual reports of consumer goods firms listed on the Nigerian Stock Exchange for the period of five years from 2018 to

2022. The dependent variable financial performance is measured using Tobin's q and the independent variable is corporate governance was measured by board size and directors stock ownership. The mediating variable is capital structure. For the purpose of the presentation and discussion of the result of data generated in the course of these research, descriptive statistics, correlation and regression techniques of data analysis was used in STATA version 14th statistical tools of analysis.

Model Specification

$$FP_{it} = \beta_{0it} + \beta_1 BS_{it} + \beta_2 DO_{it} + \beta_3 Age_{it} + \beta_4 Size_{it} + e_{it}.$$

$$FP_{it} = \beta_{0it} + \beta_5 CS_{it} + \beta_3 Age_{it} + \beta_4 Size_{it} + e_{it}.$$

$$CS_{it} = \beta_{0it} + \beta_1 BS_{it} + \beta_2 DO_{it} + \beta_3 Age_{it} + \beta_4 Size_{it} + e_{it}.$$

$$M_{it} = \beta_{0it} + \beta_1 BS + \beta_2 DO_{it} + \beta_5 CS_{it} + \beta_3 Age_{it} + \beta_4 Size_{it} + e_{it}.$$

$$FP_{it} = \beta_{0it} + \beta_6 M_{it} + e_{it}.$$

$$FP_{it} = \beta_{0it} + \beta_1 BS + \beta_2 DO_{it} + \beta_5 CS_{it} + \beta_6 M_{it} + \beta_3 Age_{it} + \beta_4 Size_{it} + e_{it}.$$

Where:

FP_{it} = Tobin's Q (long-term debt and market value of the equity divided by total asset).

BS_{it} = Board Size (The total number of board members at the end of the fiscal year).

DO_{it} = Directors stock ownership (total number of shares owned by directors).

CS = Capital Structure (Long-term Debt to Total Assets Ratio).

Age_{it} = Age (Measure by counting from year of listing to the periods covered).

$FSize_{it}$ = Firm Size (Measure by natural log. of Total assets).

M_{it} = Mediating effect of capital structure on corporate governance and financial performance.

β_0 = Constant (i.e., the intercept).

$\beta_1 - \beta_6$ = Coefficient of the explanatory variables (i.e., the slope).

e = Error term.

i = Individual firm.

t = Time period (i.e., year).

4.0 Discussion of Results

This section discusses the results of the data collected.

4.1 Descriptive Statistics.

Table 1: Descriptive Statistics.

	N	Minimum	Maximum	Mean	Std. Deviation
FP	50	-0.145	2.721	2.317	0.297
BS	50	6.000	14.000	9.550	3.440
DO	50	0.152	0.370	0.251	0.263
CS	50	0.013	0.175	0.220	0.231
Age	50	1.000	50.00	18.285	12.151
FSize	50	8.112	9.695	8.958	0.496

Source: Author Research Data Analysis (2024).

Table 1 above reveals that Tobins Q has a mean of 2.317, a standard deviation of 0.297. BS mean value (9.00) shows that on the average, the sampled firm have (9.00) board members, therefore, fulfill the corporate governance code rules. DO have a minimum value of 0.152 and a maximum of 0.370, and has a standard deviation of 0.263 which is greater than the mean (0.251) this indicates a faster growth rate during the

period of this study. CS has a minimum value of 0.013 and a maximum of 0.175, and has a standard deviation of 0.231 which is greater than the mean (0.220) this indicates a faster growth rate in the process of study. The table also reveals that consumer goods firms' age which is a control variable ranged between 1 to 50 years, and size (the second control variable) is 8.95% on the average during the period of the study.

4.2 Diagnostics Testing

4.2.1. Heteroskedasticity Tests

Table 2: Heteroskedasticity Tests

	Chi ²	p-value
Breusch-Pagan	51.45	0.475
Ho: (Null)		Accept

Source: Authors Research Data Analysis (2024).

The result in table 3, shows that p-value of the chi-square 52.34 for the FP model was 0.405 which greater than 0.01 (1%), this also

indicates that there is no existence of Heteroskedasticity on residuals of the model.

4.2.2. Normality Test

Table 3: Tests of Normality

	Skewness		Kurtosis	
	Statistics	Std. Error	Statistics	Std. Error
FP	.672	.168	.858	.334
BS	.191	.168	.644	.334
DO	.347	.168	.583	.334
CS	.945	.168	.374	.334
AGE	.225	.168	.913	.334
FSize	.928	.168	.145	.334

Source: Authors Research Data Analysis (2024).

Table 3 shows that all skewness and kurtosis values for the variables were found within the levels determined according to the research results. Therefore, the data are considered to be distributed with a high approximation to normal (Hair et al., 2010).

4.3 Correlation Analysis

The study considers correlation important in detecting the strength and direction of relationship between the study variables, the

values of the correlation coefficient range from -1 to 1. The sign of the correlation coefficient indicates the direction of the relationship (positive or negative), the absolute value of the correlation coefficient indicates the strength, with larger values indicating stronger relationships.

Table 4: Correlation Result

	FP	DO	BS	CS	AGE	SIZE	VIF	Tolerance
FP	1						-	-
DO	0.429	1					1.32	0.784
BS	0.517	0.464	1				1.11	0.900
CS	0.381	0.199	0.233	1			4.04	0.247
AGE	0.552	0.110	0.372	0.256	1		1.50	0.666
SIZE	0.468	0.131	0.401	0.633	0.701	1	3.79	0.264

Source: Authors Research Data Analysis (2024).

Table 4 shows the correlation analysis of the dependent variables: FP (Tobins Q), the independent variable: DO and BS, and mediating variable: CS and the control variables: AGE and SIZE. The relationship between FP and DO is positive and large,

with a coefficient of 0.429, this means that, all things being equal the higher the DO the higher the FP. The relationship between FP and BS is positive and large, with a coefficient of 0.517, this means that, all things being equal the higher the BS the

higher the FP. The relationship between FP and CS is positive but medium, with a coefficient of 0.381, this means that, all things being equal the higher the CS the higher the FP. The table also indicates that the variance inflation factor (VIF) is less than 10 and tolerance is greater than 0.1. Myers (1990) suggests that a variance inflation factor (VIF) value greater than 10 calls for concern, however, for this study, the VIF values are less than 10.

4.4 Regression Analysis

This study attempts to answer the question thus: to what extend does capital structure mediate the relationship between corporate governance and firm performance? This

paper presents the empirical results. Model 1 test the relationship between corporate governance variables (BS and DO) and firm performance, all dimensions of corporate governance regress with firm performance. Model 2 test the relationship between corporate governance variables (BS and DO) and capital structure (CS), all dimension of corporate governance regress with capital structure. Model 3 shows regressed dependent variable firm performance and capital structure. Model 4 shows regressed mediating role of capital structure on the relationship between corporate governance and firm performance.

Table 5: Regression Models

Variables	Model 1	Model 2	Model 3	Model 4
BS	0.000*** (3.78)	0.009*** (2.61)	-	0.047** (1.99)
DO	0.002*** (3.17)	0.022** (2.29)	-	0.073* (1.79)
AGE	0.675 (0.42)	0.592 (0.54)	0.641 (0.47)	0.056* (1.91)
FSize	0.047** (1.99)	0.016** (2.42)	0.015** (2.44)	0.014** (2.46)
CS	-	-	0.001*** (3.23)	-
Cons	0.008** (1.168)	0.075* (.7329)	0.016** (2.42)	0.041** (2.05)
No of obs	50	50	50	50
R-squared	0.496	0.461	0.358	0.525
F-Statistics	37.264 ***	36.345 ***	33.42***	37.95***
Wald Chi ²	352.16***	349.23***	332.28***	361.85***
Statistics				
Root MSE	.43145	.36671	.33919	.49211

Note: ***, **, * denotes 1%, 5%, and 10% level of significance.

Source: Authors Research Data Analysis (2024).

Table 5 above indicates that the F statistics and Wald chi2 of model 1, 2, 3 and 4 are all significant at 1%, showing that the models are fit for the study. The overall R^2 of model 1, 3 and 4 revealed that 49.6%, 35.8% and 52.5% of change in performance of consumer goods firms in Nigeria is explained by the explanatory variables used in the model 1, 3 and 4 respectively, and 46.1% of change in capital structure of consumer goods firms in Nigeria is explained by the explanatory variables used in the model 2 of the study. The results indicated that board size (BS) $p < 0.05$ has positive and significant impact on firm performance and director ownership (DO) $p < 0.05$ has positive and significant impact on firm performance. Similarly, the results also shows that board size (BS) $p < 0.05$ has positive and significant impact on capital structure and director ownership (DO) $p < 0.05$ has positive and significant impact on capital structure. It also indicated that capital structure (CS) $p < 0.05$ have statistically significant influence on the performance of consumer goods firms in Nigeria.

Meanwhile, Baron and Kenny's (1986), methods is used to test the mediation effect of capital structure with corporate governance and firm performance. If the relationship between the corporate

governance and firm performance becomes insignificant in equation (4) after entering the capital structure said to be the full mediation. Capital structure partially mediates the relationship between the corporate governance and firm performance when equation (4) weaker than equation (1). Table 5 results describe that the board size (BS) having positive correlation with performance, and with capital structure (CS) positive correlation, but after entering the capital structure, the $p < 0.05$ ($p=0.047$) which represent that there is partially mediation with board size and firm performance. Director ownership (DO) relationship with firm performance is positive and significant and with capital structure (CS) the relationship is also positive and significant, but after entering the capital structure as a mediating variable, the $p > 0.05$ ($p=0.073$) which represent that capital structure full mediation with director ownership and firm performance.

4.4.2 Test of Research Hypotheses and Discussion of Findings

The findings indicate that there is significant relationship between board size and firm performance (Tobins Q); therefore, the null hypothesis one which states that board size has no significant effect on the performance (Tobins Q) of listed consumer goods firms

in Nigeria is hereby rejected. The findings are in line with Kijkasiwat, Hussain, and Mumtaz, (2023), Huynh, Hoque, Susanto, Watto, and Ashraf, (2022) and in contrary with Abolo, (2023). There is significant relationship between director ownership and firm performance (Tobins Q); therefore, the null hypothesis number 2, which states that director ownership has no significant effect on the performance (Tobins Q) of listed consumer goods firms in Nigeria, is hereby rejected. The findings are in line with that of Ghosh and Ansari (2018) and Vu et al. (2018) and in contrary with the study of Hsu and Yang (2022) and Tseng et al. (2020).

This study also shows that there is significant relationship between board size and capital structure; therefore, the null hypothesis three which states that board size has no significant effect on the capital structure of listed consumer goods firms in Nigeria is hereby rejected. The findings is in line with Vu et al. (2018), Dobija et al. (2022), Guney et al. (2020), and Mohsni et al. (2021), and in contrary with the Uyar et al. (2020). There is significant relationship between director ownership and capital structure; therefore, the null hypothesis 4 which states that director ownership has no significant effect on the capital structure of listed consumer goods firms in Nigeria is

hereby rejected. The findings are in line with that of Tariq and Naveed (2016), and in contrary with the study of Ganguli and Guha (2021). There is significant relationship between capital structure and firm performance (Tobins Q); therefore, the null hypothesis five which states that capital structure has no significant effect on the performance (Tobins Q) of listed consumer goods firms in Nigeria is hereby rejected. The findings is in line with that of Oyakhire (2019), Garba and Inusa (2017), Dahiru and Dogarawa (2021), Bello et al. (2020), and in contrary with the study of Osuji and Odita (2022), Bashiru and Bukar (2021), Olajide and Funmi (2018), and Opoku-Asante (2022).

Meanwhile, the results indicates that capital structure partially mediate the relationship between board size and firm performance (Tobins Q); therefore, the null hypothesis six which states that capital structure doesn't mediate the relationship between board size and performance (Tobins Q) of listed consumer goods firms in Nigeria is hereby rejected. The results also show that capital structure fully mediate the relationship between director ownership and firm performance (Tobins Q); therefore, the null hypothesis seven which states that capital structure doesn't mediate the relationship

between director ownership and performance (Tobins Q) of listed consumer goods firms in Nigeria is hereby rejected. These results suggest that the fundamental reason why corporate governance (i.e. board size, director ownership) has impact on the performance (Tobins Q) of listed consumer goods firms in Nigeria is depend on their capital structure.

5.0 Conclusion and Recommendation

The study investigated the mediating effects of capital structure on the relationship between corporate governance and performance of consumer goods firms in Nigeria. Based on the findings, corporate governance measures, (i.e. board size, director ownership) have significant effect on performance of consumer goods firms in Nigeria. The study also reveals that capital structure has a strong positive effect on the performance of consumer goods firms in Nigeria. The finding of the mediating role of capital structure shows that capital structure partially mediate the relationship between corporate governance (i.e. board size) and performance of consumer goods firms in

Nigeria, and fully mediate relationship between corporate governance (i.e. director ownership) and performance of consumer goods firms in Nigeria. The study concludes that the fundamental reason why corporate governance (i.e. board size, director ownership) has impact on the performance (Tobins Q) of listed consumer goods firms in Nigeria is depend on their capital structure. These results are robust to alternative econometric specifications and variable definitions. This study utilizes certain firm-specific characteristics to represent the CS to assess its role as a mediating variable in the relationship between CG (i.e. board size, director ownership) and firm performance. This study makes a contribution to the literature by showing that CS mediates the relationship between CG and firm performance. It is therefore, recommended that manager of consumer goods firms in Nigeria should consider the optimal mixed of corporate governance mechanisms (i.e. board size, director ownership) and capital structure as it proved that capital structure mediate the relationship.

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