

BOARD STRUCTURE AND FINANCIAL PERFORMANCE OF LISTED CONSUMER GOODS COMPANIES IN NIGERIA

Leatu Sungba'a Philip

Department of Accounting,
Adamawa State Polytechnic, Yola
leatuhod@gmail.com

Sunday Simon, PhD

Department of Accounting
Kogi State University, Anyigba
simonsunday016@gmail.com

Augustine Stephen Hayatu

Department of Business Administration and Management,
Adamawa State Polytechnic, Yola
hayatuaugustine69@gmail.com

Muhammed Mahmud Kakanda, PhD

Department of Accountancy,
Faculty of Social and Management sciences,
Modibbo Adama University, Yola,
Adamawa State, Nigeria.
mmkakanda1@mau.edu.ng

Abstract

Board structure represents one of the core issues in corporate governance. This study investigates the influence of board structure on the financial performance of listed consumer goods companies in Nigeria. The study utilised an ex-post factor research design, examining a population of 20 consumer goods companies. The sample size consisted of 10 consumer goods companies listed on the Nigerian Exchange Group (NGX), spanning from 2013 to 2022. The data for this study were obtained from the published annual accounts and reports of the sampled firms. A random effect regression model and a panel-corrected standard error regression were utilised for data analysis. The study showed that expertise, and ownership of the board have an insignificant effect on return on equity. The study also discovered that board expertise, and board ownership were found to have a significant negative impact on the operating profit of the firms included in this study. Hence, the study strongly recommended that members of the boards of listed consumer goods companies in Nigeria prioritise matters directly linked to their companies, as these have a significant impact on financial performance.

Keywords: Financial Performance, Board Structure, Board Expertise, Board Ownership, Nigeria

1. Introduction

Today's business environment is not only competitive but also shaped by sustainability pressures, stakeholder expectations, and post-crisis regulatory reforms in many emerging markets. Recent studies link good corporate governance with better financial performance, sustainability outcomes and stakeholder confidence, especially where regulation, ownership structure and board structure are aligned (Boshnak, 2021; Wang et al., 2019; Alodat et al., 2021; Farooq et al., 2021; Puni & Anlesinya, 2020; Coleman & Wu, 2020).

Corporate governance is described as the framework of laws, policies and practices that control and manage firms, ensuring fairness and transparency in relations with shareholders and other stakeholders (Boshnak, 2021; Mrabure & Abhulimhen-Iyoha, 2020). It allocates rights and responsibilities among boards, managers, shareholders and other stakeholders, and provides mechanisms for setting objectives and monitoring performance (Boshnak, 2021; Mrabure & Abhulimhen-Iyoha, 2020). Effective governance reduces corruption and mismanagement and supports capital market and economic development in countries like Nigeria (Alodat et al., 2021; Gabriel & Ibikunle, 2019; Mrabure & Abhulimhen-Iyoha, 2020), thereby improving financial performance.

In Nigeria, corporate governance has evolved through multiple statutes and sectoral codes, including CAMA 2020 (as amended), the Investment and Securities Act, SEC rules, and industry-specific frameworks from the CBN, NAICOM, PENCOM, FRC and NCC (Alodat et al., 2021; Gabriel & Ibikunle, 2019; Mrabure & Abhulimhen-Iyoha, 2020). These frameworks address board size and composition, gender diversity, ownership structure and foreign directors (Alodat et al., 2021; Gabriel & Ibikunle, 2019; Coleman & Wu, 2020; Mrabure & Abhulimhen-Iyoha, 2020).

The organisation of boards generally follows two major perspectives. One perspective argues that boards should support managerial control by allowing executives greater influence because insiders possess deeper knowledge of the company's operations. The second perspective emphasises independent monitoring by external directors to reduce agency problems and align management actions with shareholders' interests (Petra, 2007). Most companies, however, adopt a balanced board structure combining managerial knowledge and external oversight.

Financial performance remains a key indicator of organisational health and sustainability. It reflects how effectively a company utilises its resources to achieve objectives such as profitability, increased market share, improved earnings, and positive returns to shareholders (Ibrahim, 2015). Consequently, the relationship between board structure and financial performance has attracted significant attention from scholars, regulators, and practitioners. Studies suggest that boards play a critical role in supervising management and ensuring strategic decisions that enhance shareholder wealth and organisational profitability (Topal & Dogan, 2014; Al-Manaseer et al., 2012).

The global economic crisis and the collapse of major corporations such as Enron, WorldCom, and Global Crossing raised serious concerns about corporate governance practices, particularly board structure and financial performance. Boards of directors were criticized for weak oversight, failure to protect shareholders' interests, and allowing managers to pursue personal interests, leading to fraud and corporate failures (Al-Manaseer et al., 2012). In Nigeria, several cases of accounting improprieties were linked to ineffective board oversight and poor accountability, prompting reforms such as the Nigerian Code of Corporate Governance (NCCG) introduced by the Securities and Exchange Commission in 2011. Despite these reforms, concerns about weak corporate governance and inadequate board structures persist, especially in the consumer goods sector. Existing studies on the relationship between board structure and financial performance have produced mixed findings. While some studies reported a positive relationship, others found negative effects. Most prior studies focused mainly on the banking sector and often relied solely on Return on Assets (ROA) as a measure of performance. This study therefore seeks to fill the gap by examining the influence of board structure on the financial performance of consumer goods companies in Nigeria using three accounting-based performance measures: Return on Assets (ROA), Return on Equity (ROE), and Operating Profit (OPRT). The study contributes to the growing body of research on corporate governance in emerging economies by providing a

broadier analysis of how board structure affects firm performance in the Nigerian consumer goods sector.

Against this background, the study examined the relationship between board structure measured through board size, board independence, board meeting frequency, board expertise, and board ownership and financial performance indicators such as return on assets, return on equity, and operating profit among consumer goods companies listed in Nigeria.

To address the research objectives of the study, the researchers formulated the following research questions:

- i. Does board expertise affect the financial performance of listed consumer goods companies in Nigeria?
- ii. Does board member ownership affect the financial performance of listed consumer goods companies in Nigeria?

The main objective of this study is to examine the impact of board structure on the financial performance of listed consumer goods companies. Other specific objectives were to:

- i. examine the effect of board expertise on the financial performance of listed consumer goods companies in Nigeria.
- ii. determine the effect of board member ownership on the financial performance of listed consumer goods companies in Nigeria.

In line with the research objectives, the following hypotheses were formulated in null form (H_0) and tested in the study:

H_{01} Board expertise has no significant impact on the financial performance of listed consumer goods companies in Nigeria.

H_{02} Board member ownership has no significant impact on the financial performance of listed consumer goods companies in Nigeria.

2. Literature Review

2.1 Financial Performance

Recent studies still use ROA and ROE as primary accounting-based indicators, often alongside market measures like Tobin's Q. (Boshnak, 2021; Puni & Anlesinya, 2020). Financial performance is commonly framed as efficient use of financial resources reflected in these ratios, dividends, and earnings per share. Operational/operating performance is still proxied by ROA rather than detailed operating profit margins in most governance-performance models (Boshnak, 2021; Danoshana & Ravivathani, 2019).

2.1.1 Return on Assets (ROA)

ROA is commonly defined as **net income divided by total assets**, used as an accounting-based indicator of firm performance in corporate governance studies (Bui & Krajcsák, 2023; Kyere & Ausloos, 2020; Shenurti et al., 2022; Yulianti et al., 2025). ROA measures how efficiently a firm uses all its assets to generate profit and is widely treated as a primary profitability/performance metric in governance and ESG-performance work (Kyere & Ausloos, 2020; Fitrianingsih & Asfaro, 2022; Dongol & Shrestha, 2024; Paridhi & Ritika, 2025). Net profit margin (net income / sales) and related margins are also used to capture profitability and operating efficiency (Kusumadewi et al., 2023; Fitrianingsih & Asfaro, 2022).

2.1.2 Return on Equity (ROE)

ROE is typically defined as **net income divided by total equity**, capturing the return generated for shareholders on their invested capital (Bui & Krajcsák, 2023; Fitrianingsih & Asfaro, 2022; Yulianti et al., 2025). ROE is widely used as a profitability ratio and as a

financial performance indicator in corporate governance, ESG and bank performance studies (Bui & Krajcsák, 2023; Sandberg et al., 2022; Dongol & Shrestha, 2024; Sulbahri et al., 2022).

2.1.3 Operating Profit and Profit Margins

Operating profit margin (OPM) or operating margin measures **operating profit relative to sales**, indicating the profit from core operations before interest and tax (Khresat & Jassar, 2025; Yulianti et al., 2025). Operating profit margin and net profit margin are standard profitability ratios used alongside ROA and ROE to evaluate financial performance and operating efficiency. (Fitrianingsih & Asfaro, 2022; Yulianti et al., 2025; Khresat & Jassar, 2025).

2.2 Board Structure

Recent work supports board structure as a central governance mechanism, but findings are mixed across contexts (Boshnak, 2021; Puni & Anlesinya, 2020; Almoneef & Samontaray, 2019).

2.2.1 Board Expertise

Board expertise refers to the substantial skills, knowledge, and experience acquired by board members through education, training, and participation in corporate governance activities. Expertise is not limited to formal qualifications but can also result from long-term practical experience. Board financial expertise is often positively associated with performance, though COVID-19 weakened some of these benefits (Tarighi et al., 2023). Misalignment between board expertise and a firm's future risks harms performance but strategic reconfiguration of expertise improves it (Schnatterly et al., 2021).

2.2.2 Board Ownership

Across many countries, board and managerial ownership, especially in concentrated hands, often improve firm performance by strengthening monitoring and aligning incentives, but this is not universal. In some contexts, higher insider ownership or dominant blockholders can entrench managers or controlling shareholders and harm minority investors. The performance impact of board ownership therefore depends not just on how much equity directors hold, but also on ownership type, legal protections, and how board structures are designed. In several emerging markets, managerial or director ownership also tends to improve performance, again via better alignment and monitoring (Boshnak, 2023).

2.3 Review of Empirical Studies

Within the realm of corporate boards, board expertise pertains to the attainment of substantial skills and knowledge by board members through formal education, training, and extended engagement in board matters. Board expertise refers to the substantial skills, knowledge, and experience acquired by board members through education, training, and participation in corporate governance activities. Expertise is not limited to formal qualifications but can also result from long-term practical experience. Board financial expertise is often positively associated with performance (Tarighi et al., 2023). The board expertise must align with a firm's future risks to enhance performance (Schnatterly et al., 2021).

Board ownership remains central, with more nuanced patterns: board ownership frequently shows a positive association with performance in emerging markets such as Saudi Arabia, Jordan, Shariah-compliant Malaysia, Pakistan, Turkey (Boshnak, 2021; Ciftci et al., 2019). However, institutional ownership can be negatively related to ROA and ROE in some contexts, and insider-owners who are also directors may reduce performance. Some evidence

shows ownership structure and composition do not always affect performance, indicating that monitoring from concentrated owners is not universally beneficial. These results refine earlier definitions of ownership concentration and identity by showing that who holds concentrated stakes and how they interact with boards and managers critically shapes performance effects.

2.4 Theoretical Framework

2.4.1 Agency Theory

The agency theory is a well-recognised conceptual framework in the field of corporate governance that delineates the dynamics of the relationship between management and shareholders. Agency theory emerged from the economic analysis put up by Alchian and Demsetz (1972) in a seminar paper, and further elaborated on by Jensen and Meckling in 1976. Agency theory refers to the contractual relationship between the agent (manager) and the principal (shareholder), in which shareholders delegate responsibilities to the management for managing their economic business organisation. Agency theory explains the relationship between shareholders (principals) and managers (agents), where shareholders delegate decision-making responsibilities to managers to operate the firm on their behalf. The theory argues that managers may pursue personal interests rather than shareholders' wealth maximisation, thereby creating agency problems and agency costs. These costs arise from monitoring managers, bonding arrangements, and losses resulting from decisions that do not fully align with shareholders' interests. Corporate governance mechanisms, particularly the board of directors, are therefore necessary to monitor management, reduce conflicts of interest, and improve firm performance. Agency theory further suggests that larger and more independent boards enhance monitoring effectiveness, improve decision-making, and reduce managerial dominance, while board ownership aligns managers' interests with those of shareholders. The theory also highlights the role of accounting systems and performance-based compensation in reducing agency conflicts. Complementing this perspective, resource dependence theory posits that board members provide valuable resources, expertise, information, and external linkages that reduce uncertainty and improve organisational performance. Together, these theories provide the foundation for examining how board structure influences corporate performance.

3. Methodology

This study adopted an ex-post facto research design because the variables under investigation already existed and could not be manipulated by the researcher. The population of the study comprised twenty (20) consumer goods companies listed on the Nigerian Exchange Group (NGX) as of December 31, 2021. However, the sample size consisted of ten (10) actively listed consumer goods firms selected based on the availability of complete data from 2013–2022 and uniform accounting year-end of December 31st to ensure consistency and comparability of financial reports. The study relied on secondary data obtained from the published annual reports and accounts of the sampled companies. The variables examined included board expertise (BEXP), board ownership (BOWN), firm size (FSZE), and firm leverage (FLEV), while financial performance was measured using Return on Assets (ROA), Return on Equity (ROE), and Operating Profit (OPRFT). To analyse the data, the study employed descriptive statistics, Pearson correlation analysis, and multivariate regression techniques using STATA version 14. Descriptive statistics were used to summarise the characteristics of the variables, while Pearson correlation examined the strength and direction of relationships among variables. Multivariate regression analysis was adopted to determine the effect of board structure variables on firm performance. Before estimating the regression models, several diagnostic tests were conducted to ensure the validity of the regression

assumptions. These included tests for normality, multicollinearity, heteroscedasticity, and autocorrelation. Multicollinearity was assessed using Variance Inflation Factor (VIF) and tolerance values, while heteroscedasticity was examined through graphical methods and the Breusch-Pagan/Cook-Weisberg test. Autocorrelation was tested using approaches such as the Durbin-Watson statistic and the Wooldridge test for serial correlation in panel data models.

4. Results

In this section, the data analysis results and the conclusions pertaining to the formulated hypotheses derived from the defined model of the study were provided.

4.1 Descriptive Statistics

Presented in this subsection are the descriptive statistics results for the dataset used in this work. The outcome of the statistical analysis is displayed in Table 1.

Table 1: Descriptive Statistics of the Study Variables

Variable	Obs	Mean	Std. dev	Min	Max	Skewness	Kurtosis
ROA	100	0.050	0.022	-0.235	4.027	-0.188	0.226
ROE	100	0.087	0.097	0.001	0.411	1.505	4.390
OPRFT	100	0.106	0.100	-0.072	0.401	0.897	3.545
BEXP	100	0.305	0.120	0.125	0.667	1.136	4.313
BOWN	100	0.168	0.186	0.000	0.656	1.075	3.103
FSZE	100	18.660	2.411	15.870	22.813	0.405	1.495
FLEV	100	0.606	0.263	0.055	1.453	0.281	3.396

Note: ROA=Return on Assets; ROE=Return on Equity; OPRFT=Operating Profit; BEXP=Board expertise; BOWN; Board Ownership; FSZE=Firm Size; FLEV=Firm Leverage.

Source: Researcher's Analysis (2023)

The descriptive statistics in Table 1 show that all study variables have 100 observations, indicating a balanced dataset for the period under review. The average values of firm performance indicators ROA (0.050), ROE (0.087), and operating profit (0.106) suggest generally modest profitability among the sampled firms, although the relatively high standard deviations, particularly for ROE (0.097) and OPRFT (0.100), indicate variation in performance across firms. ROA has a negative minimum value (-0.235), implying that some firms experienced losses during the period. Board expertise (mean = 0.305) and board ownership (mean = 0.168) indicate moderate levels of governance characteristics among firms, while firm size (mean = 18.660) suggests relatively large firms on average. Firm leverage (mean = 0.606) shows that the firms are moderately highly leveraged. The skewness and kurtosis values indicate that most variables are positively skewed, especially ROE, OPRFT, BEXP, and BOWN, suggesting a concentration of lower values with a few higher outliers. Kurtosis values above or below the normal benchmark (around 3) also indicate that several variables deviate from normal distribution, implying that the dataset is not perfectly normally distributed but remains suitable for regression analysis.

4.2 Correlation Analysis

This part presents and tests the correlation among the variables of the study. Given that three models were formulated, the correlation result is provided in conjunction with each of the study models. Table 2 to Table 4 display the correlation findings for the models of Return on Assets (ROA), Return on Equity (ROE), and Operating Profit (OPRFT).

Table 2: Correlation Matrix for ROA Model

Variables	ROA	BEXP	BOWN	FSZE	FLEV
ROA	1				

BEXP	0.116	1			
BOWN	-0.044	0.110	1		
FSZE	0.020	0.194*	0.099	1	
FLEV	-0.087	-0.116	-0.113	0.397***	1

Note: ***, **, * indicate statistically significance at 1%, 5% and 10%, respectively. ROA=Return on Assets, BEXP=Board expertise, BOWN=Board Ownership, FSZE=Firm Size, FLEV=Firm Leverage”

Source: Researcher’s Analysis (2023)

Table 2 presents the correlation matrix for the ROA model. The result shows that board expertise (BEXP) has a weak positive relationship with ROA (0.116), while board ownership (BOWN) and firm leverage (FLEV) have weak negative relationships with ROA at -0.044 and -0.087 respectively. Firm size (FSZE) has a very weak positive relationship with ROA (0.020). Additionally, FSZE is positively and significantly related to BEXP (0.194*) and FLEV (0.397***). The low correlation coefficients among the explanatory variables indicate the absence of serious multicollinearity problems in the model.

Table 3: Correlation Matrix for ROE Model

Variables	ROE	BEXP	BOWN	FSZE	FLEV
ROE	1				
BEXP	-0.058	1			
BOWN	-0.271**	0.110	1		
FSZE	0.507***	0.194*	0.099	1	
FLEV	-0.054*	-0.116	-0.113	0.397***	1

Note: ***, **, * indicate statistically significance at 1%, 5% and 10%, respectively. “ROE=Return on Equity, BEXP=Board expertise, BOWN=Board Ownership, FSZE=Firm Size, FLEV=Firm” Leverage

Source: Researcher’s Analysis (2023)

Table 3 shows the correlation matrix for the ROE model. ROE has a weak negative relationship with BEXP (-0.058) and FLEV (-0.054), while BOWN has a moderate negative and significant relationship with ROE (-0.271**). FSZE exhibits a strong positive and significant relationship with ROE (0.507***), indicating that larger firms tend to generate higher returns on equity. Among the independent variables, the correlations are generally low, suggesting the absence of serious multicollinearity problems in the model.

Table 4: Correlation Matrix for OPRFT Model

Variables	OPRFT	BEXP	BOWN	FSZE	FLEV
OPRFT	1				
BEXP	0.002	1			
BOWN	-0.275**	0.110	1		
FSZE	-0.465***	0.194*	0.099	1	
FLEV	-0.244**	-0.116	-0.113	0.397***	1

Note: ***, **, * indicate statistically significance at 1%, 5% and 10%, respectively. “OPRFT=Operating profit, BSZE=Board Size, BIND=Board independence, BMET=Board meeting, BEXP=Board expertise, BOWN=Board Ownership, FSZE=Firm Size, FLEV=Firm” Leverage

Source: Researcher’s Analysis (2023)

Table 4 shows the correlation among the variables in the OPRFT model. Operating profit (OPRFT) has a weak positive relationship with board expertise (BEXP) ($r = 0.002$), but negative and significant relationships with board ownership (BOWN) ($r = -0.275$), firm size (FSZE) ($r = -0.465$), and firm leverage (FLEV) ($r = -0.244$). Firm size is positively and significantly related to leverage ($r = 0.397$). The low to moderate correlation coefficients indicates absence of serious multicollinearity among the explanatory variables in the model.

4.3 Detection of Multicollinearity

The Variance Inflation Factor (VIF) and Tolerance were adopted to check for multicollinearity problem in the dataset used for this study. Table 5 presents the results

Table 5: *Multicollinearity Test based on VIF and Tolerance values*

Variables	VIF	Tolerance (1/VIF)
BEXP	1.52	0.658
BOWN	1.32	0.760
FLEV	1.31	0.764
Mean VIF	1.45	

Source: Researcher's Analysis (2023)

Table 5 shows clearly that multicollinearity is not present in this study since the variance inflation factor (VIF) values fall between 1.31 and 1.52, rationally lower than the threshold of 10 (Hair et al., 2014; Pallant, 2005). On the other hand, the tolerance values range between 0.658 and 0.764, considerably greater than the threshold of 0.1. Consequently, multicollinearity does not exist in this study.

4.4. Heteroskedasticity Test

Multivariate analysis assumed that the residuals in a regression model are homoscedasticity, meaning that the variance of error terms remains constant or is evenly distributed across a set of independent variables (Hair et al., 2014). Heteroscedasticity arises when the variance of the error terms exhibits a modulating or increasing trend. This can be attributed to the non-normalization of a specific variable, transformation error, or higher measurement error of some independent variables (Tabachnick & Fidell, 2007).

To identify heteroscedasticity, one can implement a graphical method. This involves plotting the residuals of the model against the predicted values of dependent variables and each predictor variable. The purpose is to determine if the error components of the model exhibit consistent variation. In contrast, heteroscedasticity can be identified by the Breusch Pagan/Cook Weisberg test, which provides the chi-square value and its proportion at a significance level of 5%. Therefore, in this investigation, the Breusch-Pagan/Cook Weisberg test was used to discern the existence of heteroscedasticity. The outcome of this test is shown in Table 6.

Table 6: *Breusch Pagan/Cook Weisberg Test*

Models	Chi2 (1)	Proba > Chi2	Null (Ho)
ROA	3.54	0.0592	Accepted
ROE	9.80	0.0021	Rejected
OPRFT	4.93	0.0415	Rejected

Note: Ho (null): Homoscedasticity

Source: Researcher's Analysis (2023)

The results of Table 6 show that the model for return on asset (ROA) does not provide evidence to reject the null hypothesis of homoscedasticity. This implies that there is no existence of heteroscedasticity, since the p value is 0.0592 (5.92%), which exceeds the threshold of 0.05 (5%). Conversely, the p-values for return on equity (ROE) and operating profit (OPRFT) are statistically significant at the 0.05 level. Consequently, the models invalidated the null hypothesis of homoscedasticity due to the presence of heteroscedasticity. Furthermore, the result indicates that the variances of their error terms are extensively dispersed, which requires correction. Thus, to address the issue of

heteroscedasticity in return on equity (ROE) and operating profit (OPRFT) models, the PCSEs are proposed by Bailey and Katz (2011), Beck and Katz (1995), and Reed and Ye (2011).

4.5 Hypotheses Testing

The hypotheses of this study were tested using Random Effect Regression for the ROA model and PCSEs regression for the operational profit (OPRFT) and return on assets (ROA) models. The application of random effect (RE) regression was determined using the Breusch-Pagan likelihood limit test for RE models compared to pooled ordinary least squares (OLS) model, and the Hausman specification test for RE compared to fixed effect (FE) model. The results of these tests support the usage of the random effect model. The use of PCSEs regression in the context of heteroscedasticity is linked to the ROE and OPRFT estimation models. The following subtitles provide explanations for the results of each regression type for the three models (ROA, ROE and OPRFT) reported in this paper.

4.5.1 The Effect of Board Structure on Firm Performance: ROA Model

This study employed the random effect model to investigate the influence of board size on the financial performance, specifically measured by ROA, of consumer goods companies listed in Nigeria. The random effect regression model's outcome is displayed in Table 7.

Table 7: Result of Random Effect Regression Model for ROA

Variable	Coef.	t	p>t
Constant	1.3501	4.13	0.000***
<i>Independent:</i>			
BEXP	0.4733	1.76	0.082*
BOWN	-0.4804	-3.33	0.000***
<i>Control:</i>			
FSIZE	0.0481	3.92	0.000***
FLEV	0.3074	2.65	0.008***
Observations		100	
No. of groups		10	
Wald chi2(7)		53.37	
Prob> chi2		0.000***	
R ²		0.4751	

Note: ***, **, * indicate statistically significance at 1%, 5% and 10%, respectively. BEXP=Board expertise, BOWN= Board Ownership, FSIZE=Firm Size, FLEV=Firm Leverage"

Source: Researcher's Analysis (2023)

The Random Effect regression result shows that board expertise (BEXP) has a positive and marginally significant effect on ROA ($\beta = 0.4733$, $p < 0.10$), implying that increased board expertise improves firm profitability. Board ownership (BOWN) has a negative and statistically significant effect on ROA ($\beta = -0.4804$, $p < 0.01$), indicating that higher board ownership reduces profitability. Firm size (FSIZE) and firm leverage (FLEV) both exert positive and significant effects on ROA at 1% significance level. The model is statistically significant overall (Wald chi2 = 53.37, $p < 0.01$) and explains about 47.5% of variations in ROA.

4.5.2 The effect of Board Structure on Firm Performance: Return on Equity Model

A PCSEs regression is used to analyse the influence of board structure (board size, board independence, board meeting, board expertise, and board ownership) on the financial

performance (ROE) of consumer goods companies listed in Nigeria. In order to address the issue of heteroscedasticity in the ROE model, the PCSEs regression method, as proposed by Bailey and Katz (2011) and Reed and Ye (2011), was employed. Presented in Table 8 are the results of PCSEs regressions for the ROE model.

Table 8: Result of PCSEs Regression for ROE Model

Variable	Coef.	t	p>t
Constant	0.6295	7.49	0.000***
<i>Independent:</i>			
BEXP	-0.0279	-0.41	0.682
BOWN	-0.0659	-1.34	0.181
<i>Control:</i>			
FSIZE	-0.0188	-3.84	0.000***
FLEV	-0.0193	-0.88	0.377
Observations		100	
No. of Groups		10	
Av. Obs per group		10	
Wald chi2(7)		60.43	
Prob> chi2		0.000***	
R ²		0.4253	

Note: ***, **, * indicate statistically significance at 1%, 5% and 10%, respectively. BEXP=Board expertise, BOWN= Board Ownership, FSIZE=Firm Size, FLEV=Firm Leverage”

Source: Researcher’s Analysis (2023)

The PCSE regression result for the ROE model shows that the overall model is statistically significant (Wald chi2 = 60.43, $p < 0.01$) with an explanatory power of 42.53% ($R^2 = 0.4253$). Board expertise (BEXP) and board ownership (BOWN) have negative but insignificant effects on return on equity, as their p-values exceed 0.05. Among the control variables, firm size (FSIZE) has a significant negative effect on ROE ($p < 0.01$), indicating that larger firms tend to record lower returns on equity. However, firm leverage (FLEV) has a negative but insignificant relationship with ROE.

5. Conclusion and Recommendations

5.1

Summary

The main conclusions derived from the results of the three regression models in this work are as follows:

The findings revealed that board expertise and board ownership have negative but statistically insignificant effects on return on equity (ROE), indicating that they do not significantly influence the financial performance of the sampled firms. The study further found that firm size has a significant negative effect on ROE, suggesting that larger firms tend to experience lower profitability in terms of shareholders’ returns. In addition, firm leverage was found to have a negative but insignificant relationship with ROE. Overall, the regression model was statistically significant and explained about 42.53% of the variations in ROE.

5.2

Conclusion

The objective of this study was to investigate the influence of board structure (including board expertise, and board ownership) on the financial performance (ROA, ROE, and OPRFT) of consumer goods companies listed in Nigeria from 2013 to 2022. Based on the obtained results, the study draws the conclusion that: There is a positive but statistically negligible effect of board size on Financial Performance, as assessed by Return on Asset

(ROA). It exerts a substantial adverse influence on the financial performance (return on equity) of consumer products companies listed in Nigeria, although with a negligible beneficial effect on financial performance (operating profit). However, this discovery defies agency theory, which assumes that the size of the board of directors enhances the financial success of companies.

5.3

Recommendations

The present study has formulated the subsequent recommendations.

The management of consumer products businesses listed in Nigeria should prioritise board ownership and guarantee that the topics addressed at the meetings are exclusively aimed at achieving the set goals of the organisations.

It is recommended that consumer goods businesses raise the shareholding percentages of its directors in order to synchronise their interests with those of the company. This alignment would enable them to prioritise the overall interest of the company over their own, thereby improving financial performance.

References

- Alchian, A. & Demsetz, H. (1972) Production, information, costs and economic organization. *American Economic Review*, 62, 777-795.
- Al-Manaseer, M. F. A., Al-Hindawi, R. M., Al-Dahiyat, M. A., & Sartawi, I. I. (2012). The impact of corporate governance on the performance of Jordanian banks. *European Journal of Scientific Research*, 67(3), 349-359.
- Almoneef, A., & Samontaray, D. (2019). Corporate governance and firm performance in the Saudi banking industry. *Banks and Bank Systems*. [https://doi.org/10.21511/bbs.14\(1\).2019.13](https://doi.org/10.21511/bbs.14(1).2019.13)
- Alodat, A., Salleh, Z., Hashim, H., & Sulong, F. (2021). Corporate governance and firm performance: empirical evidence from Jordan. *Journal of Financial Reporting and Accounting*. <https://doi.org/10.1108/jfra-12-2020-0361>
- Bailey, D. & Katz, J. N. (2011). Implementing panel corrected standard errors in R: The PCSE Package. *Journal of Statistical Software*, 42(CS1), 1-11.
- Beck, N. & Katz, J. N. (1995). What to do (and not to do) with time-series cross-section data. *American Political Science Review*, 89(3), 634-647.
- Boshnak, H. (2021). Corporate Governance Mechanisms and Firm Performance in Saudi Arabia. *International Journal of Financial Research*. <https://doi.org/10.5430/ijfr.v12n3p446>
- Bui, H., & Krajcsák, Z. (2023). The impacts of corporate governance on firms' performance: from theories and approaches to empirical findings. *Journal of Financial Regulation and Compliance*. <https://doi.org/10.1108/jfrc-01-2023-0012>
- Ciftci, I., Tatoğlu, E., Wood, G., Demirbağ, M., & Zaim, S. (2019). Corporate governance and firm performance in emerging markets: Evidence from Turkey. *International Business Review*. <https://doi.org/10.1016/j.ibusrev.2018.08.004>
- Coleman, M., & Wu, M. (2020). Corporate governance mechanisms and corporate performance of firms in Nigeria and Ghana. *International Journal of Productivity and Performance Management*. <https://doi.org/10.1108/ijppm-01-2020-0020>
- Danoshana, S., & Ravivathani, T. (2019). The impact of the corporate governance on firm performance: A study on financial institutions in Sri Lanka. *SAARJ Journal on Banking & Insurance Research*. <https://doi.org/10.5958/2319-1422.2019.00004.3>
- Dongol, P., & Shrestha, S. K. (2024). Exploring the role of corporate governance in driving financial performance: An empirical investigation of Nepalese commercial banks. *Investment Management and Financial Innovations*. [https://doi.org/10.21511/imfi.21\(1\).2024.28](https://doi.org/10.21511/imfi.21(1).2024.28)
- Farooq, M., Noor, A., & Ali, S. (2021). Corporate governance and firm performance: empirical evidence from Pakistan. *Corporate Governance: The International Journal of Business in Society*. <https://doi.org/10.1108/cg-07-2020-0286>

- Fitrianingsih, D., & Asfaro, S. (2022). Pengaruh good corporate governance terhadap kinerja keuangan perusahaan perbankan di bursa efek Indonesia. *Jurnal Revenue: Jurnal Ilmiah Akuntansi*. <https://doi.org/10.46306/rev.v3i1.37>
- Gabriel, A., & Ibikunle, G. (2019). An Analysis of Corporate Governance Impact on Corporation Management in Nigeria. *International Journal of Innovative Research and Development*. <https://doi.org/10.24940/ijird/2019/v8/i5/may19071>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data Analysis* (7th. Ed.). UK: Pearson International edition.
- Ibrahim, M. (2015). Investigating the use of the four perspectives of balanced scored card (BSC) as technique for assessing performance by Nigerian banks, *Journal of Accounting and Taxation*, 7(4), 62-70.
- Khresat, O., & Jassar, M. A. (2025). Operating Profit Margin, Financial Leverage, and Return on Invested Capital's Effects on the Profitability of Firm in Jordan's Industrial Sector. *Academic Journal of Interdisciplinary Studies*. <https://doi.org/10.36941/ajis-2025-0025>
- Kusumadewi, H., Saputri, E. R., & Yuniarto, A. E. (2023). Solvency, Profitability, and Financial Performance. *Telaah Bisnis*. <https://doi.org/10.35917/tb.v24i1.376>
- Kyere, M., & Ausloos, M. (2020). Corporate governance and financial performance in the United Kingdom. *arXiv: General Finance*. <https://doi.org/10.1002/ijfe.1883>
- Mrabure, K., & Abhulimhen-Iyoha, A. (2020). Corporate Governance and Protection of Stakeholders Rights and Interests. *Beijing Law Review*. <https://doi.org/10.4236/blr.2020.111020>
- P., & R. (2025). Impact of ESG Disclosures on Corporate Financial Performance: An Industry-Specific Analysis of Indian Firms. *Business Strategy & Development*. <https://doi.org/10.1002/bsd2.70055>
- Petra, S. T. (2007). Effect of corporate governance on the informativeness spearnings. *Journal of Economics of Governance* 8(2), 127-152.
- Puni, A., & Anlesinya, A. (2020). Corporate governance mechanisms and firm performance in a developing country. *International Journal of Law and Management*. <https://doi.org/10.1108/ijlma-03-2019-0076>
- Reed, W. R. & Ye, H. (2011). Which panel data Estimator should I use? *Applied Economics*, 43(1) 985-1000.
- Sandberg, H., Alnoor, A., & Tiberius, V. (2022). Environmental, social, and governance ratings and financial performance: Evidence from the European food industry. *Business Strategy and the Environment*. <https://doi.org/10.1002/bse.3259>
- Schnatterly, K., Calvano, F., Berns, J. P., & Deng, C. (2021). The effects of board expertise-risk misalignment and subsequent strategic board reconfiguration on firm performance. *Strategic Management Journal*. <https://doi.org/10.1002/smj.3291>
- Shenurti, E., Erawati, D., & Kholifah, S. N. (2022). Analisis Return on Asset (ROA), Return on Equity (ROE) dan Corporate Social Responsibility (CSR) yang mempengaruhi Nilai Perusahaan pada Perusahaan Manufaktur. *Jurnal Akuntansi dan Manajemen*. <https://doi.org/10.36406/jam.v19i01.539>
- Sulbahri, R. A., S., Fuadah, L., & Sidiq, S. (2022). Effect of Sustainable Report (CSR) on Return on Asset (ROA), Return on Equity (ROE) and Good Corporate Governance (GCG) (Empirical Study on Banking Companies for the 2016-2019 Period). *Proceedings of the 7th Sriwijaya Economics, Accounting, and Business Conference (SEABC 2021)*. <https://doi.org/10.2991/aebmr.k.220304.005>
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (6th ed.). New Jersey: Person Education Inc.
- Tarighi, H., Hosseiny, Z., Akbari, M., & Mohammadhosseini, E. (2023). The Moderating Effect of the COVID-19 Pandemic on the Relation between Corporate Governance and Firm Performance. *Journal of Risk and Financial Management*. <https://doi.org/10.3390/jrfm16070306>
- Topal, Y., & Dogan, M. (2014). Impact of board size on financial performance: The Case of BIST manufacturing industry. *International Journal of Business Management and Economic Research (IJBMER)*, 5(4), 74-79.
- Wang, Y., Abbasi, K., Babajide, B., & Yekini, K. (2019). Corporate governance mechanisms and firm performance: evidence from the emerging market following the revised CG code. *Corporate*

Governance: The International Journal of Business in Society. <https://doi.org/10.1108/cg-07-2018-0244>

Yulianti, N., Sutarsa, M., & Fitriani, R. L. (2025). Profitability Ratio Analysis To Measure Financial Performance (PT. Astra International Tbk 2020-2023). *Journal of Scientific Insights*. <https://doi.org/10.69930/jsi.v2i2.334>