BOARD INDEPENDENCE AND EARNINGS MANAGEMENT: MODERATING ROLE OF LEVERAGE IN NIGERIAN LISTED CONSUMER GOODS FIRMS

By

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ABSTRACT

The purpose of this study is to examine the effect of board independence on earnings management and the moderating role of leverage in Nigerian-listed consumer goods firms. Utilizing a longitudinal research design, data from 12 purposively selected firms, spanning from 2013 to 2022, were analyzed using cross-sectional time-series feasible generalized least squares (FGLS) regression. The findings reveal that board independence significantly reduces earnings management ($t = -2.31$, $p = .021$), and leverage further strengthens this relationship ($t = -3.57$, $p < .001$). The results imply that enhancing board independence and managing leverage effectively are crucial for mitigating earnings management practices. This underscores the importance of robust corporate governance structures in ensuring financial reporting integrity in emerging markets. In conclusion, the study highlights the significant roles of board independence and leverage in curbing earnings management. The study recommends that firms should advocate for policies that mandate a higher proportion of independent directors and ensuring their active engagement in oversight responsibilities. Additionally, implementing regulatory frameworks to manage leverage effectively through prudent debt-to-total assets ratios and periodic reviews of financial strategies is advised. These measures aim to enhance corporate governance and foster transparency and accountability in financial reporting within Nigerian consumer goods firms.

Keywords: *Board Independence, Earnings Management, Leverage, Interaction*

INTRODUCTION

Corporate governance is crucial for ensuring accountability, fairness, and transparency in a firm's agency and shareholder's relationship. A key element is board independence, involving non-executive directors who provide unbiased oversight and mitigate conflicts of interest between management and shareholders. In emerging markets like Nigeria, board independence is crucial due to weaker external disciplines and lax legal enforcement compared to developed markets (Usman & Yahaya, 2023).

Earnings management involves manipulating financial statements to meet specific targets, which can mislead investors and stakeholders. Independent boards are generally more effective in curbing earnings management due to their unbiased oversight and commitment to shareholders' interests (Susanto et al., 2017). However, the relationship between board independence and earnings management can vary by context. For instance, Khalil and

Ozkan (2016) found that in Egyptian companies, a higher ratio of non- executive members did not always reduce earnings management. Similarly, Rajeevan and Ajward (2020) observed that higher board independence in Sri Lankan companies led to lower earnings management, but they did not consider leverage as a moderating factor.

Leverage, the use of borrowed funds, can impact corporate governance and financial management. High leverage may increase earnings management to meet debt covenants (Aleqab & Ighnaim, 2021), but it can also serve as a disciplinary mechanism, reducing earnings manipulation through creditor oversight (Afifa et al., 2024). Understanding leverage's moderating effect on board independence and earnings management is crucial. This study focuses on Nigerian-listed consumer goods firms (CGFs), a key sector in the Nigerian economy with unique regulatory and corporate governance characteristics. Previous studies in Egypt (Khalil & Ozkan, 2016), Indonesia (Susanto et al., 2017), and Sri Lanka (Rajeevan & Ajward, 2020) show varied impacts of board independence on earnings management, often overlooking leverage and the specific context of Nigerian-listed CGFs.

The primary problem this study addresses is the inconsistency in findings regarding the effect of board independence on earnings management and the lack of consideration for leverage as a moderating factor. While some studies have found that board independence reduces earnings management (Rajeevan & Ajward, 2020; Aleqab & Ighnaim, 2021), others have found no significant relationship (Alquhaif et al., 2017). Moreover, the moderating role of leverage has been largely ignored in these studies. For instance, Usman and Yahaya (2023) confirmed that board independence significantly reduces earnings management in Nigerian listed companies but did not address the moderating effect of leverage.

Additionally, Okike et al. (2018) found that nationality moderates the relationship between board independence and earnings management in Nigerian initial public offerings (IPOs), suggesting that foreign-owned firms show a more pronounced negative correlation between board independence and earnings management. However, this study also did not consider leverage as a moderating factor.

This study aims to fill these gaps by examining the effect of board independence on earnings management in Nigerian-listed CGFs and exploring how leverage moderates this relationship. By doing so, it provides a more comprehensive understanding of the dynamics of corporate governance and financial reporting quality in Nigeria. Utilizing more recent data spanning from 2012 to 2022, the research guarantees the pertinence and suitability of its conclusions.

This study will provide scholars with updated empirical evidence on the relationship between board independence and earnings management, addressing the contextual gap specific to Nigerian consumer goods firms. For policymakers, the findings will offer actionable insights to enhance corporate governance frameworks and ensure effective oversight mechanisms tailored to local conditions. Practitioners will benefit from practical recommendations to improve board composition and mitigate earnings management, thereby fostering transparency and accountability in financial reporting.

Literature Review and Hypotheses Development

Earnings management involves the strategic manipulation of financial reports by company

management to meet specific objectives, such as hitting market forecasts, achieving performance benchmarks, or influencing stock Earnings management refers to the strategic manipulation of financial reports by management to achieve specific financial objectives. It involves actions taken by executives to influence reported earnings, either to meet market expectations, enhance stock prices, or secure bonuses. In the Nigerian context, earnings management is often scrutinized due to its potential impact on investor confidence and market stability (Olatunji, 2020). Earnings management is measured using metrics such as discretionary accruals or abnormal accruals, which capture deviations from normal accounting practices (Abdulsalam, 2021).

Board independence measures the degree to which a company's board of directors operates autonomously from management influence. Independent directors are crucial as they bring unbiased oversight, reduce agency conflicts, and enhance corporate governance effectiveness. In this study, board independence is typically assessed through the proportion of independent directors on the board (Adegbite et al., 2013).

The term "leverage" describes the proportion of debt a firm uses to finance its operations and investments. It shows how much a business finances its assets with borrowed money as opposed to equity. High leverage can amplify returns but also increase financial risk and vulnerability to economic downturns (Oyelere & Kposowa, 2019). Leverage is quantified using financial ratios like the debt-to-equity ratio or debt-to-total assets, which compares a company's total debt to its shareholders' equity or total assets.
The study benefits from Jensen and Meckling's (1976) agency theory, which provides a framework for understanding the dynamics between management and the board regarding earnings management. Agency theory posits that conflicts of interest arise between managers (agents) and shareholders (principals) due to the separation of ownership and control. In Nigerian publicly traded CGFs, managers may use earnings management to prioritize their interests over shareholders. Jensen and Meckling (1976) highlight corporate governance mechanisms, such as board diversity, independence, and size, in mitigating agency conflicts. Increased independence and larger boards are expected to enhance oversight and reduce earnings manipulation. Gender diversity on the board can also improve monitoring by incorporating diverse perspectives and experiences. Agency theory is used to underpin this study.

Khalil and Ozkan (2016) investigate the relationship between board independence and earnings management in Egyptian companies. They seek to understand if corporate governance policies, particularly board independence, influence earnings management in an emerging market with weak external discipline and lax legal enforcement. Their study indicates that a higher ratio of non-executive members, representing greater board independence, doesn't always correlate with lower earnings management. This finding suggests the unique context of Egyptian companies and may limit its generalizability to other developing economies like Nigeria. This study fills the knowledge gap and offers a comprehensive understanding of the influence of board independence on earnings management in Nigerian-listed consumer goods firms (CGFs).

Susanto et al. (2017) examined the connection between board independence and earnings management in Indonesian manufacturing companies. Using data from 290 firms between 2012 and 2014, their findings indicate that board independence negatively impacts the relationship between earnings management and free cash flow, suggesting that independent

boards mitigate managers' opportunistic behavior. However, changes in regulatory frameworks and corporate governance practices over time might affect the relevance of these findings. Therefore, this study in Nigeria considers more recent data to ensure applicability.

Rajeevan and Ajward (2020) explored the correlation between board independence and earnings management in Sri Lankan companies. The study on 70 firms listed on the Colombo Stock Exchange shows that higher board independence leads to lower earnings management. This supports the idea that independent directors enhance oversight and reduce managerial opportunism. Nonetheless, the study does not consider leverage as a moderating factor, which could influence the dynamics of corporate governance in different contexts. Addressing this gap is essential for understanding the contextual elements affecting corporate governance in Nigerian CGFs.

Aleqab and Ighnaim (2021) investigated the impact of board independence on earnings management in Jordanian non-financial companies. Analyzing data from 131 firms between 2015 and 2017, they found that increased board independence significantly reduces earnings management. This highlights the role of independent directors in curbing managerial manipulation of earnings. However, the study does not account for the moderating role of leverage, which is crucial for applying these findings to the Nigerian context.

Githaiga et al. (2022) studied the relationship between board independence and earnings management in East African Community (EAC) firms. Using data from 88 firms over ten years, they found that board independence significantly reduces earnings management.

This finding aligns with previous research and theoretical predictions. However, the study lacks consideration of leverage as a moderator, which may affect the relationship between earnings management and board independence in diverse contexts such as Nigeria. Incorporating this factor could provide a more nuanced understanding of corporate governance dynamics in Nigerian CGFs.

Usman and Yahaya (2023) examined the connection between board independence and earnings management in Nigerian listed companies. Analyzing data from 112 firms between 2012 and 2022, they found that board independence significantly reduces earnings management. This study fills a crucial knowledge gap by providing insights into the Nigerian context. However, it does not consider the moderating role of leverage, which could influence the relationship between board independence and earnings management.

Afifa et al. (2024) explored the relationship between board independence and earnings management in Jordanian service companies. Using data from 344 firm-year observations between 2012 and 2019, the study found that board independence negatively impacts earnings management. The study highlights the importance of independent directors in reducing managerial manipulation of earnings. However, changes in economic conditions over time may affect the relevance of these findings. Addressing this period gap is crucial for ensuring the applicability of the proposed study in Nigeria, which covers data from 2013 to 2022.

Alquhaif et al. (2017) investigated the impact of board independence on earnings management in Malaysian non-financial companies. Analyzing data from 120 firms between 2003 and 2012; they found no significant relationship between board independence and earnings management. This suggests that the presence of independent directors does not necessarily prevent earnings management. However, variations in corporate governance practices, cultural norms, and regulatory frameworks may limit the applicability of these findings to Nigerian CGFs. Addressing this population gap is essential for drawing relevant conclusions.

Goel and Kapoor (2022) examined the relationship between board characteristics and earnings management in Indian companies. The study found that board independence does not always ensure good corporate governance or limit earnings management. This emphasizes the need for additional measures to enhance the effectiveness of independent directors. The study, however, lacks specific recommendations for policymakers and practitioners to improve corporate governance practices. Addressing this practical gap is crucial for providing actionable insights for Nigerian CGFs.

In other development, Okike et al. (2018) investigated how nationality affected the relationship between earnings management and board independence. The study's finding indicates that nationality moderates this relationship. Nigerian initial public offerings

(IPOs) firms owned by foreigners show a more pronounced negative correlation between board independence and earnings management. Although it ignores leverage as a moderator, the analysis clarifies how nationality affects the relationship between board independence and earnings management in Nigerian IPOs. This study explores the interaction between board independence and earnings management, focusing on how leverage moderates this relationship within Nigerian-listed consumer goods firms.

On this note, the existing literature highlights the importance of board independence in reducing earnings management across various contexts. However, gaps remain in understanding the role of leverage as a moderator, particularly in Nigerian-listed consumer goods firms. Addressing these gaps will provide a more comprehensive understanding of the dynamics of corporate governance and financial reporting quality in Nigeria .Bases on the theoretical framework and the empirical review, this study hypothesize in null form that:

H1: Board independence of Nigerian-listed consumer goods firms has no significant effect on earnings management.

H2: Moderating role of Nigerian-listed consumer goods firms leverage has no significant effect on the relationship between board independence and earnings management

Methodology

This study adopts a longitudinal research design spanning the period from 2013 to 2022, focusing on annual reports sourced from 21 Nigerian-listed consumer goods firms. Utilizing a purposeful sampling technique, a subset of 12 firms is selected based on specific criteria relevant to the research objectives. The chosen sample is deemed representative of the broader population of consumer goods firms in Nigeria. Data extracted from these annual reports provide the foundation for analysis, employing statistical software STATA 13 to conduct rigorous quantitative analysis. This methodology allows for a comprehensive examination of the relationship between board independence and earnings management practices within the context of Nigerian consumer goods firms over a significant timeframe.

The model specification for this study adapts Dechow and Dichev (2002) model which allows to focus on an examination of the relationship between earnings management (EM), board independence (BI), leverage, and firm age, is structured as follows:

$NDA_{it}=30+3_1BI_{it}+ 3_2(BI_ALEV)_{it} + 3_3FAGE_{it+}\epsilon it$

Where: NDA_{it} = earnings management for firm i at time t‘ BI_{it} = board independence for firm iii at time t, $FAGE_{it}$ = firm age (control variable) for firm i at time t; $ALEV_{it}$ = leverage (moderator) for firm i at time t; 3_0, 3_1, 3_2, 3_3 = coefficients to be estimated; ϵ_{it} = error term.

Earnings Management (EM) serves as a dependent variable that refers to the variety of

tactics employed by management to falsify reported earnings figures; is measured using Non-Discretionary Accruals (NDA), as defined by Kothari et al. (2005). In addition, board Independence (BI) which serves as an independent variable refers to directors whose relationship with the company does not potentially interfere with their ability to make independent decisions; this is measured as the proportion of independent directors, as noted by Githaiga et al. (2022). Additionally, leverage (ALEV) defined as the amount borrowed to finance part of the assets is moderator; is measured as the total debt divided by total assets, according to Murni et al. (2023). Furthermore, firm Age (FAGE) which serves as one of the control variables is the firms' age from the date of incorporation; this is measured as the current year minus the year of incorporation, as specified by Siregar (2017).

Result Presentation and Discussion

Table 1: ***Descriptive Statistics***

Variable	Obs	Mean	Std. Dev.	Min	Max
nda	120	-.093	.04	-.23	-.01
bi	120	.732	.113	.5	.92
alev	120	.049	.075	0	.35
fage	120	52.667	21.586	8	99

Source: STATA Output 2024

Table 1 presents descriptive statistics for four variables: earnings management (nda), board independence (bi), leverage (alev), and firm age (fage), based on a sample of 120 observations. Earnings management (nda) has a mean of -0.093 with a standard deviation of 0.04, indicating that, on average, firms in the sample manage their earnings downwards. The minimum value of -0.23 and the maximum value of -0.01 suggest that all firms exhibit some level of earnings management, with a relatively narrow range of variation. In addition, board independence (bi) shows a mean of 0.732, meaning that, on average, 73.2% of board members are independent. The standard deviation of 0.113 reflects some variability among firms, with the proportion of independent directors ranging from 50% to 92%. This suggests that while most firms have a high level of board independence, there is still a notable difference in how firms compose their boards.

Leverage (alev) has a mean of 0.049 and a standard deviation of 0.075, indicating that firms in the sample generally have low leverage, with debt constituting about 4.9% of total assets on average. However, the range from 0 to 0.35 shows considerable variability, with some firms having no debt and others having leverage as high as 35%. Additionally, Firm age (fage) averages 52.667 years, with a standard deviation of 21.586 years, highlighting that the firms in the sample have been established for quite some time, with an average age of over half a century. The minimum age of 8 years and the maximum age of 99 years reveal a broad distribution, encompassing both relatively young and very old firms.

Table 2: ***Pairwise correlations***

Variables	(1)	(2)	(3)	(4)
(1) nda	1.000			
(2) bi	-0.223*	1.000		
(3) alev	-0.313*	-0.080	1.000	
(4) fage	0.132	-0.296*	-0.081	1.000
	(0.151)	(0.001)	(0.376)	

**** p<0.01, ** p<0.05, * p<0.1*

Source: STATA Output 2024

The pairwise correlations table shows the relationships between earnings management (nda), board independence (bi), leverage (alev), and firm age (fage). Earnings management (nda) has a significant negative correlation with board independence (bi) ($r = -0.223$, $p < 0.1$) and leverage (alev) ($r = -0.313$, $p < 0.01$), indicating that higher board independence and leverage are associated with lower levels of earnings management. Board independence (bi) is also negatively correlated with firm age (fage) ($r = -0.296$, $p < 0.01$), suggesting that older firms tend to have less independent boards. No significant correlation is observed between firm age (fage) and earnings management (nda).

Table 3: ***Robustness test***

	VIF	1/VIF
fage	1.103	.907
bi	1.096	.912
bi alev	1.006	.994
Mean VIF	1.068	.
Hettest	0.0044	
Hausman Test	0.3485	

Source: STATA Output 2024

The robustness test results indicate that multicollinearity is not a concern, as the Variance Inflation Factors (VIF) for firm age (fage), board independence (bi), and leverage (alev) are all close to 1, with a mean VIF of 1.068, well below the common threshold of 10. The heteroscedasticity test (Hettest) yields a value of 0.0044, suggesting the presence of heteroscedasticity in the model, and is addressed by utilizing robust regression. The Hausman Test result of 0.3485, being greater than 0.05, indicates that the random effects model is appropriate for this analysis, as there is no significant difference between the fixed and random effects estimations. To ensure that the panel data is homoskedastic and has no autocorrelation; general least squares is suitable for this study.

Table 4: ***Cross-sectional time-series FGLS regression***

nda	Coef.	St.Err.	value	tp- value	[95% Conf	Interval]	Sig
bi	-.072	.031	-2.31	.021	-.134	-.011	**
bi_alev	-.227	.064		-3.57	-.352	-.103	***
fage	0	0	0.54	.589	0	0	
Constant	-.037	.027	-1.37	.172	-.09	.016	
Number of obs		120	Chi-square			20.390	
Prob > chi2		0.0001					

****** *p<.01, ** p<.05, * p<.1*

Source: STATA Output 2024

The regression results show that board independence (bi) and the interaction between board independence and leverage (bi_alev) significantly affect earnings management (nda), with coefficients of -0.072 ($p < 0.05$) and -0.227 ($p < 0.01$), respectively. The Chi-square value of 20.390 with a p-value of 0.0001 indicates that the independent, moderating, and control variables collectively explain a considerable portion of the variation in the dependent variable, and the model has a good fit.

Based on the regression output, the findings reject H01, indicating that board independence significantly decreases earnings management in Nigerian-listed consumer goods firms ($t = -2.31$, $p = .021$). Furthermore, H02 is rejected as well, suggesting that leverage moderates the relationship between board independence and earnings management ($t = -3.57$, $p < .001$), highlighting a substantial influence of leverage in this context.

These results imply that enhancing board independence could mitigate earnings management practices in Nigerian consumer goods firms, especially when considering the moderating effect of leverage. This underscores the importance of robust corporate governance structures in managing financial reporting integrity in emerging markets.

Conclusion and Recommendations

In conclusion, the study supports the significance of both board independence and leverage in influencing earnings management practices within Nigerian consumer goods firms. Effective governance mechanisms and careful management of financial leverage are crucial for fostering transparency and reliability in financial reporting.

This study recommends that:

Firms should advocate for policies that promote greater board independence by mandating a higher proportion of independent directors and ensuring their active engagement in oversight responsibilities.

Additionally, providing guidelines for managing leverage effectively can be achieved through regulatory frameworks that encourage prudent debt-to-total assets ratios and periodic reviews of financial leverage strategies.

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