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MODERATING EFFECT OF AUDIT COMMITTEE INDEPENDENCE ON THE RELATIONSHIP BETWEEN BOARD INDEPENDENCE AND MEETING ON EARNINGS MANAGEMENT OF LISTED INDUSTRIAL GOODS FIRMS IN NIGERIA

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ABSTRACT

In recent years, corporate governance has become a key area of interest among academics, practitioners, and policymakers, particularly in emerging economies like Nigeria. Earnings management practices have been identified as a major concern in corporate governance, as they can undermine financial reporting quality and lead to negative outcomes for firms and investors. This study, therefore, examines the moderating effect of audit committee independence on the relationship between board independence and meetings on earnings management in listed industrial goods firms in Nigeria for the period of 2012 to 2021. The objective is to investigate whether the presence of an independent audit committee strengthens the impact of board independence and meetings on mitigating earnings management practices. This study used ex-post facto research design. The population consists of the thirteen listed industrial goods firms in Nigeria. A sample of ten firms was used based on availability of data. Secondary source of data collection was used, and the data were extracted from the annual reports and accounts of the firms. Panel regression technique was used, and Stata 17 was employed as the tool of data analysis. The findings revealed that audit committee independence strength the significant effect of board impendence on earnings management of listed industrial goods firms in Nigeria. While committee independence does not support the significant effect of board impendence on earnings management of listed industrial goods firms in Nigeria. The study recommended amongst others that Regulators and policymakers should establish and enforce stricter guidelines for audit committee independence. Board members should stride to attend Board Meetings regularly. Companies should be mandated to have a certain percentage of independent members on their audit committees, ensuring they possess the necessary qualifications, expertise, and independence from the company's management.

KEYWORDS: Board Independence, Board Meeting, Audit Committee Independence, Earnings Management.

INTRODUCTION

Financial reporting represents a means that allows managers to communicate firms' economic performance to stakeholders. It also provides a credible means that helps best-performing firms to distinguish themselves from poor-performing firms in the economy. However, managers may engage in earnings management practices to report earnings that do not accurately reflect their firms' underlying economic positions (Mark &Daniel 2022). Earning Management can also be called creative accounting, or big bath accounting procedure, or income smoothing, window dressing accounting system, or financial engineering. In fact, it is the use of accounting techniques to produce financial statements that present an overly positive view of a Company's business activities and financial position.

In recent years, there have been several accounting scandals in developed and developing economy, which have drawn public attention to the issue of managers' opportunistic utilization of earnings management. In Nigeria, there have been several cases of accounting scandals involving public companies, such as the case of Cadbury Nigeria Plc in 2006, which resulted in the resignation of the company's CEO and CFO following an investigation into allegations of financial misstatements. The scandals have led to increased scrutiny of financial reporting practices in Nigeria and the introduction of new regulations and standards aimed at promoting transparency and accountability. In addition, there is growing awareness of the importance of corporate governance mechanisms, such as board independence and audit committee independence, in preventing earnings management and ensuring the integrity of financial reporting (Jamaludin, et al 2015; Mark &Daniel,2022).Despite these efforts, earnings management remains a concern in Nigeria and other countries, and ongoing research continues to investigate the effectiveness of different corporate governance mechanisms in addressing this issue. The aim is to enhance the quality of financial reporting, reduce the potential for unethical behavior, and restore public trust in the accounting profession.

Although there are some studies (Ibrahim, et al 2015; Enofe, et al 2017) on earnings management by Nigerian companies, none have examined the moderating effect of audit committee independence on board independence and board meeting on earnings management of listed industrial goods firms in Nigeria. The current study seeks to fill this gap in the literature. Additionally, the study focuses specifically on listed industrial goods firms, which represent a key sector in the Nigerian economy.
For the purpose of this study, the following hypotheses were formulated in null form:

H_{01}: Audit committee independence does not significantly moderate the effect of board independence on earnings management of listed industrial goods firms in Nigeria.

H_{02}: Audit committee independence does not significantly moderate the effect of board meeting on earnings management of listed industrial goods firms in Nigeria.

LITERATURE REVIEW

Earnings Management

Earnings management, in accounting, is the act of intentionally influencing the process of financial reporting to obtain some private gain. It is a strategy used by the management of a company to deliberately manipulate the company's earnings so that the figures match a pre-determined target. This practice is carried out for income-smoothing. Thus, rather than having years of exceptionally good or bad earnings, companies will try to keep the figures relatively stable by adding and removing cash from reserve accounts (known colloquially as "cookie jar" accounts).The practice can take many forms, including manipulating accounting policies, misrepresenting financial statements, and engaging in fraudulent activities. Healy and Wahlen (1999) defined "earnings management as manners in which management or corporate decision makers use judgment in financial statement either to mislead the shareholders about the firm's performance or to influence contractual outcomes that depend on reported accounting numbers". Chen, et al (2015) viewed earnings management as choices made by corporate decision makers using accounting methods offered by laws and regulations to influence a firm's reported earnings.

Board Independence

Board independence is a state in which all or a majority of the members of a board of director do not have a relation with the company except as directors. It is refer to the extent to which the board of directors of a company is composed of individuals who are free from conflicts of interest and are not affiliated with the company's management or other stakeholders. Berghe and Baelden (2005) examined the issue of independence as an important factor in ensuring board effectiveness through the monitoring and strategic roles of the directors. The ultimate factor for the board independence is by acquiring enough numbers of the independent directors on board. They stated that the director's ability, willingness and board environment might lead to the independent attitude of each director. The idea is that non-executive directors are better able to provide objective oversight and governance of the company's operations and financial reporting. Scholarly views on board independence have largely focused on the relationship between board composition and firm performance, with mixed results. Some studies have found that board independence is positively associated with earnings management, while others have found no significant relationship or even a negative relationship. For example, research by Francis et al. (2005) found that companies with a higher proportion of independent directors on their board were less likely to engage in earnings management. Similarly, studies by Chen, et al (2021) found that board independence can help to mitigate the impact of CEO incentives on earnings management. One of the key mechanisms through which board independence can impact earnings management is through the ability of independent directors to provide effective oversight and monitoring of company performance. Independent directors can serve as a check on management's decision-making and ensure that financial reporting is transparent and accurate. In addition, they can help to ensure that corporate strategy is aligned with the interests of stakeholders and that any potential conflicts of interest are identified and addressed.

Board Meeting

Board meetings are critical in the corporate governance structure of firms as they provide a platform for the board of directors to deliberate on important matters and make informed decisions. Among the critical matters that are deliberated on in board meetings is the company's financial performance, which makes board meetings an essential factor in curbing earnings management practices in firms. Several studies have linked board meetings to the reduction of earnings management practices in firms. In a study conducted by Feng et al. (2020), the authors examined the relationship between board meetings and earnings management practices in Chinese firms. The study found that the frequency of board meetings was negatively related to earnings management practices. Specifically, firms with more frequent board meetings had lower levels of earnings management compared to firms with less frequent board meetings. Another study by Fan, et al (2019) noted that frequent board meetings provided an opportunity for the board of directors to engage with management and monitor their activities. Additionally, the study noted that frequent board meetings facilitated timely decision-making, which reduced the likelihood of management engaging in earnings management practices.

Moderating Effect of Audit Committee Independence

According to Bliss et al. (2011), audit committee independence is regarded as the most significant factor to ensure the overall effectiveness of an audit committee and lead to better monitoring of the company's financial reporting practices. However, audit committee independence was used as a moderator to affect the strength of the relationship between dependent and independent variables. However, audit committee plays a critical role in corporate governance as it is responsible for overseeing the financial reporting process and ensuring the integrity of financial statements. As such, the audit committee's independence is essential in promoting transparency and reducing the likelihood of earnings management practices in firms. Several studies have highlighted the importance of audit committee independence in moderating the relationship between board independence and earnings management practices. Fu et al. (2021) stated that a higher level of audit committee independence reduced the likelihood of board independence leading to earnings management practices. Another study by Enofe et al. (2020) said that audit committee independence promoted the effectiveness of the audit committee in monitoring financial reporting quality, which reduced the likelihood of earnings management practices.

Apart from the moderating effect of audit committee independence on the relationship between board independence and earnings management, scholars have also explored the impact of the interaction between audit committee independence and board independence on earnings management practices.Yang and Krishnan (2013) found that a high level of audit committee independence and board independence interacted to reduce the likelihood of earnings management practices. The authors noted that the interaction between audit committee independence and board independence promoted effective monitoring of financial reporting quality, which reduced the likelihood of earnings management practices.

Another study by Azim and Islam (2019) suggested that audit committee independence plays a critical role in enhancing the effectiveness of board meetings in monitoring and controlling earnings management practices. An independent audit committee can provide an additional layer of oversight and help ensure that board meetings are effective in identifying and addressing earnings management practices. Additionally, an independent audit committee can help ensure that management is held accountable for its financial reporting practices.

Empirical Review

Bala and Kumai (2015) assessed the relationship between board characteristics and earnings management. The study examines the influence of board characteristics and earnings management of listed food and beverages firms in Nigeria. The study covers the period of five years, from 2009 to 2014. Data for the study were extracted from the firms' annual reports and accounts. After running the ordinary least square (OLS) regression, a robustness test was conducted for validity of statistical inferences, the data was empirically tested. First, the dependent variable was generated using two steps regression in order to determine the discretionary accrual of listed food and beverages firms in Nigeria through modified Jones model of Dechow et al (1995). A multiple regression was employed to test the model of the study using Random Model. The results from the analysis revealed an inverse relationship between board size, board meetings and board financial expertise, and earnings management of listed food and beverages firms in Nigeria, while and board composition and women directorship are positively significantly related to income smoothing of listed food and beverages firms in Nigeria.

Kankan mage (2015) examined the impact of board characteristics on earnings management in Sri Lanka during the period from 2012-2015. The current study uses the ordinary least squares regression (OLS) to examine the effect of board on earnings management for a sample of 160 listed firms in Sri Lanka from 2012-2015. Kothari, et al (2005) performance adjusted discretionary accrual model used to measure the earnings management by using the discretionary accruals. Findings revealed that there is a significant relationship between board size, board composition, board financial expertise and board meetings and earnings management of the firms.

Lo et al (2017) conducted a study on board composition, audit committee structure, grey directors and the incidence of corporate failure in U.K and then, examined the relationship between board structure, audit committee structure and the incidences of corporate failure in England, the study made the following findings: that the greater grey directors on the board and the audit committee, the lower probability of corporate failure. Also, that independent outside directors on board and audit committee could not effectively contribute to decrease the likelihood of corporate failure. However, high percentage of independent outside directors on audit committee is even unfavorable to firm survival and failed firms are more likely to employ the inclusion of key directors (CEO, Chairman and Finance Director) on the audit committee.

Abubakar and Ishak (2017) examined the relationship between board attributes and real earnings management of listed Nigerian financial institutions. The residual from Roychowdhury (2006) is used to proxy real earnings management. Data were collected from 45 financial institutions quoted on the Nigerian Stock Exchange (NSE) from 2011 to 2016. For analysis purpose, the Panel

Corrected Standard Errors (PCSEs) regression was utilized. The regression result shows that board meeting and board expertise have a significant positive impact on real earnings management.

Onwuchekwa and Madumere (2019) investigated the association between board characteristics and earnings management practices. A longitudinal survey was used covering a time frame of six years (2007-2012). Historical data were extracted from the financial statements of eighty-eight sampled non-financial firms quoted on the Nigerian Stock Exchange. The statistical instrument used was the fixed effect Panel least Square regression. The study found that board independence and audit committee independence have negative relationship, while managerial shareholdings and board political connections have positive relationship with earnings management practices among Nigerian firms

Itopa and Alexander (2022) examined the effectiveness of Board of Directors in reducing earnings management activities in listed non-financial services sector in Nigeria. Earnings management is seen through discretionary accruals as suggested by Kothari et al. (2005). Board of directors is measured using six characteristics: board size, independence, meetings, CEO duality, audit committee, nomination and remuneration committee. These characteristics are tested using a sample of 75 non-financial services companies listed on the Nigerian Exchange Group. The study covers a period of 10 years (2012-2021). The hypotheses are tested using multiple regression analysis. The results show that some Board of Directors characteristics, such as independence, are negatively associated with earnings management at significant levels.

Vadasi and Polyzos (2023) investigated the association between corporate governance and earnings management. A sample of 103 firms listed on the Athens Stock Exchange during the period 2015-2019 was employed. Using panel data regressions, the authors explore the relationship between the discretionary accruals and five board characteristics as identified in the literature (independence, family directors, female directors, foreign directors, and CEO duality). The main findings of the study suggested that earnings management is restricted in firms with more independent directors and firms in whom the same person takes the role of the CEO and the chairman of the board.

Theoretical Framework

The framework of this study is based on agency theory. Jensen and Meckling (1976) developed the theory to describe the relationship between shareholders (principals) and managers (agents) in a corporation. According to the theory, the owners of a firm (principals) hire managers (agents) to run the business on their behalf. The managers are expected to act in the best interest of the owners and maximize the value of the firm. In the context of this study, agency theory is relevant as it explains the relationship between the owners of the listed industrial goods firms (principals) and the managers (agents) in charge of financial reporting. The potential for agency conflicts arises as managers may have incentives to engage in earnings management practices to meet their own targets, rather than those of the owners of the firm (DeZoort, & Salterio, 2021).

The study's framework assumes that board independence can reduce agency costs and reduce the potential for earnings management practices. Additionally, audit committee independence is expected to strengthen the relationship between board independence and earnings management practices (DeZoort & Salterio, 2021).

METHODOLOGY

This study used ex-post facto research design. Data were extracted from the financial statements of listed industrial goods firms in Nigeria. The population of this study comprises all the 13 listed industrial goods firms in Nigeria as at 31st December, 2021. For the purpose of this study, the whole population was intended to be considered as sample of the study, but some firms were dropped because of the criteria:

I. Firm must have all data needed for the variables of the study
II. Firm must not be suspended from trading on the floor of the Nigerian Stock Exchange within the period of the study (2012-2021).

As a result of the above criteria, 10 listed industrial goods firms made up the sample firms of the study. For analysis purposes, panel regression was employed through the use of STATA version 17.

Model Specification

The study's regression model is therefore:

$EM_{it} = \beta0 + \beta1BI_{it} + \beta2BM_{it} + \beta3BI*ACIND_{it} + \beta4BM*ACIND_{it} + \beta5FS_{it} + \mathcal{E}_{it}$

Where:

EM= Earnings Management

β0= Intercept

β1to β5 = coefficient of slop or regression coefficient

BS= Board Independence

BM= Board Meeting

BI*ACIND = Board independence interacting with audit committee independence

BM*ACIND = Board meeting interacting with audit committee independence

FS= Firm Size

ε = error term

it = i cross-sectional t time

Table 1: Variables Measurement

Variables	Measurement	Source
Earnings Management	The absolute values of discretionary accruals (residual obtained from Kothari et al., (2005), the performance Adjusted Current Discretionary Accrual	(Kothari et al., (2005)
Board Independence	Proportion of non-executive director in the firm during the accounting year	Itopa& Alexander. (2022).
Board Meeting	Number of Board Meetings held in a year.	Fan, et al 2019

BI*ACIND = Board meeting interacting with audit committee independence	The proportion of independent directors of the Audit Committee interacting with board independence.	Dakhlallh, et al (2021)
BM*ACIND = Board meeting interacting with audit committee independence	proportion of independent directors of the Audit Committee interacting with board meeting	Dakhlallh, et al (2021)
Firm size	Natural logarithms of total asset.	Hassan and Ahmed, (2012)

RESULT AND DISCUSSION

Table 2: Descriptive statistics

	Mean	Std. Dev.	Min	Max
DAC	.077018	.0615964	.0009	.3272
BI	.5108247	.1895389	.125	.8571429
BM	4.133333	.9966235	2	6
ACIND	.091048	.0885114	.1666666	.3636364
FS	6.607861	1.034	3.930745	8.983825

Source: Extracted from STATA output

The absolute value of discretionary accruals of the listed industrial goods firms in Nigeria (based on Kothari et al., (2005) performance Adjusted Current Discretionary Accrual) have a minimum value of .0009, (which is much closer to zero) and a maximum of .3272. This shows that the minimum percentage of discretionary accruals from the total accruals of the sampled firms is 0.09% (which is less than 1%). While during the period, some firms manage earnings to the extent of 33% of the total accruals. The magnitude of absolute value of discretionary accruals in the sample firms has a mean of .077018 with standard deviation of .0615964. This indicates that the deviation between companies is quite very small. The discretionary accrual values are above zero, which suggests the existence of earnings management in the listed industrial goods firms in Nigeria.

The mean value for board independence is 0.5108247, indicating that, on average, more than half of the board members in the companies included in the dataset are non-executive directors. This is generally considered a positive sign for good corporate governance practices as it suggests that the board can provide independent oversight and make objective decisions. The standard deviation of board independence is 0.1895389, which shows that there is considerable variation in board independence across companies. Some companies have a significantly higher proportion of non-executive directors than the average, while others have a significantly lower proportion. This can be an important factor to consider when evaluating a company's corporate governance practices, as it can have a significant impact on the company's performance and reputation. The minimum value for board independence in the dataset is 0.125, indicating that some companies have a very low proportion of non-executive directors on their boards. This can be a concern as it may indicate a lack of independent oversight and decision-making. On the other hand, the maximum value for board independence is 0.8571429, indicating that at least one company in the dataset has a board with a high proportion of non-executive directors. This suggests a strong emphasis on independent oversight and decision-making, which can be considered favorable from a corporate governance perspective.

The number of meetings held by the Board of Directors of listed industrial goods firms during the period has a mean of 4.133333 with standard deviation of .9966235 and the range is from the minimum of 2 to a maximum of 6 respectively. The mean number of meetings held by the Board of Directors is calculated to be 4.133333. This value indicates that, on average, the board of directors of the listed industrial goods firms in the dataset held approximately four meetings during the specified period. This average provides a measure of the board's regular engagement and communication, enabling them to address key strategic matters and oversee the company's operations effectively. The standard deviation of the number of meetings is 0.9966235. The minimum number of meetings held by the Board of Directors is 2, indicating that at least one firm in the dataset conducted a relatively low number of board meetings during the specified period. Conversely, the maximum number of meetings held by the Board of Directors is 6. This value indicates that at least one firm in the dataset had a higher frequency of board meetings during the specified period.

The mean value of audit committee independence is 0.1851852. This indicates that, on average, the audit committees of the companies in the dataset have a relatively low level of independence. A standard deviation of 0.1099155 indicates a moderate level of variability in audit committee independence among the companies. The minimum value of audit committee independence is 0, indicating that at least one company in the dataset has an audit committee that lacks independence. A value of 0 suggests that all or most of the audit committee members may have conflicts of interest or relationships that compromise their ability to provide independent oversight. The maximum value of audit committee independence is 0.5. This suggests that at least one company in the dataset has an audit committee that exhibits a higher level of independence. The control variable is firm size proxies by natural logarithms of total assets. It has a mean of 6.607861 with standard deviation of 1.034 and the range is from a minimum of 3.930745 to a maximum of 8.983825.

Table 3: Correlation matrix

	DAC	BI	BM	BMACIND	BMACIND	FS
DAC	1.0000					
BI	0.2770	1.0000				
BM	-0.0067	0.4118	1.0000			
BIACIND	-0.0106	-0.0514	0.2336	1.0000		
BMACIND	-0.0106	-0.0792	0.4095	0.2458	1.0000	
FS	0.0878	0.2458	0.4821	0.3573	-0.0514	1.0000

Source: Extracted from STATA output

From the table, the relationship between Board independence and Earnings Management of listed industrial goods firms in Nigeria is positive. This can be observed from the correlation coefficient of 0.2770 values. Moreover, the frequency of Board Meetings has a significant but weak negative association with Earnings Management of listed industrial goods firms in Nigeria. This is because; the correlation coefficient is -0.0067. Furthermore, the degree of association between board independence interacting with audit committee independence (BI*ACIND) and Earnings Management is -0.0106. Additionally, the firm size introduced as a control variable has a significant positive relationship with Earnings Management. This can be confirmed from the correlation coefficient of 0.0878. The mean VIF of 1.33 implies that multicollinearity is not a problem (see table 4.

Table 4: Multicollinearity test

	VIF	1/VIF
BI	1.21	0.827481
BM	1.48	0.675983
BI*ACIND	1.30	0.770956
BM*ACIND	1.26	0.792778
FS	1.31	0.764853
Mean Value	1.33	

Table 5: Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

chi2(1) = 0.92	Prob > chi2 = 0.330

The result obtained from the heteroscedasticity test for the models recoded an insignificant probability value of 0.330 which indicate that heteroscedasticity was absent.

Table 6: Hausman test and Breusch and Pagan Lagrangian multiplier test for random effects

chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B) = 7.74	Prob > chi2 = 0.1710
chibar2(01) = 0.09	Prob > chibar2 = .34001

The result of the Hausman test revealed that the value of chi2 is 7.74 and the prob>chi 0.1710. The insignificant value as reported by the probability of chi2 indicates that the hausman test is in favour random effect model. Further to this, the Breusch and Pagan Lagrangian multiplier test for random effect was conducted to choose between the random effect result and OLS regression. The result revealed that the chi2 value is 0.09 with prob>chi2 = .34001. The result indicated that the best model to be interpreted is the OLS regression model.

Table 7: Summary of Regression Results

	Coef.	Std. Err.	t	P>|t|
BI	-.0651158	.0258883	-2.52	0.012
BM	.1982682	.122346	1.62	0.105
BI*ACIND	-.2156222	.0894619	-2.41	0.016

BM*ACIND	-.0131596	.0149464	-0.88	0.379
FS	.0602489	.0778459	0.77	0.441
R-sq:0.3578				
F(5, 84) = 62.03				0.0025

Table 7 reveals the cumulative R-square (0.3578) which is the multiple coefficients of determination. This means that board independence board meeting, and interaction between audit committee independence jointly explained the systematic variations in earnings management practices among the listed industrial firms in Nigeria to the tune of 36%. Similarly, the result of the F- statistics value of 62.03 implies that the model is fit and is significant at 5% level of significance.

Based on the regression results presented in Table 7, the coefficient for board independence (-0.0651158) is negative. This indicates that as board independence increases, there is a tendency for lower levels of earnings management practices within the company. The negative coefficient suggests that a higher proportion of non-executive directors on the board is associated with reduced earnings management. Additionally, the interaction term between board independence (BI) and audit committee independence (ACIND) is included in the analysis. The coefficient for this interaction term (-0.2156222) is negative as well. This indicates that the joint effect of board independence and audit committee independence has a stronger negative association with earnings management practices than board independence alone. The significance level of 0.016 suggests that the negative relationship between the interaction term and earnings management practices is statistically significant. This implies that the combined effect of board independence and audit committee independence is more influential in curbing earnings management practices compared to either factor alone. This finding is consistent with that of is consistent with the principles of agency theory and aligns with the study conducted by Bala and Kumai (2015).The results indicate that the board's meetings, when considered without interaction with audit committee independence, have a positive coefficient of 0.1982682. This positive coefficient suggests that a higher frequency of board meetings is associated with increased earnings management practices. However, this coefficient is reported as insignificant at the 5% significance level, indicating that the relationship may not be statistically reliable. However, when the interaction between the board's meetings and audit committee independence is considered, the coefficient size becomes negative (-0.0131596). This negative coefficient suggests that the joint effect of board meetings and audit committee independence is associated with reduced earnings management practices. However, this coefficient is reported as insignificant at the 0.379 significance level, indicating that the relationship is not statistically reliable. It is important to note that the insignificance of these coefficients means that there is insufficient evidence to support a statistically significant relationship between the variables. In other words, the results do not provide strong evidence to suggest that the frequency of board meetings, either alone or in interaction with audit committee independence, has a substantial impact on earnings management practices. The finding that the frequency of board meetings, both alone and in interaction with audit committee independence, is not significantly associated with earnings management practices contradicts the findings reported by Itopa and Alexander (2022) and does not align with the predictions of agency theory. However, the results of the current study suggest that the frequency of board meetings, regardless of the presence of audit committee independence, does not have a significant impact on earnings management practices. This implies that the number of board meetings alone may not be a reliable indicator of the effectiveness of governance mechanisms in curbing earnings management.

The control variable-firm size has an insignificant positive impact on Earnings Management. The coefficient of .0602489 and the probability value of 0.441 suggest the positive impact.

CONCLUSION AND RECOMMENDATIONS

This study concludes as follows:

Having an independent audit committee alongside a board that consists of a higher proportion of non-executive directors, the company can benefit from a more robust system of checks and balances. The strengthening effect of audit committee independence on the relationship between board independence and earnings management practices implies that the presence of an independent audit committee enhances the effectiveness of the board's monitoring and control mechanisms. This finding suggests that companies with both independent boards and independent audit committees are more likely to engage in fewer earnings management practices.

However, based on the specific findings of this study, it appears that the joint effect of board meetings and audit committee independence is not significantly associated with reducing earnings management practices in listed industrial goods companies in Nigeria. This implies that solely increasing the frequency of board meetings may not effectively mitigate earnings management practices, even when an independent audit committee is in place.

Base on the findings and conclusion, the study proffers the following recommendations:

Regulators and policymakers should establish and enforce stricter guidelines for audit committee independence. Companies should be mandated to have a certain percentage of independent members on their audit committees, ensuring they possess the necessary qualifications, expertise, and independence from the company's management.

As regards board meetings, it is recommended that companies should meet all the requirements for effective board meetings. In view of this, a minimum of 4 board meetings must be held (quarterly) in a span of one year. It is imperative to give notice at least 7 days before the actual day of the meeting. A minimum number of 1/3rd of a total number of directors is expected to form a quorum. For transparency, meetings must always be conducted in the presence of a chairman of the board. It is also recommended that the agenda and minutes of meetings be well communicated to the members.

REFERENCES

Abubakar, I. A., & Ishak, R. B. (2017). The effect of board attributes on real earnings management in Nigerian financial institutions. Journal of Accounting, Business and Finance Research, 1(1), 76-83.

Azim, M. I., & Islam, M. A. (2019). Board independence, audit committee independence and earnings management in Bangladesh. Journal of Accounting in Emerging Economies, 9(2), 204-223.

Bala, H., & Kumai, G. B. (2015). Board characteristics and earnings management of listed food and beverages firms in Nigeria. European Journal of Accounting, Auditing and Finance Research, 3(8), 25-41.

Berghe, V. D & Baelden, T. (2005). The complex relation between director independence and board effectiveness, Corporate Governance, Vol. 5 No. 5, pp. 61-83

Bliss M. A., Gul F. A., Majid A. (2011). Do political connections affect the role of independent audit committee and CEO Duality? Some evidence from Malaysian audit pricing. Journal of Contemporary Accounting and Economics, 7, 82–98.

Chen, G., Luo, S., Tang, Y., & Tong, J. Y. (2015). Passing probation: Earnings management by interim CEOs and its effect on their promotion prospects. Academy of Management Journal, 58(5), 1389-1418.

Chen, Y., Cheng, C. A., Li, S., & Zhao, J. (2021). The monitoring role of the media: Evidence from earnings management. Journal of Business Finance & Accounting, 48(3-4), 533-563.

Dakhlallh, M. M., Rashid, N. O. R. F. A. D. Z. I. L. A. H., Amalina, W., Abdullah, W., & Al Shehab, H. J. (2021). The moderate effect of audit committee independence on the board structure and real earnings management: Evidence from Jordan. Journal of Contemporary Issues in Business and Government| Vol, 27(2), 124.

DeZoort, F.T., &d Steven E. Salterio, S. E. (2021). The Effects of Corporate Governance Experience and Financial-Reporting andAudit Knowledge on Audit Committee. Auditing Journal of Practice& Theory. Vol. 20, No. 2

Enofe, A. O., Iyafekhe, C., & Eniola, J. O. (2017). Board ethnicity, gender diversity and earnings management: evidence from quoted firms in Nigeria. International Journal of Economics, Commerce and Management, 6, 78-90.

Fan, Y., Jiang, Y., Zhang, X., & Zhou, Y. (2019). Women on boards and bank earnings management: From zero to hero. Journal of Banking & Finance, 107, 105607.

Feng, Z. Y., & Huang, H. W. (2021). Corporate governance and earnings management: A quantile regression approach. International Journal of Finance & Economics, 26(4), 5056-5072.

Francis, J., LaFond, R., Olsson, P., & Schipper, K. (2005). The market pricing of accruals quality. Journal of accounting and economics, 39(2), 295-327.

Fu, Y., Chen, S., & Ji, W. (2021). Board meeting attendance and earnings management: Evidence from Chinese firms. The North American Journal of Economics and Finance, 57, 101349.

Hassan, S. U., & Ahmed, A. (2012). Corporate governance, earnings management and financial performance: A case of Nigerian manufacturing firms. American International Journal of Contemporary Research, 2(7), 214-226.

Healy, P. M., & Wahlen, J. M. (1999). A review of the earnings management literature and its implications for standard setting. Accounting Horizons, 13(4), 365-383.

Ibrahim, G., Bello, A., & Kargi, H. S. (2015). Audit committee attributes and real activities manipulation of listed manufacturing firms in Nigeria. International Journal of Development and Sustainability, 4(9), 963-976.

Itopa, E., & Alexander, S. (2022). Board of Directors and Earnings Management: Evidence from the Nigerian Exchange Group. Journal of Accounting and Finance, 22, 3.

Jamaludin, N. D., Sanusi, Z. M., & Kamaluddin, A. (2015). Board structure and earnings management in Malaysian government linked companies. Procedia Economics and Finance, 28, 235-242.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of financial economics, 3(4), 305-360.

Kankanamage, C. A. (2015). The relationship between board characteristics and earnings management: Evidence from Sri Lankan listed companies.

Kothari, S.P., Leone, A., & Wasley, C. (2005). Performance Matched Discretionary Accrual Measure. Journal of Accounting and Economics. 39. 163-197.

Lo, H. C., Wu, R. S., & Kweh, Q. L. (2017). Do board reinforce or reduce agency problems? Earnings management and the post-IPO performance. International Review of Financial Analysis, 52, 62-76.

Mark, J. L., &Daniel, E. K. (2022). Effect of Board Attributes on Earnings Management of Listed Health Firms in Nigeria.Bingham University Journal of Accounting and Business (BUJAB) Vol. 7, No. 1,

Onwuchekwa, J. C., & Madumere, I. (2019). Board characteristics and earnings management: Evidence from quoted firms in Nigeria. Accounting and Taxation Review, 3(1), 118-129.

Vadasi, C., & Polyzos, K. (2023). Effects of Board Characteristics on Accruals Earnings Management in the Wake of Financial Crisis. Theoretical Economics Letters, 13(2), 202-220.

Yang, J. S., & Krishnan, G. V. (2013). Audit committee characteristics and earnings management: Evidence from fraudulent reporting. Journal of Accounting and Economics, 56(2-3), 104-121.

Appendix I

Summarize DACC BNED BM ACEXP FS

Variable	Obs	Mean	Std. dev.	Min	Max
DACC	100	.095767	.636319	-1.799162	5.395347
BNED	100	.5108247	.1895389	.125	.8571429
BM	100	4.133333	.9966235	2	6
ACEXP	100	.1851852	.1099155	0	.5
FS	100	6.578755	1.04809	3.930745	8.983825

DAC BI BM

BMACIND BMACIND FS

DAC	1.0000					
BI	0.2770	1.0000				
BM	-0.0067	0.4118	1.0000			
BIACIND	-0.0106	-0.0514	0.2336	1.0000		
BMACIND	-0.0106	-0.0792	0.4095	0.2458	1.0000	
FS	0.0878	0.2458	0.4821	0.3573	-0.0514	1.0000

```
. regress DACC BNED BM BIACIND BMACIND FS

      Source |       SS           df       MS      Number of obs   =       100
-------------+----------------------------------   F(5, 84)        =     62.03
       Model |  3.88639408         5  .777278816   Prob > F        =    0.0025
    Residual |  32.1498696        84  .382736543   R-squared       =    0.3578
-------------+----------------------------------   Adj R-squared   =    0.3147
       Total |  36.0362637        89  .404901839   Root MSE        =    .61866
------------------------------------------------------------------------------
        DACC | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
        BI   | -.0651158   .0258883    -2.52   0.012     -.115856   -.0143757
          BM |  .1982682    .122346     1.62   0.105    -.4380619    .0415256
     BIACIND | -.2156222   .0894619    -2.41   0.016     .0402801    .3909644
     BMACIND | -.0131596   .0149464    -0.88   0.379    -.0424541    .0161349
          FS |  .0602489   .0778459     0.77   0.441    -.0945561     .215054
       _cons | -.3447999    .483466    -0.71   0.478    -1.306225    .6166252
------------------------------------------------------------------------------
```

```
   Variable |      VIF       1/VIF
-------------+----------------------
         BM |     1.48    0.675983
         FS |     1.31    0.764853
       BNED |     1.21    0.827481
    BIACIND |     1.30    0.770956
     BMACIND      1.26    0.792778
-------------+----------------------
   Mean VIF |     1.33
```

. estat hettest

Breusch–Pagan/Cook–Weisberg test for heteroskedasticity

Assumption: Normal error terms

Variable: Fitted values of DACC

H0: Constant variance

chi2(1) = 0.92

Prob > chi2 = 0.330

Fixed-effects (within) regression Number of obs = 100

Group variable: id Number of groups = 10

R-squared: Obs per group:

Within = 0.0597 min = 10

Between = 0.0685 avg = 1.0

Overall = 0.2446 max = 10

F(5,75) = 34.95

corr(u_i, Xb) = -0.4308 Prob > F = 0.008

DACC	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
BNED	.2646452	1.406245	0.19	0.851	-2.536737	3.066028
BM	.0547925	.1824355	0.30	0.765	-.3086377	.4182228
BIACIND	-.0964498	.0248749	-3.88	0.000	.0469656	.145934
BMACIND	-.2739952	.6270877	-0.44	0.663	-1.523218	.9752275
FS	.1190869	.1162604	1.02	0.309	-.1125157	.3506895
_cons	-1.133514	.8865949	-1.28	0.205	-2.899701	.6326739
sigma_u	.30674197					
sigma_e	.61343628					
rho	.20002487 (fraction of variance due to u_i)					

F test that all u_i=0: F(9, 75) = 1.16 Prob > F = 0.333

. xtreg DACC BNED BM BIACIND BMACIND FS, re

Random-effects GLS regression Number of obs = 100

Group variable: id Number of groups = 10

R-squared: Obs per group:

Within = 0.2229 min = 10

Between = 0.5528 avg = 1.0

Overall = 0.3478 max = 10

Wald chi2(5) = 57.15

corr(u_i, X) = 0 (assumed) Prob > chi2 = 0.0010

DACC	Coefficient	Std. err.	z	P>|z|	[95% conf. interval]	
BNED	1.751294	.9271991	1.89	0.059	-.065983	3.568571
BM	-.2132403	.1460641	-1.46	0.144	-.4995207	.0730402
BIACIND	-.0811314	.0272764	-2.97	0.004	-.135393	-.0268699
BMACIND	.4125531	.5437266	0.76	0.448	-.6531315	1.478238
FS	.0602489	.0778459	0.77	0.439	-.0923262	.212824
_cons	-.3447999	.483466	-0.71	0.476	-1.292376	.602776

```
     sigma_u |          0
     sigma_e |  .61343628
         rho |          0   (fraction of variance due to u_i)
------------------------------------------------------------------------------

. hausman F R

                 ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |       F            R          Difference       Std. err.
-------------+----------------------------------------------------------------
        BNED |    .2646452     1.751294       -1.486649        1.057273
          BM |    .0547925    -.2132403        .2680328        .1093069
     BIACIND |    3.216121     -3.15621        6.372332        3.137524
     BMACIND |   -.2739952     .4125531       -.6865483        .3124105
          FS |    .1190869     .0602489         .058838         .086351
------------------------------------------------------------------------------
                          b = Consistent under H0 and Ha; obtained from xtreg.
           B = Inconsistent under Ha, efficient under H0; obtained from xtreg.

Test of H0: Difference in coefficients not systematic

    chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B)
            =   7.74
Prob > chi2 = 0.1710
```

Breusch and Pagan Lagrangian multiplier test for random effects

DACC[id,t] = Xb + u[id] + e[id,t]

Estimated results:

```
          |       Var     SD = sqrt(Var)
 ---------+-----------------------------
     DACC |   .4049018       .636319
        e |   .3763041       .6134363
        u |          0              0
```

Test: Var(u) = 0

chibar2(01) = 0.09

Prob > chibar2 = .34001

Appendix II

LISTED OF QUOTED INDUSTRIAL GOODS COMPANIES IN NIGERIA AS AT DECEMBER, 2021

S/N	NAME OF COMPANIES	DATE INCORPORATED	YEAR QUOTED	MARKET CAP.(N)AS AT DEC. 2021
				=N= '000
1	BUA FOODS PLC	April, 2005	January, 2022	2,152,056
2	DANGOTE CEMENT PLC	November, 1992	October, 2010	9,668,964

3	FLOUR MILLS NIG. PLC	September, 1960	November, 1978	9,904,081
4	LAFARGE AFRICA PLC	February, 1959	February, 1979	15,495,013
5	NORTHERN NIG. FLOUR MILLS PLC	October, 1971	October, 1978	1, 890,000,
6	NESTLE NIGERIA PLC	September, 1969	April, 1979	834,653,348
7	NOTORE CHEMICAL IND PLC	November, 2005	August, 2018	10,100,000
8	P Z CUSSONS NIGERIA PLC	April, 1948	May, 1972	9,960,356
9	UNILEVER NIGERIA PLC	November, 1923	April, 1973	5,999,144
10	VITAFOAM NIG PLC	April, 1962	September, 1978	3,814,445