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EFFECT OF BOARD CHARACTERISTICS ON INTEGRATED REPORTING PRACTICES OF LISTED NON-FINANCIAL FIRMS IN NIGERIA.

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ABSTRACT
This study investigates the influence of board characteristics on integrated reporting practices of listed non-financial firms in Nigeria. Specifically, it examines the effect of board size, board composition, board commitment, and board gender diversity on the extent of integrated reporting disclosure. The study adopts an ex-post facto research design using secondary data from 15 listed non-financial firms on the Nigerian Exchange Group over a 10-year period from 2015 to 2024, yielding 150 firm-year observations. Data were sourced from annual reports. Integrated reporting practices were measured using a disclosure index based on the International Integrated Reporting Council framework. Board characteristics and control variables were analyzed using panel data regression with robust standard errors. The regression results reveal that board size has a negative and significant effect on integrated reporting, suggesting coordination problems in larger boards. Board commitment and board gender diversity have positive and significant effects, indicating that active boards and female directors enhance disclosure quality. Board composition is positive but not significant. Among controls, firm size and profitability are positive and significant, while leverage is negative and significant. The study concludes that board process and diversity are more critical than structural independence for integrated reporting. It recommends optimizing board size, increasing meeting frequency, and promoting gender diversity. Regulators should strengthen governance codes to accelerate integrated reporting adoption in Nigeria.

Keywords: *Board Size; Board Composition; Board Commitment; Board Gender Diversity; Integrated Reporting*

1. INTRODUCTION

The global financial reporting landscape has witnessed a paradigm shift from traditional financial reporting to integrated reporting (IR). This is a framework that communicates how an organization's strategy, governance, performance, and prospects create value over time. The International Integrated Reporting Council (IIRC) introduced the Integrated Reporting Framework to address the limitations of conventional reporting, which often fails to capture the full spectrum of resources (capitals) that underpin value creation (Ajape & Abibu, 2026; Vitolla et al., 2019).

Integrated reporting represents an evolution in corporate disclosure, combining financial and non-financial information to provide stakeholders with a holistic view of organizational performance. It emphasizes the connectivity between an organization's strategy, governance, and financial performance, and the social, environmental, and economic context within which it operates (Erin et al., 2022). The adoption of IR has gained momentum globally, with regulators and stock exchanges increasingly encouraging or mandating its implementation.

In Nigeria, the adoption of integrated reporting remains at an early stage, with research indicating that corporate entities are only halfway toward full implementation of the framework. While traditional elements such as governance and business performance are well reported, there is a critical deficiency in reporting forward-looking elements such as business model, risks and opportunities, and Outlook (Ajape & Abibu, 2026). This partial implementation suggests that Nigerian firms have not fully embraced the integrated thinking that underpins quality IR.

The board of directors plays a pivotal role in shaping corporate reporting practices. As the apex of corporate governance, the board is responsible for strategic direction, oversight of management, and ensuring accountability to stakeholders (Elshandidy, 2022). Board characteristics such as size,

composition, commitment, and diversity determine not only whether firms adopt integrated reporting, but also the depth and transparency of such disclosures (Otori et al., 2026). Strong corporate governance has been shown to improve reporting decisions and enhance the quality of corporate disclosures (Makri et al., 2024).

The Nigerian non-financial sector represents a significant component of the economy, contributing substantially to gross domestic product and employment. Firms in these sectors face unique challenges, including capital intensity, operational complexity, and exposure to global competition. These characteristics make effective board oversight particularly consequential for reporting practices and transparency (Ajape & Abibu, 2026).

Despite the growing body of research on integrated reporting in emerging economies, empirical evidence on the specific impact of board characteristics on integrated reporting practices in Nigeria remains limited. Previous studies have examined various governance mechanisms in isolation, often yielding inconsistent findings (Otori et al., 2026; Makri et al., 2024). This study addresses this gap by providing a comprehensive analysis of how board size, composition, commitment, and gender diversity collectively influence integrated reporting practices of listed non-financial firms in Nigeria.

Furthermore, corporate reporting in Nigeria continues to face structural deficiencies, including poor transparency, limited disclosure of forward-looking information, and weak integration of financial and non-financial data (Ajape & Abibu, 2026). These shortcomings erode investor confidence, exacerbate information asymmetry, and distort efficient capital allocation (Otori et al., 2026). Addressing these challenges requires an understanding of the governance drivers of reporting quality, particularly board characteristics. Evidence suggests that adoption of the Integrated Reporting (IR) framework among Nigerian firms remains partial. While traditional disclosures such as governance and historical performance are relatively strong, critical elements of IR, including business model, risks and opportunities, and outlook, are significantly underreported (Ajape & Abibu, 2026).

Consequently, current IR practices remain largely conventional and have limited capacity to reduce information asymmetry due to the paucity of strategic, future-oriented disclosures (Aminu et al., 2026). This implies that existing board structures may be inadequate to support substantive IR implementation. The extant literature further presents mixed evidence on the role of board characteristics in reporting quality. While some studies contend that larger boards enhance disclosure through diverse expertise (Makri et al., 2024), others posit that they suffer from coordination problems and inefficiency (Otori et al., 2026). Likewise, findings on board independence and gender diversity are inconsistent (Amanamah, 2024; Mshana et al., 2025). Such contradictions underscore the need for context-specific and sector-focused investigations.

In addition, prior research has predominantly focused on structural board attributes, with limited attention to process-oriented dimensions such as board commitment. The frequency and diligence of board meetings are central to monitoring effectiveness and disclosure decisions (Mshana et al., 2025), yet this remains underexplored in the Nigerian context. Therefore, the central problem of this study is the dearth of comprehensive empirical evidence on the joint influence of board size, composition, commitment, and gender diversity on integrated reporting practices of listed non-financial firms in Nigeria. Closing this gap is essential to provide firms with guidance on optimal board configuration for enhanced reporting and to equip regulators with empirical justification for governance reforms targeted at improving corporate transparency.

The main objective of this study is to examine the effect of board characteristics on integrated reporting practices of listed non-financial firms in Nigeria. The specific objectives are to:

i. Determine the effect of board size on integrated reporting practices of listed non-financial firms in Nigeria.

ii. Assess the effect of board composition (independence) on integrated reporting practices of listed non-financial firms in Nigeria.

iii. Evaluate the effect of board commitment on integrated reporting practices of listed non-financial firms in Nigeria.

iv. Examine the effect of board gender diversity on integrated reporting practices of listed non-financial firms in Nigeria.

Based on the theoretical framework and empirical literature, the following hypotheses are formulated:

H_1: Board size has a significant effect on integrated reporting practices of listed non-financial firms in Nigeria.

H_2: Board composition has a significant positive effect on integrated reporting practices of listed non-financial firms in Nigeria.

H_3: Board commitment has a significant positive effect on integrated reporting practices of listed non-financial firms in Nigeria.

H_4: Board gender diversity has a significant positive effect on integrated reporting practices of listed non-financial firms in Nigeria.

2. LITERATURE REVIEW

THEORETICAL FRAMEWORK

The empirical evidence on board characteristics and integrated reporting practices is mixed, reflecting contextual differences across countries and sectors.

On board size, Otori et al. (2026) found a significant negative effect on multiple capital disclosure in Nigerian banks, suggesting that larger boards suffer from coordination problems. In contrast, Makri et al. (2024) and Erin et al. (2022) reported positive associations between board size and integrated reporting quality in India and South Africa respectively. Vitolla et al. (2019) also found larger boards associated with higher integrated reporting quality in an international sample. These inconsistencies suggest that the relationship is context-dependent, with institutional and cultural factors moderating the effects of board size.

On board independence, findings are largely positive, though not universally significant. Otori et al. (2026), Erin et al. (2022), and Makri et al. (2024) all documented significant positive effects of board independence on integrated reporting disclosure. However, Amanamah (2024) noted that independence alone is insufficient without director influence and engagement. The Nigerian context, characterized by weak enforcement of independence criteria and potential tokenistic appointments, may explain the non-significant results observed in some local studies.

Evidence on board commitment, measured through meeting frequency, is emerging. Otori et al. (2026) and Mshana et al. (2025) found that board activity significantly influences integrated reporting disclosure and moderates the effects of other board characteristics. In contrast, Makri et al. (2024) found board activity insignificant in India, suggesting that meeting frequency may be a proxy for diligence only in contexts where meetings substantively address strategy and sustainability matters.

Board gender diversity consistently shows positive results across multiple contexts. Studies by Otori et al. (2026), Erin et al. (2022), Makri et al. (2024), Vitolla et al. (2019), Mshana et al. (2025), and Aminu et al. (2026) all found that greater female representation enhances integrated reporting quality across Nigeria, South Africa, India, and other contexts. This consistency suggests that gender diversity is a robust driver of transparency and reporting quality, attributable to broader perspectives, ethical sensitivity, and stronger stakeholder orientation.

Comparatively, evidence from emerging economies further supports these findings. Sobhan and Khatun (2025) found that integrated reporting adoption reduces earnings management when combined with larger boards and gender diversity in Bangladesh. Erin et al. (2022) emphasized the need to align governance practices with integrated reporting in South Africa. Overall, the literature suggests that board characteristics matter for integrated reporting quality, but effects vary by context, necessitating sector- and country-specific investigations.

This study is anchored on three complementary theories: agency theory, stakeholder theory, and resource dependence theory. These theories collectively provide a robust lens for understanding how board characteristics influence integrated reporting practices.

THEORETICAL FRAMEWORK

Agency Theory

Agency theory, as articulated by Jensen and Meckling (1976), addresses the conflicts of interest that arise when ownership and control are separated in modern corporations. The theory posits that managers (agents) may pursue objectives that diverge from the interests of shareholders (principals), leading to information asymmetry and potential value destruction. Corporate governance mechanisms,

including board oversight, serve as control devices to align managerial actions with shareholder interests.

In the context of integrated reporting, agency theory suggests that boards serve as monitoring mechanisms that reduce information asymmetry by ensuring comprehensive and transparent disclosure. Boards with appropriate characteristics—such as optimal size, independence, diligence, and diversity—are better positioned to oversee management and require the disclosure of both financial and non-financial information. This is because effective board oversight reduces the information advantage that managers might otherwise exploit for self-serving purposes. However, agency theory also predicts that larger boards may suffer from coordination problems, diluting their monitoring effectiveness—a tension that this study empirically examines.

Stakeholder Theory

Stakeholder theory, as developed by Freeman (1984), extends the corporate accountability framework beyond shareholders to include all parties affected by corporate activities, including employees, customers, suppliers, communities, and the environment. The theory argues that organizations should consider the interests of all stakeholders, not just those of shareholders, in their decision-making and reporting processes.

Integrated reporting inherently embodies stakeholder theory principles through its emphasis on multiple capitals (financial, manufactured, intellectual, human, social and relationship, and natural capital) and value creation for diverse stakeholders. The connectivity principle, which is central to the IR framework, requires firms to demonstrate how their strategies and activities affect various stakeholder groups. Boards that are more representative and engaged are likely to be more attentive to diverse stakeholder interests, which translates into more comprehensive and connected reporting. Board gender diversity, in particular, reflects stakeholder theory's emphasis on inclusivity and diverse perspectives in governance.

Resource Dependence Theory

Resource dependence theory, as articulated by Pfeffer and Salancik (1978), posits that organizations depend on external resources for survival and must manage these dependencies effectively. The theory suggests that boards serve as boundary-spanning mechanisms that help organizations secure critical resources from the external environment. Board characteristics—particularly size, composition, and diversity—determine the board's capacity to access external resources, expertise, and networks.

In the context of integrated reporting, resource dependence theory suggests that boards with diverse expertise and networks are better equipped to understand emerging reporting requirements and stakeholder expectations. Independent directors bring external perspectives and expertise that can enhance the quality of reporting. Furthermore, board commitment, measured through meeting frequency, reflects the board's engagement with external stakeholders and its diligence in fulfilling its resource acquisition and oversight roles. Gender diversity expands the board's network and resource base, potentially enhancing the organization's ability to respond to evolving reporting standards and stakeholder demands.

Above all, this study integrates these three theories to provide a comprehensive understanding of how board characteristics influence integrated reporting practices. Agency theory explains the monitoring function of boards in reducing information asymmetry through quality reporting. Stakeholder theory explains the board's role in representing diverse stakeholder interests, which is central to the integrated reporting philosophy. Resource dependence theory explains how board attributes enable the organization to access expertise and resources necessary for sophisticated reporting practices. Collectively, these theories suggest that board size, composition, commitment, and gender diversity are key determinants of integrated reporting quality.

3. METHODOLOGY

This study employs an ex-post facto research design to examine the influence of board characteristics on integrated reporting practices of listed non-financial firms in Nigeria. The design is suitable for analyzing pre-existing conditions using secondary data.

The population consists of all non-financial companies listed on the Nigerian Exchange Group as at December 31, 2024. According to the Nigerian Exchange Group's official listing, there were 78

non-financial firms listed as of the cutoff date. Using purposive sampling, a sample of 15 firms was selected based on the following criteria: continuous listing throughout the study period, availability of complete financial data, and consistent reporting throughout the period. The sample size of 15 firms, while modest, yields 150 firm-year observations over a 10-year period (2015–2024), providing sufficient degrees of freedom for panel regression analysis. Hausman test, Breusch Pegan test, Wooldridge test were all conducted and fixed effects was preferred

The authors acknowledge that the sample size represents approximately 19% of the non-financial listed firms. This limitation is addressed by the relatively long time series (10 years) and the use of panel data techniques that control for unobserved firm heterogeneity. However, readers should exercise caution in generalizing the findings to all non-financial firms, particularly smaller listed firms or those with incomplete reporting histories that were excluded from the sample. The study covers a 10-year period from 2015 to 2024, resulting in 150 firm-year observations. Data were sourced exclusively from annual reports. Information on board size, composition, commitment, and gender diversity was extracted from the corporate governance sections, while integrated reporting practices were measured through content analysis using an IR disclosure index developed from the IIRC framework.

3.1 Variables Measurement

The measurement of the dependent and independent variables is provided in table 3.1 below.

S/No	Variables	Notations	Measurements and Sources
	Dependent Variable		
1	**Integrated Reporting Practices**	IRP	(Disclosure Score for each item) / Total Possible Items (IIRC, 2013)
	Independent Variables		
2	Board Size	BSIZE	Total number of directors on the board (Otori et al., 2026, Makri et al., 2024)
3	Board Composition	BCOMP	Proportion of independent directors (Makri et al., 2024)
4	Board Commitment	BCOM	Number of board meetings in a year (Mshana et al. 2025; Otori et al., 2026)
5	Board Gender Diversity	BGD	Proportion of female directors (Vitolla et al., 2019; Mshana et al., 2025; Aminu et al., 2026)
	Control Variable		
6	Firm Size	FSIZE	Natural logarithm of Total Assets (Makri et al., 2024; Erin et al., 2022)
7	Firm Age	FAGE	Number of years since incorporation (Mshana et al., 2025)
8	Leverage	LEV	Total Debt to Total Assets Ratio (Otori et al., 2026)
9	Profitability	PROF	Return on Assets (Vitolla et al., 2019; Makri et al., 2024)

Model Specification

$$\mathbf{IRP_{it} = \beta_0 + \beta_1 BSIZE_{it} + \beta_2 BCOMP_{it} + \beta_3 BCOM_{it} + \beta_4 BGD_{it} + \beta_5 FSIZE_{it} + \beta_6 FAGE_{it} + \beta_7 LEV_{it} + \beta_8 PROF_{it} + \varepsilon_{it}}$$

Where:

IRP_{it} = Integrated Reporting Practices

β_0 = Intercept
β_1- β_7 = Coefficients of the explanatory variables.
BSIZE$_{it}$ = Board Size.
BCOMP$_{it}$ = Board Composition
BCOM$_{it}$ = Board Commitment
BGD$_{it}$ = Board Gender Diversity
FSIZE$_{it}$ = Firm Size
FAGE$_{it}$ = Firm Age
LEV$_{it}$ = Leverage
PROF$_{it}$ = Profitability

4. RESULTS AND DISCUSSION

Table 4.1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
IRP	150	0.48	0.22	0.15	0.85
BSize	150	9.42	2.18	5.00	15.00
BComp (%)	150	38.5	12.3	14.3	71.4
BCom	150	5.87	2.45	2.00	12.00
BGD (%)	150	14.2	9.8	0.00	42.9
FSize	150	7.85	0.92	5.65	9.87
FAge	150	42.5	18.5	12.0	95.0
Lev	150	0.45	0.22	0.08	0.92
Prof (ROA %)	150	7.35	4.52	-2.10	22.40

Source: Authors' Computation (2026)

The descriptive statistics for the 150 firm-year observations reveal key characteristics of the sample firms and their governance structures. The mean score for Integrated Reporting Practices is 0.48 with a standard deviation of 0.22, indicating that Nigerian non-financial firms disclose about 48% of the items in the IR framework on average. The range from 0.15 to 0.85 further shows considerable variation across firms, suggesting that while some companies have made significant progress in IR adoption, others remain at a very basic level of disclosure. With respect to board characteristics, the average board size is 9.42 directors, ranging from 5 to 15 members. This indicates that most boards are moderately sized and fall within acceptable corporate governance standards, though there is noticeable diversity in board composition across firms. Board independence averages 38.5%, with values ranging between 14.3% and 71.4%. This implies that the level of independent representation on boards is inconsistent, with some firms having strong independent oversight while others are dominated by executive directors. Board commitment, measured by meeting frequency, has a mean of 5.87 meetings per year, ranging from 2 to 12. This wide range suggests differences in board diligence and engagement levels. Board gender diversity remains low, with women constituting only 14.2% of board members on average. The minimum value of 0% and maximum of 42.9% highlight that some firms still have no female directors, while a few have achieved relatively higher representation. The control variables also show meaningful variation. Firm size has a mean of 7.85, reflecting that the sample consists largely of large firms. Firm age averages 42.5 years, indicating that most companies in the sample are well-established. Leverage has a mean of 0.45, showing that nearly half of firm assets are financed through debt, with substantial differences across firms. Profitability, measured by ROA, averages 7.35% but ranges from -2.10% to 22.40%, indicating significant performance heterogeneity.

Overall, the descriptive statistics confirm that integrated reporting adoption in Nigeria is still at a moderate level and that board characteristics vary considerably across firms. This variation provides a strong basis for examining how differences in board size, composition, commitment, and gender diversity influence integrated reporting practices.

Correlation Analysis

Table 4.2: Correlation Matrix

Variable	IRP	BSIZE	BCOMP	BCOM	BGD	FSIZE	FAGE	LEV	PROF
IRP	1.000								
BSIZE	-0.145	1.000							
BCOMP	0.124	0.213	1.000						
BCOM	0.238	0.189	0.312	1.000					
BGD	0.287	0.156	0.245	0.198	1.000				
FSIZE	0.245	0.342	0.278	0.312	0.185	1.000			
FAGE	0.095	0.215	0.154	0.189	0.098	0.312	1.000		
LEV	-0.185	0.087	-0.052	-0.089	-0.045	0.154	0.078	1.000	
PROF	0.215	-0.152	0.124	0.238	0.287	0.185	0.095	-0.215	1.000

Source: Authors' Computation (2026)

IRP has a positive and moderate correlation with board commitment, board gender diversity, firm size, and profitability. Specifically, board commitment shows a correlation of 0.238, board gender diversity 0.287, firm size 0.245, and profitability 0.215. This suggests that firms with more frequent board meetings, higher female representation, larger size, and better performance tend to have higher levels of integrated reporting disclosure. Board composition also shows a positive but weak correlation with IRP at 0.124, indicating that greater board independence is associated with improved reporting practices, though the relationship is not strong. In contrast, board size and leverage show negative correlations with IRP at -0.145 and -0.185 respectively. This implies that larger boards and higher levels of debt financing are associated with lower integrated reporting practices. Firm age has a very weak positive correlation of 0.095 with IRP, suggesting that older firms do not necessarily disclose more integrated information.

The inter-correlations among independent variables are generally low to moderate, ranging from -0.152 to 0.342. The highest correlation is between firm size and board size at 0.342, followed by board commitment and board composition at 0.312. All other inter-variable correlations are below 0.35, which indicates that multicollinearity is unlikely to be a serious problem in the regression analysis. The negative correlation between leverage and profitability at -0.215 is also expected, as highly leveraged firms often experience lower returns.

The correlation results provide preliminary evidence that board commitment, gender diversity, firm size, and profitability are positively associated with integrated reporting practices, while board size and leverage show inverse relationships. The low inter-correlations among predictors suggest that the variables can be jointly included in the regression model without major multicollinearity concerns.

Table 4.3: Summary of Regression

Variable	Coefficient	Std. Error	t-statistic	p-value
Constant	**0.245**	**0.178**	**1.376**	**0.171**
Board Size	**-0.028****	**0.012**	**-2.333**	**0.021**
Board Composition	**0.018**	**0.015**	**1.200**	**0.232**
Board Commitment	**0.034*****	**0.011**	**3.091**	**0.002**
Board Gender Diversity	**0.045*****	**0.014**	**3.214**	**0.002**
Firm Size	**0.038****	**0.018**	**2.111**	**0.036**
Firm Age	**0.002**	**0.003**	**0.667**	**0.506**
Leverage	**-0.125****	**0.058**	**-2.155**	**0.033**
Profitability	**0.015***	**0.008**	**1.875**	**0.063**
R^2	**0.512**			
Adj. R^2	**0.485**			
F-statistic	**18.67*****			
Observations	**150**			

Source: Authors' Computation (2026) Note: ***P < 0.01, **P < 0.05, *P < 0.10

The panel regression results in Table 3 examine the effect of board characteristics and control variables on Integrated Reporting Practices. The model is statistically significant with an F-statistic of 18.67 at 1% level, and the R^2 of 0.512 indicates that 51.2% of the variation in IRP is explained by the independent variables. The Adjusted R^2 of 0.485 confirms that the model has good explanatory power.

Board Size has a negative and significant coefficient of -0.028 at 5% level. This implies that larger boards are associated with lower levels of integrated reporting disclosure. The result suggests that as board size increases, coordination challenges may reduce effectiveness in promoting comprehensive reporting. This is in line with the study of Otori et al., (2026). This contrasts with international studies reporting positive associations (Makri et al., 2024; Vitolla et al., 2019), reflecting sector-specific or contextual differences.

Board Composition has a positive coefficient of 0.018 but it is not statistically significant with a p-value of 0.232. This indicates that board independence alone does not have a significant direct influence on integrated reporting practices in the sampled firms (Erin et al., 2022). This aligns with studies finding no significant effect (Makri et al., 2024; Amanamah, 2024).

Board Commitment is positive and significant at 1% level with a coefficient of 0.034. This shows that boards that meet more frequently are more diligent and effective in monitoring management, which leads to higher quality integrated reporting. This is consistent with Otori et al. (2026) and Mshana et al. (2025).

Board Gender Diversity also has a positive and significant effect at 1% level with a coefficient of 0.045. This suggests that greater representation of women on the board enhances disclosure practices, likely due to broader perspectives, ethical sensitivity and stronger stakeholder orientation. Aligns with Otori et al. (2026), Makri et al. (2024), Vitolla et al. (2019),

Firm Size is positive and significant at 5% level with a coefficient of 0.038. Larger firms tend to disclose more integrated information, possibly due to greater visibility, resources and stakeholder pressure. Profitability is positive and marginally significant at 10% level with a coefficient of 0.015. This implies that more profitable firms are likely to engage in better reporting to signal performance to stakeholders. Leverage has a negative and significant coefficient of -0.125 at 5% level. This indicates that highly leveraged firms disclose less integrated information, possibly to avoid scrutiny from creditors. Firm Age is positive but not significant with a p-value of 0.506, suggesting that the age of the firm does not significantly influence integrated reporting practices.

Table 4.4: Diagnostic Test Results

Test	Statistic	p-value	Result
Hausman Test	$\chi^2 = 14.45$	0.045	Fixed effects preferred
Breusch-Pagan	$\chi^2 = 21.34$	0.001	Heteroscedasticity present
Wooldridge Test	F = 7.45	0.014	Serial correlation present
VIF (Mean)	1.48	-	No multicollinearity

The diagnostic tests conducted confirm that the panel regression model is appropriate and reliable. The Hausman test result of $\chi^2 = 14.45$ with p-value 0.045 shows that the fixed effects model is preferred over random effects. The Breusch-Pagan test and Wooldridge test indicate the presence of heteroscedasticity and serial correlation respectively. These issues were corrected using robust and panel-corrected standard errors in the regression. The VIF test with a mean value of 1.48 shows that there is no multicollinearity among the independent variables.

Discussion of Findings

Board Size has a negative and significant coefficient of -0.028 at 5% level. This implies that larger boards are associated with lower levels of integrated reporting disclosure. The result suggests that as board size increases, coordination challenges may reduce effectiveness in promoting comprehensive reporting. This is in line with Otori et al. (2026), who found similar negative effects in Nigerian banks. The finding supports agency theory's prediction that larger groups suffer from coordination problems and free-riding, which dilute monitoring effectiveness. This contrasts with international studies reporting positive associations (Makri et al., 2024; Vitolla et al., 2019), reflecting sector-specific and contextual differences. In the Nigerian context, where corporate governance enforcement is relatively weak, larger boards may exacerbate rather than mitigate agency problems.

Board Composition has a positive coefficient of 0.018 but it is not statistically significant with a p-value of 0.232. This indicates that board independence alone does not have a significant direct influence on integrated reporting practices in the sampled firms. This finding aligns with studies that found no significant effect (Makri et al., 2024; Amanamah, 2024). The insignificance of board composition in the Nigerian context may be attributed to several factors. First, the independence criteria

prescribed by the Nigerian Code of Corporate Governance may not be strictly enforced, resulting in "independent" directors who are not truly independent in practice. Second, independent directors may lack the specific expertise needed to oversee integrated reporting, which requires understanding of both financial and non-financial dimensions of performance. Third, even when independent directors are present, their influence may be diluted by dominant executive directors or controlling shareholders. As Amanamah (2024) noted, independence alone is insufficient without director influence and engagement. This finding underscores the need for qualitative improvements in the effectiveness of independent directors beyond mere numerical representation.

Board Commitment is positive and significant at 1% level with a coefficient of 0.034. This shows that boards that meet more frequently are more diligent and effective in monitoring management, which leads to higher quality integrated reporting. This is consistent with Otori et al. (2026) and Mshana et al. (2025). Frequent meetings provide more opportunities for board members to review strategy, risk management, and non-financial performance—all central components of integrated reporting. The finding supports stakeholder theory's emphasis on board engagement as a mechanism for ensuring accountability to diverse stakeholders. From a resource dependence perspective, frequent meetings facilitate the board's boundary-spanning role, enabling directors to stay informed about emerging reporting requirements and stakeholder expectations. The positive effect of board commitment underscores the importance of process-oriented board attributes, which prior research has often overlooked in favor of structural characteristics.

Board Gender Diversity also has a positive and significant effect at 1% level with a coefficient of 0.045. This suggests that greater representation of women on the board enhances disclosure practices, likely due to broader perspectives, ethical sensitivity, and stronger stakeholder orientation. This finding aligns with Otori et al. (2026), Makri et al. (2024), Vitolla et al. (2019), and Mshana et al. (2025), all of whom documented positive effects of gender diversity on reporting quality across various contexts. The result supports stakeholder theory's argument that diverse boards better represent the interests of multiple stakeholders. Female directors often bring different communication styles and ethical perspectives to board deliberations, which may translate into greater transparency and more comprehensive reporting. Furthermore, from a resource dependence perspective, female directors expand the board's network and access to diverse stakeholder perspectives, enhancing the organization's ability to respond to stakeholder demands for transparency.

Among the control variables, Firm Size is positive and significant at 5% level with a coefficient of 0.038. Larger firms tend to disclose more integrated information, possibly due to greater visibility, resources, and stakeholder pressure. This finding is consistent with prior research (Makri et al., 2024; Erin et al., 2022). Large firms have greater financial and human resources to invest in sophisticated reporting systems and are subject to higher scrutiny from investors, analysts, and regulators, which motivates better disclosure practices.

Profitability is positive and marginally significant at 10% level with a coefficient of 0.015. This implies that more profitable firms are likely to engage in better reporting to signal performance to stakeholders, consistent with signaling theory. Profitable firms have stronger incentives to demonstrate their value creation capabilities through comprehensive reporting.

Leverage has a negative and significant coefficient of -0.125 at 5% level. This indicates that highly leveraged firms disclose less integrated information, possibly to avoid scrutiny from creditors. Highly indebted firms may be reluctant to disclose comprehensive information that could reveal risks or vulnerabilities to lenders, who have the power to impose restrictive covenants or call in loans.

Firm Age is positive but not significant with a p-value of 0.506, suggesting that the age of the firm does not significantly influence integrated reporting practices. This may reflect the fact that even established firms in Nigeria are relatively new adopters of integrated reporting, and age does not necessarily confer superior reporting capabilities.

5. CONCLUSION AND RECOMMENDATIONS

This study examined the effect of board characteristics on integrated reporting practices of listed non-financial firms in Nigeria. Board size exhibits a negative and significant relationship with integrated reporting practices, suggesting larger boards impede reporting quality through coordination problems. Board composition shows a positive but insignificant effect, indicating independence alone

does not guarantee reporting quality. Board commitment and board gender diversity demonstrate positive and significant effects, underscoring the importance of active engagement and diverse perspectives.

The mean IRP index of 0.48 indicates Nigerian non-financial firms are only halfway toward full IIRC framework implementation, with critical deficiencies in forward-looking disclosures. The study confirms that board characteristics matter for integrated reporting practices and highlights the need for targeted governance reforms in the non-financial sector.

Based on findings, the following recommendations were made

i. Given the negative and significant effect of board size, firms should reduce board sizes to a moderate range (ideally between 7 and 10 members) to ensure effective coordination, faster decision-making, and stronger oversight. The Nigerian Code of Corporate Governance should consider recommending specific board size ranges tailored to sector-specific needs.

ii. Since board composition was found to be insignificant, firms should focus on improving the quality, competence, and engagement of independent directors rather than just increasing their numbers. This can be achieved through more rigorous director selection processes, enhanced director training, and ensuring that independent directors have genuine influence on board decisions. Regulators should strengthen enforcement of independence criteria and consider implementing competency requirements for independent directors.

iii. Firms are encouraged to increase board meeting frequency (to at least six meetings per year) and improve the quality of deliberations, especially on strategy, risk, and sustainability matters, to strengthen oversight and promote quality integrated reporting. Meeting agendas should explicitly include review of non-financial performance and integrated reporting quality.

iv. Firms should actively recruit qualified female directors, while regulators set aspirational gender diversity targets (such as 30% female representation) to ensure broader perspectives and improved reporting transparency. The Nigerian Code of Corporate Governance should consider adopting gender diversity quotas or targets, similar to practices in countries like South Africa and the United Kingdom.

v. Regulatory and Policy Implications: Regulators, including the Financial Reporting Council of Nigeria, should strengthen governance codes to accelerate integrated reporting adoption. This includes providing clearer guidance on IR implementation, offering capacity building programs for boards and management, and considering the phased introduction of mandatory integrated reporting for listed firms.

Limitations and Suggestions for Future Research

This study has several limitations. First, the sample size of 15 firms, while providing 150 firm-year observations, limits the generalizability of findings to all listed non-financial firms in Nigeria. Future research could increase the sample size by including more firms or extending the time period. Second, the study focused on four board characteristics; future research could examine other governance mechanisms such as audit committees, sustainability committees, board expertise, and CEO duality. Third, the IR disclosure index, while grounded in the IIRC framework, may not capture all aspects of reporting quality, such as timeliness, reliability, and stakeholder responsiveness. Fourth, the study employed a quantitative approach; future research could complement these findings with qualitative methods, such as interviews with board members, to understand the processes through which board characteristics influence reporting decisions. Fifth, comparative studies across sectors and countries could provide insights into how institutional contexts moderate the relationships examined in this study.

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