Drivers of Voluntary Integrated Reporting in the Nigerian Listed Deposit Money Banks

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ABSTRACT

The advent of integrated reporting has attracted the attention of scholars globally to fill the gap in Nigeria in general, and Nigerian deposit money banks in particular. This study investigates the drivers of voluntary integrated reporting in Nigerian banking industry. The study crafted in the Nigerian listed Deposit Money Banks (DMBs) and all 13 banks listed on the Nigerian Exchange Group were taken as samples, and data were generated from the annual reports and accounts of the bank for the period of eight years from 2014 to 2021; descriptive statistics, correlation, and regression analysis were used for data analyses. The findings reveal that the factors that drive a bank to voluntarily report integrated reporting framework are the size of the bank, the age of the bank, the level of growth, the banks audited by the big international audit firms, and the board dominated by male directors; the findings also reveal that the average level of integrated reporting in the industry is 55%. The study recommended that the Nigerian exchange group should encourage listed companies to adopt integrated reports, especially the premium board, the Financial Reporting Council (FRC) should provide a framework for voluntary integrated reporting in Nigeria and finally the Central Bank of Nigeria (CBN) should provide technical support that would ease the implementation of the IR framework by the Nigerian Deposit Money Banks (DMB).

Keywords: Drivers, Voluntary, Integrated Reporting, Nigerian Banking Industry

INTRODUCTION

Corporate reporting witnessed many changes in the 21st century due to global corporate scandals, Globalization and International Financial Reporting Standards (IFRS) adoption, and the shift from shareholder theory to stakeholder theory. Traditionally, the objective of corporate reporting is to provide information to providers of assets (investors, lenders, and other creditors) in order to make informed decisions. In the 21st century, there are a growing number of business stakeholders, and traditional reporting models are being challenged to keep pace with these challenges by redefining value and increasing the desire to see beyond conventional financial data (Climent 2016). There is a general concern that companies should be answerable to a wider range of stakeholders who are taking increasing interest in their day-to-day operations. Many stakeholders are interested in the positive and negative aspects of a company's operations,

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its impact on the environment and local communities, and how it treats and develops its workforce. Commercial pressure, particularly for large companies, extends their financial reporting beyond their shareholders to other stakeholders such as employees, the government, the local community, and society in general (ICAN 2021).

Successful companies are finding new ways to make corporate reporting fit-for-purpose in the 21st century so that everyone with an interest in an organization can understand its purpose, impacts and future prospects this is by going beyond financial statements to report other aspects of entity (non-financial data) these reports include Corporate Social Responsibility (CSR) report, Environmental, Sustainability and Governance (ESG) Report, Risk Reporting (RR) and recently, Integrated Reporting (Climent 2016)

Integrated Reporting ‘‘is a concise communication about how an organization’s strategy, governance, performance and prospects, in the context of the external environment, lead to the creation of value over the short, medium and long term.” (IIRC, 2021). Conceptually, integrated reporting would build on the existing financial reporting model to present additional information on a company’s strategy, governance, and performance. It aims to provide a complete picture of a company, including how it demonstrates stewardship and creates and sustains value. Integrated reporting builds on the existing financial reporting model to incorporate nonfinancial information that can assist stakeholders in understanding how a company creates and sustains value over the long term, with the aim of integrated report is to benefiting all stakeholders interested in an organization’s ability to create value over time, including employees, customers, suppliers, business partners, local communities, legislators, regulators, and policymakers. (PWC, 2013, IIRC, 2021).

Integrated reporting is gaining more attention globally, forcing all companies listed on the Johannesburg Stock Exchange to disclose integrated reports, and is gaining popularity in some Asian countries, such as India, Japan, Singapore, and Malaysia (Sun et al., 2022). Integrated Reporting is an evolution of CSR and follows three stages of evolution: (1) the emergence of non-financial disclosures, (2) the traditional CSR Reporting era, and (3) the revolution of IR. IR promotes sustainable business practices (Ioana and Adriana, 2013; Sun et al. 2022).

Integrated Reporting has been envisioned as the Reporting practice of the future, and globally, there is an increased rate of voluntary adoption (Ernst and Young 2022). Nigeria has plans to mandate sustainability reporting for companies listed on premium boards. However, sustainability reports lack connectivity to strategy, governance, performance, and prospects in the context of the external environment or the connection to financials. Investors in and outside Nigeria require a more integrated corporate report that shows how corporations in Nigeria create value by employing all capital, not just financial capital. The Institute of Chartered Accountants of Nigeria, realized this, took proactive measures to establish the Nigeria Integrated Reporting Committee (NIRC), The main aim of the NIRC is to serve as an influential committee that will promote and support the adoption of integrated reporting in Nigeria and West Africa in general (Okwosua, 2019).

Integrated reporting framework developed by International Integrated Reporting Council consists of eight (8) elements which companies are expected to publish integrated reporting such as an overview of organizations and external environment, corporate governance, business model, risks and opportunities, strategies and resources allocation, performance, outlook and basis of preparation and presentation (IIRC 2021)

The advent of integrated reporting has attracted the attention of many scholars globally, at both the micro and meso levels of research. Studies on integrated reporting is significantly improved with the area (integrated

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reporting) moving from a nascent area to an intermediate area, and studies on integrated reporting have contributed to the development and implementation of the report globally (Yahaya & Oyabe, 2022). Previous studies have shown that certain specific characteristics, such as size, industry, and profitability, affect the reporting of social, environmental, and sustainability reports; however, little has been reported about integrated reports despite their recognized usefulness (Sanchez et al., 2013). A number of external factors (legal, cultural, economic) as well as internal factors such as firm size, leverage, profitability and a host of other corporate governance characteristics may influence integrated reports produced by an entity (Iredele, 2019)

The Nigerian Banking industry is characterized as a successful industry in the Nigerian stock exchange, as most banks are on the premium board of the market and some operate in more than one country. NIRC encourages businesses to integrate information into their IFRS statements and sustainability reports to produce an integrated report that communicates information across an International Framework (Okwosua, 2019). Few of empirical evidence exists has supported the presence of IR framework elements in the traditional annual reports of quoted companies and the little concentration of research on the drivers supporting the implementation of the IR framework in corporate Nigeria, this makes it imperative for corporate reporting researchers to investigates the possible drivers of voluntary IR in Nigeria (Adelowotan & Udofia 2021)

1.2 Objectives of the Study

Accordingly, the main aim of this study is to investigate the drivers of voluntarily integrated reporting in the Nigerian banking industry. The specific objectives are to investigate:
a. the impact of firm size on voluntarily integrated reporting in the Nigerian banking industry.
b. the impact of firm age on voluntarily integrated reporting in the Nigerian banking industry.
c. the impact of firm profitability on voluntarily integrated reporting in the Nigerian banking industry.
d. the impact of auditor type on voluntary integrated reporting in the Nigerian banking industry.
e. the impact of audit committee expertise on voluntary integrated reporting in the Nigerian banking industry.
f. the impact of growth on voluntarily integrated reporting in the Nigerian banking industry.
g. the impact of board size on voluntarily integrated reporting in the Nigerian banking industry.
h. the impact of board independence on voluntarily integrated reporting in the Nigerian banking industry.
i. the impact of board gender diversity on voluntarily integrated reporting in the Nigerian banking industry.

The paper is structured into five sections: Section 2, literature review and hypotheses development; Section 3, methodology; Section 4, results and discussion; and Section 5, conclusions and recommendations.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1 Firm Size and Integrated Reporting

Stakeholder and Legitimacy theories assume that larger firms tend to have more stakeholders than smaller firms; therefore, larger firms report more accounting information than smaller firms, which is also in line with agency theory. Similarly, the literature argues that larger firms usually report more accounting information than smaller firms for three reasons (1). Management consultants and large companies are more likely to have well-qualified consultant (2). Competitive advantage: Big firms have more resources than small firms in preparing accounting information and funding implicit costs (3). Political costs: Big firms may

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have more incentives to analyze and select appropriate accounting criteria that decrease the impact on accounting information (Iredele, 2019; Aledo et al., 2009).

Larger companies are more likely to report more accounting information because they act to protect their reputation and are more subject to requests for information from various stakeholders than small companies. Therefore, larger firms benefit from providing investors with additional accounting information. The size of a company is considered an important factor in corporate reporting. Based on the above discussion, it can be expected that larger companies will voluntarily report integrated reporting frameworks to a greater extent than smaller companies with a lower size (Alfraih & Almutawa, 2014; Demir & Bahadir, 2014; Hieu & Lan, 2015).

Despite the above assertion, several empirical evidence carried out and produced different result Senani et al (2022), Pinto et al (2022), Marrone (2020), Akhter (2019) found positive significant impact of firm size on integrated reporting, in contrast Cao et al (2023), Nishitani et al (2021), found negative significant and Maroun (2019) found insignificant impact.

H_{01}: Firm size does not have significant impact on integrated reporting

2.2 Firm Age and Integrated Reporting

Legitimacy theory posits that public reputation is decided by how long a company has been in business; therefore, older firms are believed to disclose more information because they have improved their financial accounting and reporting practices over time. Senani et al (2022). Old firms attempt to enhance their reputation and image in the market. Younger companies may suffer competitive disadvantage if they disclose certain items such as information on research expenditure, capital expenditure, and product development, and have the cost and ease of gathering, processing, and disseminating the required information; younger companies may lack a track record to rely on for public disclosure, particularly voluntary information, and therefore may have less information to disclose or less rich disclosures (Cao et al 2022, Marrone & Oliva, 2019).

Older firms are more likely than younger firms to have established, well-organized professional staff to deal with the technical aspects of their financial statements. Younger firms tend to concentrate on product and market development rather than accounting when establishing their businesses. Additionally, managers of younger firms tend to be less experienced in running listed corporations and complying with accounting standards (Glaum & Street, 2003).

Studies such as Senani et al. (2022), Sun et al. (2022), and Baboukardos and Rimmel (2016) found a positive relationship between age and Integrated, while AL Mosh et al. (2022), Oktorina et al. (2021), Vitolla et al. (2020), and Marrone and Oliva (2019) found an insignificant impact.

H_{02}: Firm age does not have significant impact on integrated reporting

2.3 Profitability and Integrated Reporting

Signaling theory predicts that companies with good performance are more likely to report more information. A general proposition is that the disclosure of accounting information is positively related to corporate profitability. Firms with higher performance may voluntarily report additional information to distinguish

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themselves from lower-performing companies. This can help in raising capital; managers of firms with good performance are motivated to report additional information in order to signal the quality of management and to support the continuance of appointment and remuneration. Companies may report more information when they have good news to attract investors or when they have bad news to inform investors of their financial status (Sukthomya, 2011, Albitar, 2015).

Majority of previous studies found insignificant impact between profitability and integrated reporting like Okorina et al (2021), Phoswana at al (2021), Meuleman (2021), Karamahmutoğlu and Kuzey (2018) while Iredele (2019), Marrone (2020), Pinto et al (2022), Alade and Odugbemi (2022) found positive significant impact between profitability and integrated reporting in contrast Cao et al (2023), Hoang et al (2020) found negative significant impact.

H_{03}: Profitability does not have significant impact on integrated reporting

2.4 Auditor Type and Integrated Reporting

The extent of the information reported may be associated with the audit firm size. Agency theory suggests that big audit firms act as a means to reduce agency costs and use monitoring roles by limiting managers' opportunistic behavior. Moreover, large audit firms are more likely to associate with clients who report a high level of information in their annual financial statements. Most of the literature on voluntary reporting states that firms that are externally audited by big four (4) audit companies tend to report more information than those audited by other firms. This increase occurs because large audit firms, unlike small audit firms, deal with many clients, and any loss that they could incur from a possible decrease in their client portfolios as an outcome of their requests for greater disclosure would be economically sustainable (Amico & Biscotti

2013; Demir & Bahadir 2014). Maroun (2019) demonstrated a positive significant relationship between integrated reporting and auditor typer.

H_{04}: Auditor type does not have significant impact on integrated reporting

2.5 Audit Committee Expertise and Integrated Reporting

Agency theory advocates that audit committees can be a monitoring mechanism that improves the quality of information flow between firm owners (shareholders and potential shareholders) and managers, especially in a financial reporting environment where the two have disparate information levels. Given the influence of audit committees on the context and content of corporate annual reports.

The structure of the audit committee determines the level of monitoring and financial reporting. It has been argued that firms with effective and independent audit committees report more accounting information than do firms with weak audit committees. The level of expertise is another factor that enhances the effectiveness of the audit committee. This expertise should be based on members of the audit committee, who possess knowledge and experience in accounting and finance. Hence, having independent and qualified audit committee members is assumed to enhance the quality of a firm's financial reporting (Aljifri et al., 2014). Sun et al (2019) documented insignificant impact of board committee on integrated reporting, Ahmed Haji and Anifowose (2016) reported positive impact of audit committee and integrated reporting

H_{05}: Audit Committee expertise does not have significant impact on integrated reporting

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2.6 Growth and integrated reporting

The literature argues that accounting information disclosure exposes the existence of business opportunities to competitors, leading to a competitive disadvantage in disclosing companies as a result of this accounting information disclosure tends to decrease for companies with higher growth rates; in contrast, Glaum and Street (2003) argue that firms with higher growth rates tend to disclose more information than firms with lower growth rates.

The literature measures growth rate as either growth on sales turnover, ratio between market value and book value of equity, or growth on total assets. Whatever measurement used scholars produced different result Phaswana et al., (2021) found that firm with higher growth disclose more accounting information than firm with lower rate, the result is consistent with Cerbioni and Perbonetti (2007) in contrast Sun et al, (2022) finds that firm with lower growth report more integrated information than firm with higher growth rate similar to findings of Senani et al (2022).

H_{06}: Growth does not have significant impact on integrated reporting

2.7 Board Size and integrated reporting

The size of the board is considered to influence the level of information reported by a firm because a small board deals with a higher load with less diverse expertise, skills, and capabilities. These shortcomings limit the monitoring ability of the board of directors, thus negatively affecting the disclosure of information. In contrast, Karamahmutoğlu and Kuzey (2018) argue that a very large board is generally ineffective compared to smaller boards owing to communication- and coordination-related problems, which can affect the quality and level of information to be reported.

Empirical findings relating to the link between board size and integrated reporting is also inconclusive Cao et al., (2022) found positive significance between board size and integrated reporting while Karamahmutoğlu and Kuzey (2018) found negetive significance. Akhter (2019) finds an insignificant impact.

H_{07}: Board Size does not have significant impact on integrated reporting

2.8`Board independence and integrated reporting

The board of directors is responsible for the affairs of the company, and its success depends on the composition, structure, and authority of the entire board, as well as their working relationships with other stakeholders. Board independence (usually measured as the proportion of non-executive directors to executive directors on a board) indirectly reflects the independence of the board and the monitoring role of non-executive directors.

Non-executive board members have fewer relationships with management, and they may encourage and support more accounting information disclosure. A positive relationship between the board composition and integrated reporting has been empirically proved in the study of Hoang et al (2020) while the study of Karamahmutoğlu and Kuzey (2018) found no relationship between the board composition and integrated reporting.

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H_{08}: Board Independence does not have significant impact on integrated reporting

2.9 Board Gender diversity and integrated reporting

Board members with different characteristics may introduce a wide range of knowledge and skills that foster different perspectives and ideas to boards, the diversity refers to the difference among board members relative to their several features, such as gender, age, race, personalities, learning styles, education, expertise and skills, women are usually have a significance influence on board members and have positively impact on voluntary information (Karamahmutoğlu & Kuzey, 2018)

Meuleman (2021) found a positive association between gender diversity and IR, similar to the findings of Iredele (2019).

H_{09}: Board Gender Diversity does not have significant impact on integrated reporting

METHODOLOGY

The study used quantitative research design and is confined to listed deposit money banks in Nigeria and covers the period of eight years (2014 to 2021), the study used of eight years to have required annual report and because IIRC framework was issued in 2011 the study gave two years grace period for preparation by reporting entities. All the thirteen listed deposit banks are taken as sample, data were generated from annual report and account of the banks for the period under study.

3.1 Dependent Variable

The dependent variable is an integrated reporting index adopted from the study of Sriani and Agustia (2020) which consist of 30 items under eighth headings as shown in (appendix A) and the scoring of the index is 1 if an item is disclose by the company and zero for otherwise the total score for the company is divided by the total number of items (30) in the integrated reporting index (Al Amosh et al, 2022).

3.2 Independent variables

The independent variable consists of five expected derivers of integrated reporting as shown in table one below

Table 1: Independent Variables

Hypotheses	Variable	Measurement	Conception	Expected Sign	Source
H_{01}	Firm Size	Natural logarithm of total assets	FSZ	+	Cao et al (2023)
H_{02}	Firm Age	Year since incorporation	FAG	+	Al Amosh et al (2022)
H_{03}	Profitability	Profit for the year/total assets	PRF	+	Nishitani at al (2021)

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H_{04}	Auditor Type`	Dummy variable 1 for big 4 and 0 for otherwise	ATP	+	Warroun (2019)
H_{05}	Audit Committee Expertise	Ratio of financial expert on the committee	ACE	+	Yahaya and Onyabe(2022)
H_{06}	Growth	Assets Growth rate	GRT	+	Sun et al (2022)
H_{07}	Board Size	Number of Director on the Board	BSZ	+	Marrone (2020),
H_{08}	Board Independence	Proportion of non- executive directors	BIN	+	Hoang et al (2020)
H_{09}	Board Gender Diversity	Proportion of women on the Board	BGD	+	Phaswana at al (2021)

3.3 Techniques of Data Analysis and Model specification

Descriptive statistics, correlation and regression were used as techniques of data analyses and Stata version 13 software was used for the analysis. To measure the impact of independent variable on dependent variable the study used the following regression model adopted with modification from previous studies (Sun et al, 202, Nishitanitu, et al, 2021, Marrone, 2020) among others.

$$IRI_{it} = \beta_0 + \beta_1 FSZ_{it} + \beta_2 FAG_{it} + \beta_3 PRF_{it} + \beta_4 ATP_{it} + \beta_5 ACE_{it} + \beta_6 GRT_{it} + \beta_7 BSZ_{it} + \beta_8 BIN_{it} + \beta_9 BD_{it} + e_{it}$$

Where;

Profitability = Integrated Reporting Index

FSZ = Firm size for bank i in period t.

FAG = Firm age for bank i in period t.

PRF = Profitability for bank i in period t.

IND = Internationality for bank i in period t.

ATP = Auditor type for bank i in period t

ACE= Audit committee for bank i in period t

GRT= Growth for bank i in period t

BSZ = Board Size for bank i in period t

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BIN = Board Independence for bank i in period t

BGD = Board Diversity for bank i in period t

e = error term.
β_1 - β_6 = partial derivatives or the gradient of the independent variable.

RESULTS AND DISCUSSION

The results of the study from three techniques descriptive statistics, correlation and regression were presented and discussed in this section as well as testing of formulated hypotheses.

4.1 Descriptive statistics

Table 2: Descriptive statistics

VARIABLES	OBS	MEAN	STD. DEV.	MIN	MAX
IRI*	104	0.5531731	0.2334763	0	0.87
FSZ	104	9.021954	0.6112678	7.877377	10.06779
FAG	104	49.61538	30.67028	22	127
PRF	104	0.0294544	0.474975	0.09532	0.258437
ATP	104	0.9519231	0.2149648	0	1
ACE	104	0.3230769	0.2563261	0	0.67
GRT	104	0.1148184	0.1883598	-0.96462	0.6789519
BSZ	104	13.57692	3.10243	3	20
BIN	104	0.6160328	0.1153223	0.45161	0.9
BGD	104	0.2362152	0.0901808	0	0.428571

Note: IRI, integrated reporting; FSZ, Firm size; FAG, firm age; PRF, Return on Assets (profitability); ATP, auditor type; ACE, audit committee expertise, GRT; Growth, BSZ; Board Size; BIN; Board Independence, BGD; Board Gender Diversity
*Dependent Variable

Table 2 shows 104 observation for each of the variables implying thirteen sampled banks for eight years period of the study (2014 – 2021). the dependent variable integrated reporting shows an average of 55.32%. The standard deviation of 23.33% signifies less level of dispersion among the banks under study integrated reporting range from 0% to 87%. The average level of inte-grated reporting is low compare to Yahaya and Onyabe (2022) of 75% for all Nigerian listed companies and of Alade and Odugbemi (2022) 70% in the oil and gas industry.

The result of descriptive statistics for the independent variables shows less level of dispersion among the companies except ROA (profitability) and Growth which shows a high level of dispersion among the banks under study.

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4.2 Correlation Results

Table 3: Correlation Result

VARIABLES	IRI	FSZ	FAG	PRF	ATP	ACE	GRT	BSZ	BIN	BGD
IRI* **	1									
FSZ	0.3424**	1								
FAG	0.284**	-0.2066*	1							
PRF	0.0055	-0.3749**	-0.1096	1						
ATP	0.3184**	0.1948*	0.1518	0.2264*	1					
ACE	0.3305**	0.0382	0.3316**	0.1158	0.1384	1				
GRT	0.1784	0.32449**	-0.1841	-0.1712	0.0104	0.0597	1			
BSZ	0.0907	0.6232**	-0.0329	-0.353**	0.0165	0.065	0.1248	1		
BIN	-0.0703	-0.5905**	0.2241*	0.1746	0.0227	0.0194	-0.3465**	-0.4532**	1	
BGD	-0.1114	0.1166	0.0233	0.0477	-0.054	0.107	0.2044	0.0855*	-0.2369**	1

Note: IRI, integrated reporting; FSZ, Firm size; FAG, firm age; PRF, Return on Assets (profitability); ATP, auditor type; ACE, audit committee expertise, GRT; Growth, BSZ; Board Size; BIN; Board Independence, BGD; Board Gender Diversity

***Dependent Variable

**significance at the 1% level.

*Significance at the 5% level.

Table 3: shows the correlation coefficients on the relationship between the variables. The values of the correlation coefficient range from -1 to 1. The sign of the correlation coefficient indicates the direction of the relationship (positive or negative), the absolute value of the correlation coefficient indicates the strength, with larger values indicating stronger relationships. The correlation coefficients on the main diagonal are 1.0, because each variable has a perfect positive linear relationship with itself. the correlation table indicates that correlation between independent variables is generally low which is the correlation thus suggests absence of multicollinearity.

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4.3 Regression Results

The regression results in Appendix B revealed the cumulative of R^2 (0.4259) which is the multiple coefficients of determining the proportion of variation in the dependent variable explained by the independent variables jointly. The R^2 signifies that 42.59% of total variation in integrated reporting of Nigerian deposit money banks is caused by independent variables (Firm Size, Firm Age, Profitability, Auditor Type, Audit Committee Expertise, Growth, Board Size, Board Independence and Board Gender Diversity) While, the remaining changes are as a result of other variables that are not addressed by the model. Similarly, OLS P-Values of 0.0000 and RE and FE P-values of 0.0000 and 0.0000 respectively, in addition Shapiro wilk test and Ramsey test also proved that the model is fit, Therefore, the model is fit and the explanatory variables are properly selected, combined and used. Although both OLS, FE and RE results are shown in Appendix B, the Random effects results are more robust and also more efficient as revealed by hausman specification test and Lagrangian multiplier test for random effects hence, the analyses were done based on the random effects results as presented in table 4 below.

Table 4: Regression Results

IGRI	Coef.	Z	P-Value
FSZ	0.21026	3.72	0.001*
FAG	0.004503	2.58	0.010*
PRF	0.138446	0.27	0.545
ATP	0.297592	3.15	0.046**
ACE	-0.07445	-0.95	0.307
GRT	0.265758	2.25	0.024**
BSZ	-0.00655	-0.81	0.419
BIN	0.243664	1.34	0.181
BGD	-0.47156	-2.19	0.028**
R Square	0.4259		
Adjusted R Square	0.371		
Overall R Square	0.3139		
P-Value	0.0000		
Wald chi2	50.51		

*significance at the 1% level.

**significance at the 5% level.

Table 4 shows that firm size has a positive significant impact on integrated reporting this implies that an increase in size of the company increases the level of integrated reporting this is in line with stakeholder theory and legitimacy theory and also consistent with the findings of Senani et al (2022), Pinto et al (2022), Marrone (2020), Akhter (2019) and in contrast with Cao et al (2023), Nishitani et al (2021), negative significant and Maroun (2019) found insignificant impact.

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Similarly firm age shows a positive significant impact on integrated reporting this is consistent with some previous Studies like Senani at al (2022), Sun et al (2022), Baboukardos and Rimmel (2016) also in support of agency theory and contradict the findings of Al Mosh et al (2022), Oktorina et al (2021), Vitolla et al (2020), Marrone and Oliva (2019) which found insignificant impact.

Also Auditor type has a positive significant impact on integrated reporting the findings is consistent with agency theory which said firms which are externally audited by big four (4) audit companies tend to report more information than companies audited by other firms. Also, consistent with the findings of Maroun (2019) who demonstrated positive significant relation between integrated reporting and type of auditor.

On the other hand profitability has an insignificant impact on integrated reporting this is in line with the findings majority of previous studies like Okorina et al (2021), Phaswana at al (2021), Meuleman (2021), Karamahmutoğlu and Kuzey (2018) and in contrast with Iredele (2019), Marrone (2020), Pinto et al (2022), Alade and Odugbemi (2022) who found positive significant impact between profitability and integrated reporting and Cao et al (2023), Hoang et al (2020) found negative significant impact. The findings also contradict signaling theory which predict positive association. Likewise, audit committee expertise has an insignificant impact of integrated reporting signifying that the present of an expert on the committee does not encourage voluntary integrated reporting this support the findings of Sun et al (2019) and contradict, Ahmed Haji and Anifowose (2016) reported positive impact of audit committee and integrated reporting.

Likewise, growth has a positive significance with integrated reporting, the findings is inline with Phaswana et al., (2021) found that firm with higher growth disclose more voluntary integrated information than firm with lower rate but incontrast with Cerbioni and Perbonetti (2007) in contrast Sun et al, (2022) finds that firm with lower growth report more integrated information than firm with higher growth rate.

Board Size has an insignificant impact on integrated reporting the findings is consistent with Akhter (2019) and contradict Cao et al., (2022) who found positive significance between board size and integrated reporting and Karamahmutoğlu and Kuzey (2018) found negetive significance.

Board independence has a positive insignificance impact on integrated reporting the finding is consistent with of Karamahmutoğlu and Kuzey (2018) who found no association between the board composition and integrated reporting while Hoang et al (2020) found significance impact.

Finally, Board gender diversity has a negative significance impact on integrated reporting the result contradict the finfings of Meuleman (2021) and Iredele (2019) who found positive association significance between gender diversity and integrated reporting.

4.4 Testing of Hypothesis

Table 5 below shows the result of tested hypotheses at 5% level of significance

Table 5: Testing of Hypotheses

Hypotheses	Proposition	P-value	Decision @ 5% Sig.
H_{01}	Firm Size does not have significant impact on integrated reporting	0.0000*	Rejected
H_{02}	Firm age does not have significant impact on integrated reporting	0.0100**	Rejected

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H_{03}	Profitability does not have significant impact on integrated reporting	0.545	Not Rejected
H_{04}	Auditor type does not have significant impact on integrated reporting	0.046**	Rejected
H_{05}	Audit Committee expertise does not have significant impact on integrated reporting	0.307	Not Rejected
H_{06}	Growth does not have significant impact on integrated reporting	0.024**	Rejected
H_{07}	Board Size does not have significant impact on integrated reporting	0.419	Not Rejected
H_{08}	Board Independemce does not have significant impact on integrated reporting	0.181	Not Rejected
H_{09}	Board Gender Diversity does not have significant impact on integrated reporting	0.028**	-Rejected

*significance at the 1% level.

**significance at the 5% level.

SUMMARY, CONCLUSION AND RECOMMENDATION

This study investigates the derivers of voluntary integrated reporting in the Nigerian banking industry. The study utilizes secondary source of data generated from annual report and account of thirteen listed deposit money bank for a period of eight years from 2014 to 2021 the data was analysed using Stata version 13 as descriptive statistics, correlation and regression as a method of data analyzes, the results shows integrated reporting in the industry average at 55% and results of tested formulated hypotheses reveals the derivers as the size of the bank, the number of years the bank has been in operation and its auditors, bank audited by big 4 companies report more integrated elements than firm audited by other firms. Also, the integrated reporting is going with the growth of an entity and the integrated reporting is less when the firm has more women on the board.

Based on the forgoing the study recommended that the Nigerian exchange group should encourage listed companies to adopt integrated reports especially the premium board, Financial Reporting Council (FRC) should provide a framework for voluntary integrated reporting in Nigeria and finally, Central Bank of Nigeria (CBN) is advised to provide support that would ease the voluntary adoption of the IR framework by the Nigerian Deposit Money Banks (DMB).

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APPENDIX A: INTEGRATED REPORTING FRAMEWORK INDEX

1. Organizational overview and operating context	1.1 Reporting boundary
	1.2 Mission and value
	1.3 Business overview
	1.4 Operation context
	1.5 Summary statistics
2. Governance	2.1 Governance structure
	2.2 Governance strategy
	2.3 Organization culture & ethic
	2.4 Remuneration & performance
3. Business model	5.1 Business model description
	5.2 Business model input
	5.3 Business model activities
	5.4 Business model output
	5.5 Business model outcome
	5.6 Stakeholder dependencies
4. Risk and opportunities	4.1 Key risks
	4.2 Key opportunities
5. Strategy and resource allocation	5.1 Link between strategy and resource allocation
	5.2 The competitive advantage
	5.3 Stakeholder engagement to formulate a strategy
6. Performance	6.1 Quantitative indicator of targets, risk, & opportunities
	6.2 Linkage between past & current performance
	6.3 Organization effect on capital
	6.4 Stakeholder relationship
	6.5 Explanation of KPI
7.Outlook	7.1 Explanation of anticipated changes
	7.2 Discussion of potential implications
	7.3. Forecast/projection & related assumptions
8. Basis of preparation and presentation	8.1 Organization's materiality determination process
	8.2 Method to quantify material matters

___ ____ ____ ____ ____ (R)
/__ / ____/ / ____/
___/ / /___/ / /___/ 13.1

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Notes:
      1.  (/v# option or -set maxvar-) 5000 maximum variables

. *(12 variables, 104 observations pasted into data editor)

. summarize igri size age roa auditortype ace growth boardsz boardind gend

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
        igri |       104    .5531731    .2334763         0        .87
        size |       104    9.021954    .6112678   7.877377   10.06779
         age |       104    49.61538    30.67028        22        127
         roa |       104    .0294544    .0474975    -.09532    .258437
 auditortype |       104    .9519231    .2149648         0          1
-------------+--------------------------------------------------------
         ace |       104    .3230769    .2563261         0        .67
      growth |       104    .1321884    .1331056  -.0850687   .6789519
     boardsz |       104    13.57692    3.102433         6         20
    boardind |       104    .6160328    .1153223     .45161         .9
        gend |       104    .2362152    .0901808         0    .428571

. pwcorr igri size age roa auditortype ace growth boardsz boardind gend, obs sig star(5)

             |    igri     size      age      roa audito~e      ace   growth
-------------+------------------------------------------------------------------
        igri |   1.0000
             |
             |     104
             |
        size |   0.3424*  1.0000
             |   0.0004
             |     104      104
             |
         age |   0.2840* -0.2066*  1.0000
             |   0.0035   0.0354
             |     104      104      104
             |
        roa |   0.0055  -0.3749* -0.1096   1.0000
```

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```
             |  0.9554   0.0001   0.2680
             |     104      104      104      104
             |
 auditortype |   0.3184*  0.1948*  0.1518   0.2264*  1.0000
             |  0.0010   0.0476   0.1240   0.0209
             |     104      104      104      104      104
             |
         ace |   0.3305*  0.0382   0.3316*  0.1158   0.1384   1.0000
             |  0.0006   0.7000   0.0006   0.2420   0.1612
             |     104      104      104      104      104      104
             |
      growth |   0.1784   0.3249* -0.1841  -0.1712   0.0104   0.0597   1.0000
             |  0.0701   0.0008   0.0614   0.0823   0.9164   0.5469
             |     104      104      104      104      104      104      104
             |
     boardsz |   0.0907   0.6232* -0.0329  -0.3530* -0.0162   0.0650   0.1248
             |  0.3596   0.0000   0.7399   0.0002   0.8700   0.5120   0.2069
             |     104      104      104      104      104      104      104
             |
    boardind |  -0.0703  -0.5905*  0.2241*  0.1746   0.0227   0.0194  -0.3465*
             |  0.4782   0.0000   0.0222   0.0762   0.8191   0.8449   0.0003
             |     104      104      104      104      104      104      104
             |
        gend |  -0.1114   0.1166   0.0233   0.0477  -0.0540   0.1070   0.2044*
             |  0.2601   0.2384   0.8143   0.6303   0.5862   0.2795   0.0374
             |     104      104      104      104      104      104      104
             |

             |  boardsz boardind     gend
-------------+---------------------------
     boardsz |   1.0000
             |
             |     104
             |
    boardind |  -0.4532*  1.0000
             |  0.0000
             |     104      104
             |
        gend |   0.0855  -0.2369*  1.0000
             |  0.3881   0.0155
             |     104      104      104
             |

. xtset company year
       panel variable:  company (strongly balanced)
        time variable:  year, 2014 to 2021
```

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delta: 1 unit

.
. regress igri size age roa auditortype ace growth boardsz boardind gend

```
      Source |       SS       df       MS              Number of obs =     104
-------------+------------------------------           F(  9,    94) =    7.75
       Model |  2.39147814     9  .265719793            Prob > F      =  0.0000
    Residual |  3.22317473    94  .034289093            R-squared     =  0.4259
-------------+------------------------------           Adj R-squared =  0.3710
       Total |  5.61465286   103  .054511193            Root MSE      =  .18517

------------------------------------------------------------------------------
        igri |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        size |   .2373659   .0500695     4.74   0.000     .1379517    .3367802
         age |   .0028845   .0007208     4.00   0.000     .0014533    .0043156
         roa |   1.020828   .4853107     2.10   0.038     .0572318    1.984423
 auditortype |   .0547571   .0991231     0.55   0.582    -.1420541    .2515684
         ace |   .1572649   .0790531     1.99   0.050     .0003032    .3142266
      growth |   .3002302   .1543476     1.95   0.055    -.0062307    .6066911
     boardsz |  -.0135301   .0079319    -1.71   0.091    -.0292792    .0022189
    boardind |   .1982984   .2109372     0.94   0.350    -.2205223    .6171192
        gend |  -.5561262   .2147821    -2.59   0.011    -.9825811   -.1296712
       _cons |  -1.711228   .4716173    -3.63   0.000    -2.647635    -.774821
------------------------------------------------------------------------------
```

. estat vif

```
    Variable |       VIF       1/VIF
-------------+----------------------
        size |      2.81    0.355393
     boardsz |      1.82    0.549736
    boardind |      1.78    0.562582
         roa |      1.60    0.626523
         age |      1.47    0.681212
 auditortype |      1.36    0.733220
      growth |      1.27    0.788726
         ace |      1.23    0.810766
        gend |      1.13    0.887348
-------------+----------------------
    Mean VIF |      1.61
```

. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

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```
      Ho: Constant variance
      Variables: fitted values of igri

      chi2(1)      =     1.03
      Prob > chi2  =   0.3101

. estat ovtest

Ramsey RESET test using powers of the fitted values of cigr
      Ho:  model has no omitted variables
                F(3, 91) =      2.24
                Prob > F =      0.0886

. swilk igri

                Shapiro-Wilk W test for normal data

   Variable |       Obs       W          V         z       Prob>z
------------+--------------------------------------------------------
       igri |       104    0.98269      1.477     0.867    0.19289
. regress igri size age roa auditortype ace growth boardsz boardind gend, vce(robust)

Linear regression                               Number of obs =     104
                                                F(  9,    94) =   10.97
                                                Prob > F      =  0.0000
                                                R-squared     =  0.4259
                                                Root MSE      =  .18517

------------------------------------------------------------------------------
             |               Robust
       igri |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        size |   .2373659   .0597981     3.97   0.000     .1186353    .3560965
         age |   .0028845   .0006613     4.36   0.000     .0015714    .0041975
         roa |   1.020828   .4884198     2.09   0.039     .0510586    1.990597
  auditortype |   .0547571   .0954415     0.57   0.568    -.1347442    .2442585
         ace |   .1572649   .0801219     1.96   0.053    -.0018191    .3163489
      growth |   .3002302   .1534749     1.96   0.053    -.0044978    .6049582
     boardsz |  -.0135301   .0082851    -1.63   0.106    -.0299804    .0029201
    boardind |   .1982984   .2330199     0.85   0.397     -.264368    .6609649
        gend |  -.5561262   .1819131    -3.06   0.003    -.9173188   -.1949335
       _cons |  -1.711228   .5473105    -3.13   0.002    -2.797926   -.6245304
------------------------------------------------------------------------------

. xtreg igri size age roa auditortype ace growth boardsz boardind gend, re
```

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```
Random-effects GLS regression                   Number of obs      =       104
Group variable: company                         Number of groups   =        13

R-sq:  within  = 0.3597                         Obs per group: min =         8
       between = 0.3141                                        avg =       8.0
       overall = 0.3139                                        max =         8

                                                Wald chi2(9)       =     50.51
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000

------------------------------------------------------------------------------
       igri |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
------------+-----------------------------------------------------------------
       size |   .2109522   .0650985     3.24   0.001     .0833616    .3385429
        age |   .0050594   .0019715     2.57   0.010     .0011952    .0089235
        roa |   .2997201   .4948302     0.61   0.545    -.6701292    1.269569
 auditortype |   .2009513   .1008665     1.99   0.046     .0032566     .398646
        ace |  -.0803086   .0786165    -1.02   0.307    -.2343941    .0737769
     growth |   .2657579   .1180251     2.25   0.024     .0344329    .4970828
    boardsz |  -.0065448   .0080943    -0.81   0.419    -.0224093    .0093198
   boardind |   .2436635   .1819543     1.34   0.181    -.1129603    .6002873
       gend |  -.4715562   .2151543    -2.19   0.028    -.8932508   -.0498616
      _cons |  -1.760212   .5823788    -3.02   0.003    -2.901653   -.6187702
------------+-----------------------------------------------------------------
    sigma_u |  .20920722
    sigma_e |    .114735
        rho |  .76877379   (fraction of variance due to u_i)
------------------------------------------------------------------------------

. estimates store random

. xtreg igri size age roa auditortype ace growth boardsz boardind gend, fe

Fixed-effects (within) regression               Number of obs      =       104
Group variable: company                         Number of groups   =        13

R-sq:  within  = 0.4537                         Obs per group: min =         8
       between = 0.1218                                        avg =       8.0
       overall = 0.1026                                        max =         8

                                                F(9,82)            =      7.57
corr(u_i, Xb)  = -0.9737                        Prob > F           =    0.0000

------------------------------------------------------------------------------
       igri |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
------------+-----------------------------------------------------------------
```

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```
        size |   .0932408   .0775452     1.20   0.233    -.0610213    .2475028
         age |   .0300959   .0066711     4.51   0.000     .0168249    .0433668
         roa |   .0557893   .5002698     0.11   0.911    -.9394068    1.050985
 auditortype |   .2368612   .0999433     2.37   0.020     .0380422    .4356803
         ace |  -.1648291   .0786619    -2.10   0.039    -.3213126   -.0083456
      growth |   .1699392   .1170745     1.45   0.150    -.0629592    .4028377
     boardsz |   .0042081   .0083302     0.51   0.615    -.0123633    .0207795
    boardind |   .3189682   .1804722     1.77   0.081    -.0400484    .6779848
        gend |   -.591459   .2178682    -2.71   0.008    -1.024868   -.1580498
       _cons |  -2.091502   .6306266    -3.32   0.001    -3.34602   -.8369853
-------------+----------------------------------------------------------------
     sigma_u |   .8918684
     sigma_e |    .114735
         rho |  .98371973   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(12, 82) =    13.57                 Prob > F = 0.0000

. estimates store fixed

. hausman fixed random

                 ---- Coefficients ----
          |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
          |     fixed        random       Difference          S.E.
-------------+----------------------------------------------------------------
        size |    .0932408     .2109522       -.1177115        .042136
         age |    .0300959     .0050594        .0250365       .0063731
         roa |    .0557893     .2997201       -.2439308       .0735731
 auditortype |    .2368612     .2009513         .03591              .
         ace |   -.1648291    -.0803086       -.0845205       .0026715
      growth |    .1699392     .2657579       -.0958187              .
     boardsz |    .0042081    -.0065448        .0107528       .0019683
    boardind |    .3189682     .2436635        .0753047              .
        gend |    -.591459    -.4715562       -.1199028        .034281
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

                  chi2(9) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                          =       11.79
                Prob>chi2 =      0.2255
                (V_b-V_B is not positive definite)

. xtreg igri size age roa auditortype ace growth boardsz boardind gend, re
```

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```
Random-effects GLS regression                   Number of obs     =       104
Group variable: company                         Number of groups  =        13

R-sq:  within  = 0.3597                         Obs per group: min =         8
       between = 0.3141                                        avg =       8.0
       overall = 0.3139                                        max =         8

                                                Wald chi2(9)      =     50.51
corr(u_i, X)   = 0 (assumed)                    Prob > chi2       =    0.0000

------------------------------------------------------------------------------
       igri |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
------------+-----------------------------------------------------------------
       size |   .2109522   .0650985     3.24   0.001     .0833616    .3385429
        age |   .0050594   .0019715     2.57   0.010     .0011952    .0089235
        roa |   .2997201   .4948302     0.61   0.545    -.6701292    1.269569
 auditortype |   .2009513   .1008665     1.99   0.046     .0032566     .398646
        ace |  -.0803086   .0786165    -1.02   0.307    -.2343941    .0737769
     growth |   .2657579   .1180251     2.25   0.024     .0344329    .4970828
    boardsz |  -.0065448   .0080943    -0.81   0.419    -.0224093    .0093198
   boardind |   .2436635   .1819543     1.34   0.181    -.1129603    .6002873
       gend |  -.4715562   .2151543    -2.19   0.028    -.8932508   -.0498616
      _cons |  -1.760212   .5823788    -3.02   0.003    -2.901653   -.6187702
------------+-----------------------------------------------------------------
    sigma_u |  .20920722
    sigma_e |    .114735
        rho |  .76877379   (fraction of variance due to u_i)
------------------------------------------------------------------------------

. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

        igri[company,t] = Xb + u[company] + e[company,t]

        Estimated results:
                     |       Var     sd = sqrt(Var)
             ---------+-----------------------------
                igri |   .0545112       .2334763
                   e |   .0131641        .114735
                   u |   .0437677       .2092072

        Test:   Var(u) = 0
                           chibar2(01) =    76.21
                        Prob > chibar2 =   0.0000
```