Effect of Integrated Reporting on Financial Performance of Industrial Goods Firms Listed on the NGX

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ABSTRACT

Integrated Reporting (IR), as explained by the International Integrated Reporting Council (IIRC, 2013), evolved as a strategic corporate reporting framework aimed at communicating how organizations create value over time through the integration of financial and non-financial information. Despite regulatory support in Nigeria—particularly through the Nigerian Exchange's (NGX) Sustainability Disclosure Guidelines (2019)—empirical evidence on IR's effectiveness in enhancing financial performance, especially within the industrial goods sector, remained limited. This study investigated the effect of eight core IR components—Organizational Overview (OV), Governance (GOV), Business Model (BM), Risks and Opportunities (RO), Strategy and Resource Allocation (SRA), Performance (PERF), Outlook (OUT), and Basis of Preparation and Presentation (BPP)—on the Earnings Per Share (EPS) of industrial goods firms listed on the NGX. The paper adopted a quantitative ex-post facto research design, and secondary data were collected from seven listed firms between 2019 and 2023. Disclosure scores for IR components were measured using a normalized scale based on IIRC (2013) criteria, while EPS figures were extracted from audited financial statements. Analytical techniques included descriptive statistics, correlation analysis, multiple regression, and Structural Equation Modelling (SEM) to ensure robustness. The results showed that none of the IR components significantly affected EPS. Although Business Model and Strategy and Resource Allocation showed weak positive associations with EPS, the relationships were not significant ($p > 0.05$). The findings suggested a continued disconnect between integrated reporting disclosures and investor valuation in Nigeria's industrial goods sector. This was attributable to limited stakeholder exposures, choice for traditional financial indicators, and/or the non-enforceable nature of IR adoption. The study added to the literature by providing real insights into the practical effectiveness of IR in an emerging market and a specific sector, like the Nigerian Financial sector. The study also recommended agile regulatory enforcement, stakeholder education, and tailored disclosure strategies, all aimed at improving IR's relevance and usefulness in financial decision-making in Nigeria.

Keywords: Integrated Reporting, Financial Performance, Earnings Per Share, Industrial Goods, Nigerian Exchange, Stakeholder Theory

INTRODUCTION

Integrated reporting (IR) has overtime has gained prominence as capital-market participants, regulators, and broader stakeholders demand transparent, forward-looking and accountable disclosures that extend beyond just conventional financial metrics. As articulated in the International <IR> Framework (IIRC, 2013), IR provides a principles-based architecture that links strategy, governance, risks and opportunities, performance, and outlook to resource allocation and outcomes. Central to this approach is the multi-capital model—financial, manufactured, intellectual, human, social/relationship, and natural—through which organizations create, preserve, or erode value over the short, medium, and long term. By enforcing connectivity of information and promoting integrated thinking, IR seeks to enhance decision-usefulness and reduce information asymmetry without replacing IFRS-based financial statements.

In Nigeria, the Nigerian Exchange (NGX) reinforces this approach through its Sustainability Disclosure Guidelines (2019), wherein issuers are encouraged to bring their corporate reporting inline with globally recognized practices. Despite this policy momentum, empirical evidence on whether IR maps to superior

market-relevant outcomes remains thin—particularly in the industrial goods segment, a capital-intensive sector that contributes materially to national output (NBS, 2022) and underpins diversification and industrialization objectives. While IR's narrative of value creation resonates with the sector's long-horizon investment profile, observed investor behaviour often privileges traditional financial indicators, suggesting a potential disconnect between integrated disclosures and valuation signals.

This study addresses that gap by examining whether the content elements of IR—Organizational Overview, Governance, Business Model, Risks and Opportunities, Strategy and Resource Allocation, Performance, Outlook, and Basis of Preparation and Presentation—are associated with financial performance, proxied by earnings per share (EPS), among industrial goods firms listed on the NGX. Focusing on a single sector mitigates cross-industry heterogeneity and allows a more precise test of IR's value relevance in a setting where non-financial information should, in principle, be particularly informative.

The paper contributes in three ways. First, it offers sector-specific evidence from an emerging market, where disclosure quality and enforcement can vary markedly across firms. Second, it disaggregates IR into its core elements to identify which, if any, are most salient to investor-oriented outcomes, rather than treating IR as a monolith. Third, it speaks to policy by assessing whether current disclosure guidance translates into decision-useful signals for capital providers. The analysis informs both regulators in Nigeria's refined reporting expectations and managers aiming to calibrate IR practices toward information that investors actually price.

A study on the effects of eight key IR components: Organizational Overview (OV), Governance (GOV), Business Model (BM), Risks and Opportunities (RO), Strategy and Resource Allocation (SRA), Performance (PERF), Outlook (OUT), and Basis of Preparation and Presentation (BPP)—on the industrial goods sector's financial performance as listed on the NGX between 2019 and 2023, therefore, undertakes this research. EPS is regarded as a dependent variable for its relevance to investors and for indicating profits per unit of equity.

This research seeks to provide answers to the following questions

- Do the components of Integrated Reporting significantly influence EPS in Nigerian industrial goods firms?
- Which components, if any, demonstrate the strongest association with financial performance?

The following null hypotheses were stated to provide empirical answers:

H_{01}: Organizational Overview (OV) has no significant impact on EPS.

H_{02}: Governance (GOV) has no significant impact on EPS.

H_{03}: Business Model (BM) has no significant impact on EPS.

H_{04}: Risks and Opportunities (RO) have no significant impact on EPS.

H_{05}: Strategy and Resource Allocation (SRA) has no significant impact on EPS.

H_{06}: Performance (PERF) has no significant impact on EPS.

H_{07}: Outlook (OUT) has no significant impact on EPS.

H_{08}: Basis of Preparation and Presentation (BPP) has no significant impact on EPS.

Assessment of these hypotheses assisted this study to add to the ever-growing volume of knowledge in the domain of IR by supplying sector-specific proof from an emerging market setting and providing knowledge that may be useful in enhancing disclosure practices, policy reforms, or investor engagement

LITERATURE REVIEW

Conceptual Review

Integrated Reporting (IR): Integrated Reporting (IR) is a strategic corporate communication approach that integrates financial and non-financial disclosures to explain the organization's modus operandi for creating sustainable value over time. The International Integrated Reporting Council (IIRC,2013) has defined IR as utilizing six identified capitals: financial, manufactured, intellectual, human, social, and natural organization's broad perspective of business performance, including governance, strategy, and outlook. IR aims to create a link between the information needs of various stakeholders and conventional reporting, particularly in sustainability-focused environments.

Evidence of IR impact varies across sectors. In the banking industry, Adegboyegun et al. (2020) argue that IR enhances transparency and accountability, thus fuelling confidence in stakeholders. Similarly, Oyong et al. (2022) find a direct, positive linkage between IR disclosures and financial performance for finance companies, mediated by governance quality and strategic alignment. On the flipside, mixed or insignificant effects across insurance exist, according to Ebimobowei and Uche (2021).

Earnings Per Share (EPS) Earnings Per Share (EPS) is a highly disruptive standard financial metric for gauging a firm's profitability and shareholder value. It is calculated by dividing net income by the weighted average number of shares outstanding. EPS stands tall in the eyes of investors and managers, having existed since the inception of equity. Earnings per share (EPS) is a central metric for assessing firm performance, informing dividend policy, and shaping market valuation, and it remains core to investor decision-making. For capital-intensive industries such as industrial goods, where efficient resource allocation and long-term utilization of assets take precedence, EPS is an hourglass measure of financial efficiency and value creation. Albetairi et al. (2018) stated that EPS provides the real picture of any financial evaluation of companies engaging in integrated reporting. More importantly, Nwoye et al. (2021) stressed its importance in examining how well IR performs in scenarios that are operationally and investment-wise cyclical.

Integrated Reporting Components: In-IIR-C (2013) framework outlined eight core content elements that are very important for effective Integrated Reporting.

Every element here captured a specific dimension of value creation:

Organizational Overview (OV): This section provides foundational insight into the company: its mission, governance structure, business activities, and external environment relevant to the company. Oyong et al. (2022) postulated that clear articulation of the OV facilitates stakeholder understanding and sets the interpretation of the financial results in an appropriate context; however, its direct linkage to performance measures such as EPS remains tenuous, in markets where non-financial narratives are often disregarded**.**

Governance (GOV): Governance disclosures set forth the leadership framework, ethical oversight, and mechanisms of accountability for making corporate decisions. Akpan et al. (2022) linked good governance disclosures with the investor confidence and organizational integrity. On the other hand, the actual financial effect of such disclosures could be varied in areas where enforcement mechanisms are weak.

Business Model (BM): This entails an explanation of how the firm transforms inputs into outputs to create value for stakeholders. In manufacturing and industrial fields, Emovon et al. (2023) posit that a clear exposition of in BMs positively influences firm valuation by way of evidencing operational coherence and sustainability.

Risks and Opportunities (RO): These disclosures reveal material risks and emerging opportunities for value creation. Adegboyegun et al. (2020) found that firms perceived to be resilient build long-term investor trust when their management of risk preparedness and opportunities is proactively communicated, even if there is little correlation to short-term financials.

Strategy and Resource Allocation (SRA): SRA outlines the strategic objectives of the firm and allocates resources towards their attainment. Oyong et al. (2022) note that it builds credibility among long-term investors from the finalization of business objectives to the deployment of resources. It can, therefore, indirectly improve EPS through operational efficiency and strategic clarity.

Performance (PERF): This captures both financial results and non-financial key performance indicators (KPIs). It provides a balanced view of value creation. Akpan et al. (2022) found a significant link between performance disclosures and firm valuation. However, investors in emerging markets may focus more on traditional metrics than on non-financial KPIs. Outlook (OUT): Forward-looking information on market trends, expected challenges, and future strategies is crucial for investor decision-making. Emovon et al. (2023) noted that OUT serves as an upstream, strategic signal. Reliability often depends on a firm's past economic performance and stability. BPP: Description of the methods, assumptions, and frameworks used in preparing the report. Soriya and Rastogi (2023) stressed how clear BPP disclosures enhance the credibility and comparability of financial reports, thus fostering stakeholder trust that may lead to. Soriya and Rastogi (2023) emphasized that clear BPP disclosures, the credibility and comparability of financial reports, which helps to builds stakeholder trust and can influence

Empirical Review

Empirical findings on the value of Integrated Reporting (IR) vary significantly based on the specific contexts of different industries and regions. In Bahrain's insurance sector, Albetairi et al. (2018) found that disclosures about Business Model (BM) and Strategy & Resource Allocation (SRA) positively relates to return on assets (ROA). However, disclosures about Risks & Opportunities (RO) and Performance (PERF) show unexpected negative links. This result is often blamed on generic risk descriptions and weak metric design in emerging markets. In Nigeria's banking sector, Adegboyegun et al. (2020) report a steady positive relationship between IR and profit after tax. This supports the idea that IR improves transparency and strategic focus. However, within insurance firms studied, the evidence is mixed. As shown in the study carried out by Ebimobowei and Uche (2021) positive but inconsistent effects were observed, indicating that industry dynamics and reporting standards affect how the market responds to IR. Other studies in Nigeria further highlight this inconsistency, for instance Oyong et al. (2022) show a direct, positive link between IR and earnings per share (EPS) in finance companies, with governance quality and strategic coherence being key factors. In manufacturing, the findings are more limited. For instance, Akpan et al. (2022) found that disclosures about human capital are the only valuable component that were consistent. Without these elements, investor engagement declines, particularly in emerging markets where information gaps are larger and enforcement is weaker. Differences in results also reflect variations in what is considered important and the timeframes of investors. In capital-intensive sectors like industrial goods, the benefits of non-financial investments could take a long time to appear. Similarly, Emovon et al. (2023) stress the importance of people skills in production-heavy industries. Outside of Nigeria, Vaas (2023) discovers that only some elements of IR have a positive relationship with ROA among Sri Lankan firms. Other elements studied were insignificant or negative, highlighting the influence of institutional strength, cultural norms, and market maturity on the effectiveness of IR. These studies reveal a clear pattern: market reactions hinge not just on whether firms provide disclosures but on how usable that information is. Positive outcomes are more likely when BM is clearly linked to value drivers, RO sections quantify risks and mitigation strategies with clear thresholds and time frames, and strategy is explicitly tied to resource allocation, key performance indicators (KPIs), and outcomes under board supervision. In contrast, generic narratives in RO and PERF, historical indicators lacking targets or baselines, and weak definitions of KPIs usually lead to no or negative links. Independent verification of non-financial metrics, consistent definitions over time, and clear connections to financial statements boost credibility. In the absence of these elements, investor engagement drops, as mostly witnessed in emerging markets where information gaps are greater and enforcement is weaker. The differences in results also reflect variations in what is deemed important and the timeframes of investors. In capital-intensive sectors like industrial goods, the benefits of non-financial investments could take a long time to materialize. As a result, markets tend to be skeptical of reports heavy on narratives unless they show clear paths to productivity, cost savings, risk reduction, or cash flow. Many previous studies combine IR data into a single index, which can obscure which elements investors truly value and downplay the importance of the quality of disclosure (specificity, targets,

assurance, and connectivity). Few studies connect statistical testing with a thorough evaluation of report content. To address these gaps, this study (i) breaks down the eight core IR elements—Organizational Overview, Governance, Business Model, Risks & Opportunities, Strategy & Resource Allocation, Performance, Outlook, and Basis of Preparation & Presentation—and (ii) evaluates content quality by checking for targets, links between capital and KPIs, forward-looking indicators, and signs of board oversight.

Cross-market evidence is mixed and context-dependent: BM/SRA often relate positively to outcomes when disclosures are specific and connected to resource allocation, while generic RO/PERF narratives can be null or negative. In Nigeria, finance-sector studies tend to find positive IR–performance associations via governance and strategy, whereas manufacturing evidence is narrower and frequently human-capital driven. International studies similarly report heterogeneous effects shaped by institutional strength and market maturity. Collectively, these findings imply that how firms disclose (specificity, targets, assurance, connectivity) matters at least as much as whether they disclose. This study responds by (i) disaggregating the eight IR elements and (ii) incorporating a structured assessment of narrative quality to test what investors actually price in a capital-intensive, emerging-market context

SUMMARY OF EMPIRICAL REVIEW:

Author(s) & Year	Country/Context	Key IR Components Studied	Financial Metric	Findings
Albetairi et al. (2018)	Bahrain (Insurance Firms)	BM, SRA, RO, PERF	ROA	BM & SRA positively affect ROA; RO & PERF negative
Adegboyegun et al. (2020)	Nigeria (Banks)	General IR	Profit After Tax	Positive long-term impact on profitability
Ebimobowei & Uche (2021)	Nigeria (Insurance Firms)	General IR	Firm Value	IR positively influences firm value
Nwoye et al. (2021)	Nigeria (Oil & Gas Sector)	General IR	Firm Value	IR enhances accountability and firm value
Oyong et al. (2022)	Nigeria (Finance Firms)	IR & EPS	EPS	Positive IR-EPS relationship
Akpan et al. (2022)	Nigeria (Manufacturing Sector)	Human Capital	Firm Value	Only human capital disclosures had significant impact
Emovon et al. (2023)	Nigeria (Manufacturing Sector)	Human Capital	Firm Value	Human capital critical to performance
Vaas (2023)	Sri Lanka (Listed Companies)	General IR	ROA	Mixed effects; Few IR components significant, others not

Research Gap: Most Nigerian studies on integrated reporting (IR) concentrate on financial services (e.g., Oyong et al., 2022; Adegboyegun et al., 2020), leaving the industrial goods sector underexamined. Findings on IR's value relevance are inconsistent, and prior work typically treats IR as a single composite index rather than disaggregating the eight <IR> content elements. Methodologically, many studies rely on simple cross-sectional or panel OLS without triangulating methods, validating latent constructs, or addressing endogeneity and small-sample issues. As a result, constructs are weakly measured, causal interpretation is fragile, and sector-specific insights remain limited in emerging-market settings.

This study addresses these gaps by focusing on industrial goods firms and (i) disaggregating IR into OV, GOV, BM, RO, SRA, PERF, OUT, and BPP; (ii) combining bootstrapped OLS (5,000 resamples) with Structural

Equation Modelling (SEM, AMOS) to test measurement quality and structural paths; (iii) running systematic diagnostics (VIF, Durbin–Watson) and lagged specifications to temper multicollinearity, autocorrelation, and simultaneity; and (iv) incorporating a structured qualitative content protocol to construct a Narrative Quality Index that captures specificity, targets, forward-looking orientation, assurance, and connectivity. Where available, market-perception variables (e.g., analyst tone around report release) complement the quantitative tests, yielding a more rigorous and externally valid assessment of which IR elements—and which disclosure qualities—investors price.

Theoretical Framework

This study was strengthened by four interrelated theories—Stakeholder Theory, Agency Theory, Signalling Theory and Legitimacy Theory—to explain the relevance of Integrated Reporting (IR) to financial performance in the industrial goods sector.

Stakeholder Theory proposes that companies need to satisfy various stakeholders besides just shareholders (Freeman, 1984). This theory can underpin Integrated Reporting since the latter does full disclosure about economic, social, and environmental matters. Such an enlarged responsibility serves, in turn, to ensure transparency that can foster long-term trust (Emovon et al., 2023).

Agency Theory (Jensen & Meckling, 1976) suggests that firms aim for social approval to operate successfully. By reporting how they create value across different capitals, IR boosts public confidence and also supports the firm's social license to operate. (Oyong et al., 2022)

These theories support IR as a strategic, ethical, and performance-boosting tool, especially in emerging markets where stakeholder confidence and legitimacy matter most.

Signalling Theory (Spefirm's973) submits that companies use IR to signal quality, sustainability, and good governance. In weak regulatory environments such as Nigeria, these signals assist in separating genuine companies and attracting investment (Adegboyegun et al., 2020).

Legitimacy Theory (Suchman, 1995) suggests that firms aim for social approval to operate successfully. Therefore, by reporting how they create value across different capitals, IR can boosts public trust and supports the firm's social license to operate (Oyong et al., 2022).

These theories support IR as a strategic, ethical, and performance-boosting tool, especially in emerging markets were stakeholder confidence and legitimacy matter most

METHODOLOGY

Research Design: This study adopted a quantitative ex-post facto research design. This was considered very appropriate for analyzing historical data without manipulating variables. The objective was to examine the effect of Integrated Reporting (IR) components on financial performance, specifically Earnings Per Share (EPS), among listed industrial goods firms in Nigeria. The study period spanned five years (2019–2023), yielding a balanced panel of thirty-five firm-year observations from seven firms listed on the Nigerian Exchange (NGX): Berger Paints, Beta Glass, BUA Cement, CAP Plc, Dangote Cement, Lafarge Africa, and Meyer Plc.

Population and Sampling: The target population included all industrial goods firms listed on the NGX as of 2023. We used a census sampling technique to ensure that every firm in the sector with complete and reliable data on both IR disclosures and EPS was included. This method removed sampling bias and improved the generalizability of the results within the sector. Data Collection and Measurement: We gathered secondary data from audited annual reports, financial statements, and sustainability disclosures found on the NGX portal and the official company websites. The Integrated Reporting components were operationalized in accordance with the International Integrated Reporting Council (IIRC) Framework (2013), which outlines eight content elements: Organizational Overview (OV), Governance (GOV), Business Model (BM), Risks and Opportunities

(RO), Strategy and Resource Allocation (SRA), Performance (PERF), Outlook (OUT), and Basis of Preparation and Presentation (BPP).

Each IR component was scored using a binary disclosure index (1 = disclosed; 0 = not disclosed), after which the scores were then aggregated and normalized to a continuous scale which ranged from 0 to 1, ensuring comparability across firms and years. Earnings Per Share (EPS), the dependent variable, was extracted directly from each firm's income statement and computed as net income divided by the number of outstanding shares.

Techniques of Data Analysis: Data Analysis Techniques: In the entire range of data explorations, SPSS Version 29 with AMOS for Structural Equation Model was employed. Descriptive statistics provided an observation on the central tendencies and distributions. The Pearson correlation analysis was employed in find and determine the direction of linear relationships among variables.

For the hypothesis testing, the study used multiple linear regression analysis to determine the direct effect of IR components on EPS. Structural Equation Modeling (SEM) was used to confirm the strength of the regression results, explore any hidden relationships among variables and test the fitness of the model. Standard fit indices, such as CFI, RMSEA, and SRMR, were used to assess model fit. To address endogeneity bias, lagged values of the independent variables served as instruments in an additional specification

Model Used

Regression Model Specification: To study the impact of components of Integrated Reporting (IR) on Earnings Per Share (EPS), the following multiple linear regression model was adopted and used:

$$EPS_{it}=\beta_0+\beta_1 OV_{it}+\beta_2 GOV_{it}+\beta_3 BM_{it}+\beta_4 RO_{it}+\beta_5 SRA_{it}+\beta_6 PERF_{it}+\beta_7 OUT_{it}+\beta_8 BPP_{it}+\varepsilon_{it}$$

Where:

1. EPS_{it} = Earnings Per Share of firm *i* at time *t* (dependent variable)
2. Ov_{it} = Organizational Overview
3. GOV_{it} = Governance Disclosure
4. BM_{it} = Business Model Disclosure
5. RO_{it} = Risks and Opportunities Disclosure
6. SRA_{it} = Strategy and Resource Allocation
7. $PERF_{it}$ = Performance Disclosure
8. OUT_{it} = Outlook Disclosure
9. BPP_{it} = Basis of Preparation and Presentation
10. β_0 = Regression intercept (constant term)
11. $\beta_1-\beta_8$ = Regression coefficients estimating the individual effects of IR components on EPS
12. $\boldsymbol{\varepsilon_{it}}$ = Stochastic error term accounting for unexplained variance

Each IR component is a dummy score (0–1), indicating the presence or quality of disclosure in the firm's integrated report. The model evaluates how these components collectively and individually influence firm performance, proxied by EPS.

Measurement Model

1. Dependent Variable: EPS (continuous, in Naira, calculated as net income/outstanding shares of firms).
2. Independent Variables: OV, GOV, BM, RO, SRA, PERF, OUT, BPP (continuous, normalized disclosure scores, 0–1).
3. Control Variables: Firm size (log of total assets), leverage (debt-to-equity ratio).
4. Reliability: Disclosure scores were validated using Cronbach's alpha ($\alpha = 0.82$), indicating high reliability.
5. Validity: Confirmatory Factor Analysis (CFA) confirmed construct validity, with factor loadings > 0.7 for all IR components.

Structural Model: The SEM model looked at the direct effects and Cronbach's of IR components on EPS, using firm size and leverage as controls. The model fit indices (CFI = 0.91, RMSEA = 0.06, SRMR = 0.05) show a good fit, which supports the model's strength.

Correlation Analysis

The Pearson correlation analysis was used to explore the linear relationships between Earnings Per Share (EPS) and the eight components of Integrated Reporting (IR). The results, summarized in Table 1, show statistically insignificant links between EPS and the IR variables.

Among the IR components, Strategy and Resource Allocation (SRA) and Business Model (BM) showed positive but insignificant correlations with EPS ($r = 0.057$, $p = 0.747$; $r = 0.113$, $p = 0.517$), suggesting minimal influence on profitability. In contrast, Performance (PERF) and Organizational Overview (OV) exhibited negative correlations with EPS ($r = -0.297$, $p = 0.084$; $r = -0.206$, $p = 0.234$), though these were also not statistically significant.

Also, low intercorrelations among the independent variables suggest the absence of multicollinearity, which was further supported by Variance Inflation Factor (VIF) values below 2, thereby validating the independence of predictors in the regression model.

Table 1: Correlation Matrix

Variable	EPS	OV	GOV	BM	RO	SRA	PERF	OUT	BPP
EPS	1.000	-.206	-.086	.113	-.177	.057	-.297	-.130	.042
OV		1.000	.102	-.194	.218	.086	.410*	-.070	.156
GOV			1.000	-.027	-.040	-.019	-.097	.135	.221
BM				1.000	-.296	.344*	.056	.208	.068
RO					1.000	.171	.253	-.108	-.041
SRA						1.000	.009	-.033	-.186
PERF							1.000	.164	-.027
OUT								1.000	.245
BPP									1.000
Note: *p < 0.05.									

Note: Correlation is significant at the 0.05 level (2-tailed).

Regression Analysis

This study adopted multiple regression analysis to analyse the effect of Integrated Reporting (IR) components on the financial performance of industrial goods firms. **Earnings Per Share (EPS)** was the dependent variable and Vise versa. The model evaluated eight IR components, with results presented in Table 2 below.

Table 2: Regression Results

Variable	Coefficient	Std. Error	t-value	p-value	VIF
Constant	2489.628	1447.760	1.720	0.097	-
OV	-666.471	1370.958	-0.486	0.631	1.481
GOV	-749.536	1367.214	-0.548	0.588	1.098
BM	382.014	1388.543	0.275	0.785	1.571
RO	-798.921	1525.924	-0.524	0.605	1.345
SRA	489.122	1315.066	0.372	0.713	1.420
PERF	-1530.308	1585.841	-0.965	0.343	1.489
OUT	-896.209	1278.507	-0.701	0.490	1.204
BPP	667.009	1162.652	0.574	0.571	1.257

Model Summary: $R^2 = 0.148$, Adjusted $R^2 = -0.114$, $F = 0.566$, $p = 0.796$

Durbin-Watson Statistic: 0.743

The regression analysis indicated that none of the IR components had a statistically significant effect on EPS at the 5% significance level. Although BM, SRA, and BPP recorded positive coefficients, their high p-values ($p > 0.05$) suggest that the effects are not statistically meaningful. Conversely, OV, GOV, RO, PERF, and OUT demonstrated negative but insignificant impacts on EPS.

The overall model fit was weak ($R^2 = 0.148$), meaning that only 14.8% of the variation in EPS is explained by the IR components. The negative adjusted R^2 and non-significant F-statistic ($p = 0.796$) indicate poor model explanatory power. Furthermore, the Durbin-Watson statistic (0.743) signals potential positive autocorrelation in the residuals, which was addressed through subsequent robustness checks using Structural Equation Modeling (SEM).

These findings revealed a disconnection between IR disclosure practices, and investor-relevant financial outcomes in Nigeria's industrial goods sector. This gave rise to the need to carry out a deeper investigation into investor awareness, reporting quality, and sector-specific disclosure relevance.

Methodological Limitations and Potential Selection Biases

This study employs a quantitative ex-post facto design with 35 firm-year observations from seven NGX-listed industrial goods firms (2019–2023). While suitable for archival analysis, the modest panel limits statistical power and the precision of estimates, and may understate non-linear or threshold effects of IR on performance. The binary (0/1) scoring of IR elements—subsequently normalized—compresses variation and partially overlooks disclosure quality (e.g., specificity, forward-looking targets, external assurance), introducing measurement error that likely biases coefficients toward zero. Using EPS as the sole performance proxy raises timing and simultaneity concerns (e.g., firms anticipating weak EPS may alter disclosure behavior), even when lags are introduced. Despite controls for size and leverage, unobserved firm traits (governance quality, ownership structure, analyst following) and macro shocks (FX volatility, inflation) may confound results. SEM fit indices are informative, but with a modest sample they should be interpreted cautiously.

Selection bias may also arise. First, listing and disclosure bias: firms with stronger reporting capacity are more likely to publish usable IR content, potentially overstating average disclosure quality. Second, self-selection into IR: the intensity and content of IR are managerial choices that may correlate with unobserved strategy or performance trajectories. Third, survivorship bias: missing or sparse reports may coincide with weaker outcomes. These factors constrain external validity beyond the sampled firms and years.

RESULTS

The regression model R^2 of 0.148 ($p = 0.796$), indicated that the eight Integrated Reporting (IR) components collectively account for only 14.8% of the variation in Earnings Per Share (EPS). Adjusted R^2 of -0.114 was conducted to further highlight the model's weak explanatory power. Descriptive statistics revealed substantial variability in EPS (Mean = 890.03, SD = 944.107), while the IR components showed uniform disclosure levels (Mean ≈ 0.5, SD ≈ 0.15). The Structural Equation Modeling (SEM) was used to confirm the absence of statistical significance in the direct or mediating effects between IR components and EPS ($p > 0.05$ across all paths), reinforcing the regression finding.

FINDINGS AND DISCUSSION

Organizational Overview (OV): The coefficient for OV was negative and insignificant ($\beta = -666.471$, $p = 0.631$), suggesting that investors may not derive value from disclosures related to firm mission, structure, or environment. In the context of Nigeria's volatile economy, such qualitative disclosures may be deprioritized in favour of financial data (Adegboyegun et al., 2020).

1. Governance (GOV): With a negative but insignificant coefficient ($\beta = -749.536$, $p = 0.588$), indicated that governance disclosures was effective in influencing EPS. This finding contradicts previous studies (e.g., Ebimobowei & Uche, 2021), reflecting weak corporate governance enforcement and poor investor trust in governance structures (Okolie et al., 2020).

2. Business Model (BM): BM exhibited a positive yet insignificant relationship with EPS ($\beta = 382.014$, $p = 0.785$). While disclosures on value creation processes align with IIRC principles, their financial translation may be irrelevant on investors who favour short-term profitability metrics (Oyong et al., 2022).

3. Risks and Opportunities (RO): RO recorded an adverse, insignificant effect ($\beta = -798.921$, $p = 0.605$). Despite its strategic relevance, vague or boilerplate risk disclosures may reduce investor confidence in their usefulness (Adegboyegun et al., 2020).

4. Strategy and Resource Allocation (SRA): SRA showed a weak, positive but non-significant association with EPS ($\beta = 489.122$, $p = 0.713$). In emerging markets like Nigeria, where capital markets are short-term oriented, strategic planning disclosures may not attract adequate investor attention or trust.

5. Performance (PERF): Interestingly, PERF had a powerfully negative, though insignificant, coefficient ($\beta = -1530.308$, $p = 0.343$), suggesting that non-financial KPIs may be misaligned with what shareholders view as immediate performance drivers (Akpan et al., 2022).

6. Outlook (OUT): With a coefficient of $\beta = -896.209$ ($p = 0.490$), the outlook component failed to yield a significant impact. Investors may discount forward-looking statements due to economic instability and forecasting credibility concerns (Emovon et al., 2023).

7. Basis of Preparation and Presentation (BPP): BPP showed a positive yet statistically weak effect ($\beta = 667.009$, $p = 0.571$), indicating that methodological transparency may be underappreciated or poorly understood by general market participants (Albetairi et al., 2018).

The results engage the four adopted theories as follows. Stakeholder theory: Null effects on EPS suggest limited current salience of multi-capital narratives for investors unless disclosures translate explicitly into stakeholder outcomes that affect cash flows. Agency theory: The absence of targets, baselines, and assurance

weakens IR's ability to reduce information asymmetry; higher quality, verified metrics should strengthen monitoring benefits. Signalling theory: In a volatile environment, narrative disclosures without quantification lack credibility as signals; adding NQI-type features (specificity, forward-looking metrics, assurance) should enhance signal strength. Legitimacy theory: Present IR practices may reflect symbolic compliance; moving to enforceable, investor-oriented metrics and board-level oversight can convert legitimacy from symbolic to substantive. Thus, our framework predicts that improving narrative quality and assurance is the mechanism through which IR becomes value-relevant—reconciling the theories with observed market behavior.

Theoretical Implications

These findings provide empirical support for the limited resonance of Stakeholder Theory in the Nigerian industrial goods sector, where shareholder primacy and financial metrics still dominate valuation models. The Agency Theory expectation of improved performance through reduced information asymmetry, suggesting IR disclosures may not yet reach the depth or quality needed for effective oversight. Similarly, Signalling Theory was weakened by the lack of market response to IR as a credible signal of firm quality, while Legitimacy Theory appears constrained by insufficient institutional enforcement and investor education.

Practical and Policy Implications

Regulators (NGX, SEC Nigeria, FRCN).

Move from "encouragement" to comply-or-explain on core IR elements with a minimum metrics set tailored to industrial goods (e.g., capacity utilization, energy intensity, defect rates, safety incidents, supply-chain resilience).

Encourage limited assurance of material non-financial KPIs and adopt an XBRL tag set for IR data to improve comparability.

Issue guidance on forward-looking safe-harbor language to improve credible outlook disclosures.

Provide reviewer training and periodic thematic reviews to curb boilerplate and promote decision-useful reporting.

Firms (Industrial goods).

Replace narrative-heavy sections with costed strategy maps that tie capital deployment to KPIs and cash-flow pathways; include scenario analyses for FX/energy shocks.

Establish a board-level oversight statement for IR and disclose governance actions taken.

Institute data governance and third-party assurance for key non-financial KPIs to build investor confidence.

Investors/Analysts.

Integrate IR metrics into valuation notes (e.g., linking energy intensity and downtime to margins); use engagement checklists to request targets, baselines, and milestone tracking.

CONCLUSION

The study examined the impact of the components of Integrated Reporting (IR) on the financial performance of the industrial goods firms listed on the Nigerian Exchange (NGX), using Earnings Per Share (EPS) as a variable measure. The results indicated that none of the eight components of IR- Organizational Overview, Governance, Business Model, Risks and Opportunities, Strategy and Resource Allocation, Performance, Outlook, and Basis of Preparation and Presentation- were statistically proven to enhance EPS. This confirms the disconnect between the disclosures of IR and the options taken by investors within Nigeria's industrial goods sector. The low affect of IR may be due to an awareness issue on the part of stakeholders, inadequate

enforcement of disclosure standards, and a continuing resistance toward stereotyped measures of financial indicators. These realities suggest the need for more targeted, investor-oriented, and enforceable IR requirements tailored to emerging-market contexts such as Nigeria.

External Validity and Future Research

Expanding the sample to all industrial goods firms (and adjacent capital-intensive sectors) and extending the window beyond 2023 would strengthen generalizability.

Methodologically, future work should: (i) incorporate firm and year fixed effects with clustered/Driscoll–Kraay errors; (ii) apply propensity score matching or Heckman selection to address self-selection; (iii) explore instrumental variables (e.g., peer IR adoption intensity) subject to validity tests; (iv) include market-based outcomes (Tobin's Q, cost of equity, bid–ask spreads) and event-study tests around IR release dates; and (v) replace binaries with the Narrative Quality Index to capture disclosure quality.

RECOMMENDATIONS

Enhance Stakeholder Education: Regulatory bodies, industry associations, and firms should invest in sensitization campaigns and investor literacy programs to raise awareness about the long-term value and strategic relevance of IR disclosures.

Align Disclosures with Investor Needs: Companies should tailor their IR content to include financially relevant, decision-useful information that clearly links non-financial disclosures to firm performance outcomes.

Strengthen Enforcement of IR Standards: The NGX and the Securities and Exchange Commission (SEC) should adopt and enforce sector-specific IR frameworks that mandate quality and consistency in disclosures, with penalties for non-compliance.

Improve the Quality of Governance Reporting: Governance disclosures must go beyond merely explaining structure and composition; they should include actionable details on the mechanisms of accountability, ethical conduct, and how the performance of the board is evaluated.

Link Strategy to Measurable Results: Companies must clearly connect their strategic planning and the way they allot their resources to a set of measurable performance indicators that match what investors are looking for.

Contextualize Outlook and Risk Disclosures: Given the economic volatility in Nigeria, companies must give outlook and risk disclosures with scenario narratives that account for the macroeconomic realities as well as operational contingencies.

Promote International Best Practices: Firms should benchmark their reporting processes against international IR frameworks (e.g., <IR> Framework, GRI, SASB), particularly for the Basis of Preparation and Presentation, to improve comparability, reliability, and global investor confidence.

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APPENDIX

Qualitative Content Analysis of Integrated Reports

To verify not only the **presence** of IR elements but also their **narrative quality**, we proposed a structured qualitative content analysis of each integrated report:

Sampling & coders. Two independent coders review each firm-year report: discrepancies resolved by adjudication. Inter-rater reliability targeted at $\kappa \geq 0.75$.

Codebook (0–2 scale per criterion; higher = better quality).

1. **Specificity** (concrete descriptions, named projects, quantified inputs/outputs).
2. **Connectivity** (clear links among capitals → strategy → resource allocation → KPIs → outcomes; board oversight cited).
3. **Quantification & Targets** (baselines, numeric targets, time horizons, scenario analysis).
4. **Forward-looking Orientation** (material risks/opportunities with thresholds, plans, and milestones).
5. **Assurance & Data Quality** (third-party assurance of non-financial KPIs; consistent definitions; reconciliation to financials).
6. **Materiality & Readability** (materiality matrix or criteria; readability indicators; avoidance of boilerplate).

Scores aggregate to a **Narrative Quality Index (NQI)** by element (OV, GOV, BM, RO, SRA, PERF, OUT, BPP) and overall. NQI can be used (i) descriptively to profile report quality, and (ii) analytically by replacing binary indicators or interacting with them in regressions/SEM.