

INTEGRATED REPORTING AND FINANCIAL PERFORMANCE OF LISTED MANUFACTURING FIRMS IN NIGERIA

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Abstract

This study on integrated reporting and financial performance of listed manufacturing firms in Nigeria evaluated the impact of integrated reporting on the financial performance of manufacturing firms in Nigeria. The study looked at the effect of Social and Relationship Capital, Government Disclosure, Human Capital Disclosure and Environmental Disclosure on financial performance amongst Manufacturing Firms in Nigeria. Ex-post facto research design was adopted to conduct the study. The target population of this study constituted of fifty manufacturing firms listed on the Nigeria Exchange Group as at April 2024. The Taro Yamane statistical formula, a simple random sampling technique was used to select forty-four listed manufacturing Firms in Nigerian Exchange Group. The study adopted secondary means of data collection. Secondary data were generated through a review of the annual reports of the forty-four selected manufacturing firms from 2014-2023. Linear regression, with the aid of Statistical Package for Social Sciences 25 was used in analyzing the data and testing the hypotheses formulated for this study. Eight hypotheses were tested and findings revealed that Social and Relationship Capital, Governance Disclosure, Human Capital Disclosure have positive relationship with the Return on Equity and the Return on Asset. However, this relationship is insignificant on the financial performance of listed manufacturing firms. The study concluded that Integrated Reporting has a positive impact on the financial performance of listed manufacturing firms in Nigeria. However, the impacts are not significant. Based on the findings, the study recommended that manufacturing firms should invest in social and relationship capital initiatives, provide detailed disclosures about their governance structures and practices, improve on their human capital management and disclosure practices and intensify their efforts in environmental sustainability and provide more detailed and comprehensive environmental disclosures because there is a positive relationship between integrated reporting and financial performance of manufacturing firms in Nigeria.

Keywords: Integrated Reporting (IR), Financial Performance, Social and Relationship Capital (SRC), Governance Disclosure (GD), Human Capital Disclosure (HCD), Environmental Disclosure (ED), Return on Asset (ROA), Return on Equity (ROE).

Introduction

Manufacturing firms in Nigeria play a vital role in the country's economic development through job creation, industrial growth, and increased productivity. However, the sector faces challenges such as infrastructural deficits, inconsistent policies, and limited access to finance, which hinder its competitiveness (Ezeaku, 2019). To address these issues, effective corporate reporting practices, particularly integrated reporting, have become essential for enhancing transparency, accountability, and stakeholder confidence. Traditional reporting, which primarily focused on financial statements, failed to capture the broader value creation process. The shift towards sustainability reporting in the early 2000s under frameworks like the Global Reporting Initiative (GRI) and Triple Bottom Line Reporting aimed to incorporate social and environmental aspects into corporate disclosures (GRI, 2011; Stenzel, 2010). However, these approaches lacked consistency and alignment with long-term corporate strategy, leading to the emergence of integrated reporting (Abeysekera, 2013; Marx & Mohammadali-Haji, 2014).

Integrated reporting, formalized by the International Integrated Reporting Council (IIRC) in 2010, provides a comprehensive framework that combines financial and non-financial information to offer a holistic view of a firm's value creation process (IIRC, 2010). It helps manufacturing firms align their strategic objectives with sustainability considerations and risk management, ultimately improving decision-making and competitiveness (Dumay et al., 2016). Financial performance indicators such as Return on Assets (ROA) and Return on Equity (ROE) are commonly used to assess manufacturing firms' efficiency and profitability, with integrated reporting enhancing their ability to evaluate risks, allocate resources, and respond to market trends (Uwuigbe & Ikpefan, 2019). By fostering a long-term perspective, integrated reporting encourages innovation and resilience, supporting firms in maintaining sustainable growth (Adams & Simnett, 2016).

The lack of integrated reporting in Nigerian manufacturing firms can negatively impact performance and stakeholder trust. Without it, firms may struggle to effectively communicate strategies and risks, leading to reduced investor confidence and increased regulatory scrutiny (Elamer, 2021). Additionally, the absence of integrated reporting may hinder the identification and management of sustainability challenges, affecting long-term stability (Oyedele, 2019). Therefore, promoting integrated reporting practices is crucial for enhancing transparency, accountability, and resilience in Nigeria's manufacturing sector, ensuring sustainable economic and industrial development.

Statement of the Problem

Integrated reporting has gained attention in recent years due to its potential impact on corporate profitability and overall performance in today's dynamic business environment (Aggarwal, 2013). In Nigeria, firms such as Dangote Group, Nestlé Nigeria Plc, and Nigerian Breweries Plc have adopted integrated reporting to enhance performance, particularly in non-financial areas such as productivity, efficiency, accountability, and staff effectiveness. However, most existing studies on integrated reporting focus on its history, adoption, and compliance rather than its direct impact on firm performance (Owen, 2013; Wild & Van Staden, 2013; Thiagarajan & Baul, 2014; Kristyna, 2015; Demirel & Erol, 2016; Sutana & Sirin, 2016;; BlackSun, 2014; James, 2014; Smith, 2015; Kaya, 2015; Reuter & Messner, 2015). Studies that link integrated reporting

to firm performance, such as those by Barin and Ansari (2016) on Return on Assets (ROA) and Return on Equity (ROE), Appiagyei et al. (2017) on Sales Growth and Earnings Per Share (EPS), and Huda et al. (2018) on ROA, have largely overlooked the specific impact of integrated reporting components. To address this gap, this study seeks to examine the various components of integrated reporting and their effect on the financial performance of listed manufacturing firms in Nigeria.

Conceptual Framework

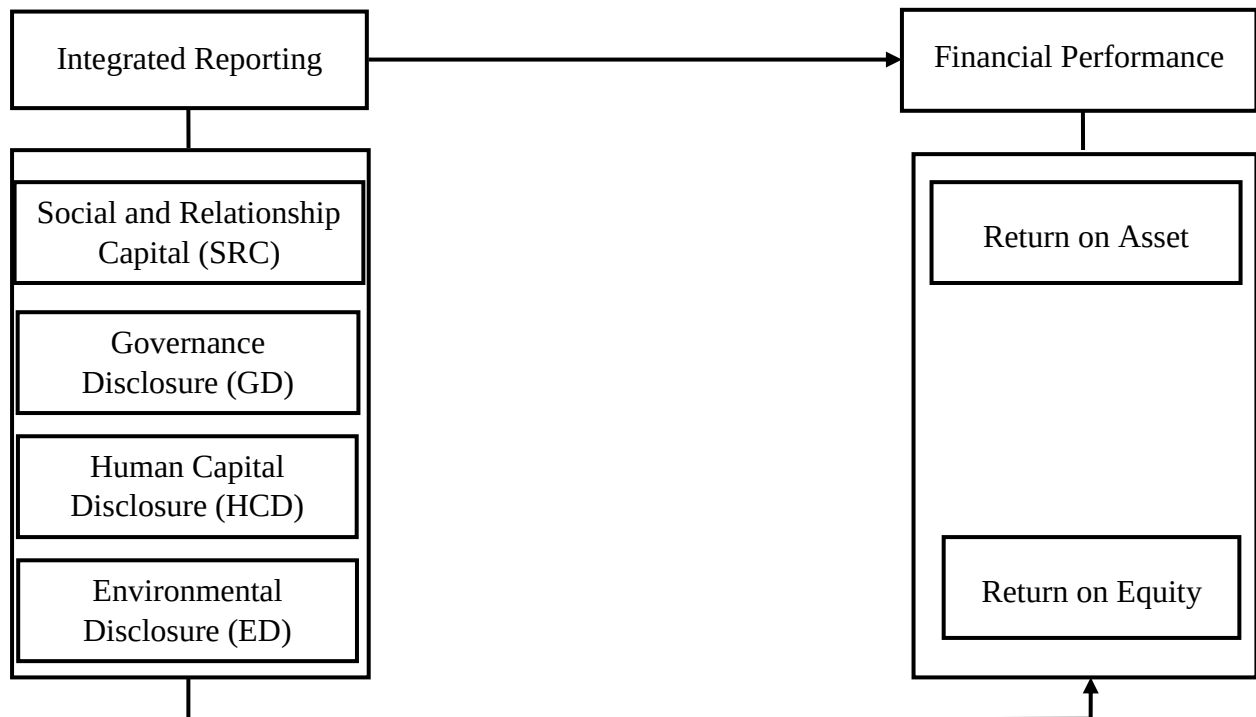


Figure 1: Conceptual frame work of the relationship between Integrated Reporting and the Performance of Listed Manufacturing Firms in Nigeria
Source: Researcher's Desk, 2024

Purpose of the Study

The main purpose of this study was to examine the impact of Integrated Reporting (IR) on the financial performance of listed manufacturing firms in Nigeria.

The specific objectives of the study were to;

- i. Examine the impact of Social and Relationship Capital (SRC) on the Return on Asset (ROA).
- ii. Examine the impact of Social and Relationship Capital (SRC) on the Return on Equity (ROE).
- iii. Ascertain the impact of Governance Disclosure (GD) on the Return on Asset (ROA)
- iv. Ascertain the impact of Governance Disclosure (GD) on the Return on Equity (ROE).
- v. Determine the impact of Human Capital Disclosure (HCD) on the Return on Asset (ROA)
- vi. Determine the impact of Human Capital Disclosure (HCD) on the Return on Equity (ROE)
- vii. Investigate the impact of Environmental Disclosure (ED) on the Return on Asset (ROA)

- viii. Investigate the impact of Environmental Disclosure (ED) on the Return on Equity (ROE)

Research Questions

This study would examine the following questions;

- i. What is the impact of Social and Relationship Capital (SRC) on the Return on Asset (ROA)?
- ii. What is the impact of Social and Relationship Capital (SRC) on the Return on Equity (ROE)?
- iii. What is the impact of Governance Disclosure (GD) on the Return on Asset (ROA)?
- iv. What is the impact of Governance Disclosure (GD) on the Return on Equity (ROE)?
- v. What is the impact of Human Capital Disclosure (HCD) on the Return on Asset (ROA)?
- vi. What is the impact of Human Capital Disclosure (HCD) on the Return on Equity (ROE)?
- vii. What is the impact of Environmental Disclosure (ED) on the Return on Asset (ROA)?
- viii. What is the impact of Environmental Disclosure (ED) on the Return on Equity (ROE)?

Hypotheses of the Study

The hypotheses of this study were stated in null form as follows:

- H₀₁:** Social and Relationship Capital (SRC) has no significant impact on the Return on Asset (ROA).
- H₀₂:** Social and Relationship Capital (SRC) has no significant impact on the Return on Equity (ROE).
- H₀₃:** Governance Disclosure (GD) has no significant impact on the Return on Asset (ROA).
- H₀₄:** Governance Disclosure (GD) has no significant impact on the Return on Equity (ROE).
- H₀₅:** Human Capital Disclosure (HCD) has no significant impact on the Return on Asset (ROA).
- H₀₆:** Human Capital Disclosure (HCD) has no significant impact on the Return on Equity (ROE).
- H₀₇:** Environmental Disclosure (ED) has no significant impact on the Return on Asset (ROA).
- H₀₈:** Environmental Disclosure (ED) has no significant impact on the Return on Equity (ROE).

Significance of the Study

The significance of this study lies in its potential contribution to both academic knowledge and practical implications for the business environment, particularly in the context of listed manufacturing firms in Nigeria. By investigating the impact of Social and Relationship Capital, Governance Disclosure Human Capital Disclosure, and Environmental Disclosure on the Return on Asset) and Return on Equity, the study aims to offer valuable insights into the relationship between integrated reporting and financial performance within this specific sector. Understanding the impact of SRC on ROA and ROE is crucial as it sheds light on the social and relational aspects that may affect the financial outcomes of manufacturing firms. Additionally, investigating the impact of ED on ROA and ROE addresses the increasingly important aspect of environmental sustainability and its potential repercussions on financial metrics. From an academic perspective, the research fills gaps in existing literature by providing empirical evidence on the impact of Integrated Reporting on Return on Asset (ROA) and Return on Equity (ROE) in the context of listed manufacturing firms in Nigeria.

LITERATURE REVIEW

Theoretical Framework

In order to relate to the variables of the study and form the base upon which the study is rested, the study adopted the stakeholder theory and agency theory.

Stakeholder Theory

Stakeholder Theory, formulated by R. Edward Freeman in 1984, represents a paradigm shift in organizational management by advocating for a broader consideration of interests beyond shareholders. This theoretical framework posits that organizations exist in a complex network of relationships with various stakeholders, including but not limited to employees, customers, suppliers, and the community. Unlike traditional approaches that predominantly prioritize shareholder wealth maximization, Stakeholder Theory argues for a more inclusive perspective that acknowledges the significance of addressing the diverse needs and expectations of all stakeholders.

In the context of integrated reporting and financial performance of manufacturing firms in Nigeria, Stakeholder Theory assumes critical relevance. Integrated reporting, as a strategic communication tool, aligns with the principles of Stakeholder Theory by seeking to capture and articulate the organization's impact on and interdependencies with a broader range of stakeholders. By incorporating social and relationship capital into the reporting process, organizations aim to foster transparency, accountability, and ethical considerations, thereby aligning their practices with the multifaceted interests of stakeholders. However, stakeholder theory is not without criticism. One notable critique center around the perceived vagueness in defining who qualifies as a stakeholder, leading to challenges in operationalizing the theory. Critics argue that the theory lacks clear guidance on prioritizing among conflicting stakeholder interests, potentially making it challenging for organizations to navigate the complex landscape of stakeholder relationships (Mitchell, Agle, & Wood, 1997). Despite these criticisms, Stakeholder Theory remains a robust framework that underscores the evolving nature of organizational responsibilities and emphasizes the broader societal role of businesses beyond profit maximization (Freeman, 1984).

Agency Theory

Agency Theory, developed by Michael C. Jensen and William H. Meckling in 1976, provides a lens through which to understand the dynamics between principals (typically shareholders) and agents (management) within an organizational structure. At its core, the theory recognizes the inherent conflicts of interest between these two groups, acknowledging that agents may not always act in the best interests of principals due to information asymmetry and differing objectives. Agency Theory seeks to explore mechanisms that can align the interests of agents with those of principals to mitigate these agency problems.

In the context of integrated reporting and financial performance, Agency Theory becomes instrumental in dissecting how the adoption of integrated reporting practices influences the alignment of interests between various stakeholders and management. Integrated reporting, with its emphasis on transparency, aims to address information asymmetry by providing a more comprehensive and holistic view of organizational performance. This can serve as a mechanism to bridge the gap between principals and agents, fostering trust and aligning interests. Despite its utility, Agency Theory has faced criticism for oversimplifying the complexities inherent in organizational relationships. Critics argue that the theory may not sufficiently capture the nuances of trust, cooperation, and relational dynamics, which are integral to the success of an organization (Eisenhardt, 1989). Nonetheless, integrating insights from both Agency and

Stakeholder Theories offers a diverse understanding of the dynamics at play in the relationship between integrated reporting, stakeholder interests, and organizational performance. This integration recognizes the need for transparency to mitigate agency problems while also considering the broader range of stakeholder interests in organizational decision-making.

Conceptual Review

This review would explore the various integrated reporting components that are commonly reported by manufacturing firms and how they impact their financial performance. This review would also explore the various factors that contribute or delimit to the integrated reporting. The review also examines the challenges and benefit that manufacturing firms face in implementing integrated reporting practices.

Concept of Integrated Reporting

Since late 2009, integrated reporting (IR) has emerged as a response to criticisms of traditional financial reporting, aiming to enhance corporate value creation and operational synergies (Adams & Simnett, 2011; Gray, 2012; Buhr, 2007). The International Integrated Reporting Committee (IIRC, 2013) defines IR as a process rooted in integrated thinking, resulting in a concise report that communicates an organization's strategy, governance, performance, and prospects in relation to its external environment. It combines financial and non-financial disclosures, including sustainability and governance aspects, within a single document (Mia, Riikka & Anna-Liisa, 2013). The IR framework is built on three core concepts: the value-creation process, the utilization of various forms of capital (human, intellectual, financial, social, and natural), and value creation for the organization and its stakeholders (Gupta, 2013; Druckman, 2013). Advocates argue that IR enhances transparency, integrates sustainability into corporate strategy, and provides investors with broader decision-making information (Eccles & Arbrestre, 2011; Mammatt, 2009). Additionally, King & Robert (2013) highlight how factors like global economic trends, competition, and corporate reputation influence the adoption of IR.

Despite its benefits, IR adoption varies globally, with European and African firms more likely to disclose integrated reports than their North American counterparts, largely due to regulatory requirements and policy relevance (Frías-Aceituno, García-Sánchez & Rodríguez-Ariza, 2013; Demiel & Erol, 2016). Some scholars argue that IR remains in transition, requiring robust accounting foundations for effective implementation (Houdet & Germaneau, 2011; Cozma, 2015). Nevertheless, the increasing demand from investors and stakeholders for greater corporate transparency strengthens IR's position as a future-oriented reporting approach (Clark, 2013; Adebimpe, Ekubiat & Bokime, 2015). As Ioannous and Serafeim (2011) suggest, mandatory IR policies could drive widespread adoption, providing firms with a competitive advantage and fostering greater trust among stakeholders.

Integrated Reporting in Nigeria

The adoption of Integrated Reporting (IR) in Nigeria reflects a shift towards more holistic corporate reporting, aligning with global trends and regulatory frameworks such as the Nigerian Code of Corporate Governance (2018), which emphasizes transparency, accountability, and multi-capital value creation (SEC Nigeria, 2018). While financial services, telecommunications, and manufacturing sectors have shown commitment to IR, challenges such as data quality, cultural shifts, and internal capability gaps persist (Adegbe et al., 2019; Salawu & Salawu, 2020). However, the benefits of IR, including improved stakeholder engagement and risk management, present significant opportunities. Sectoral variations exist in IR adoption,

necessitating a contextual understanding of implementation dynamics. Efforts such as training programs and collaborations among regulatory bodies, professional organizations, and businesses are fostering awareness and capacity building, with expectations that more organizations will integrate IR into their reporting frameworks (Adegbe et al., 2019; Salawu & Salawu, 2020).

Integrated Reporting Framework

The IIRC (2013) established a framework for integrated reporting. The purpose of the integrated reporting framework is to increase the quality of corporate financial disclosure, allowing businesses to present a more strategic view of the challenges crucial to long-term sustainability. The framework establishes guiding principles and content elements that govern an integrated report's overall content while also explaining the fundamental concepts that underpin it. Guiding principles underpin the creation and presentation of integrated reports, determining the report's content and how information is presented. Content components are the primary kinds of information necessary to be included in an integrated report. The framework's emphasis on various types of capital is a key feature. This assessment of diverse capitals extends beyond typical financial measures, recognising the broader range of resources that contribute to value development. The following are the guiding principles, contents, and capital that an entity must declare (IIRC, 2013).

Organizational Overview and External Environment

The organisational overview in an integrated report gives stakeholders a complete picture of the organization's identity, historical history, and external environment. It starts with a clear statement of purpose and mission, which aligns the organisation with stakeholder expectations and long-term sustainability (Adams, 2015). Mission, major activities, markets, products, stakeholder dependencies, and risk attitudes are all important internal aspects that affect value creation in the short, medium, and long term (IIRC, 2013). Analysing the external environment, which includes macroeconomic, social, technological, environmental, and political factors, aids in the assessment of risks and opportunities, thereby improving decision-making and transparency. A historical perspective provides insight into milestones, successes, and problems, demonstrating organisational resilience (Owen, 2013). Furthermore, analysing industry trends, market pressures, and regulatory changes allows stakeholders to better comprehend strategic responses to competitive dynamics (Dumay et al., 2016). Transparency in regulatory compliance creates trust and displays commitment to ethical governance (Adams, 2017).

Governance

The governance structure of an organization supports value creation in the short, medium, and long term by detailing the Board of Directors' skills, qualifications, risk management approach, cultural and ethical values. In Nigeria, annual reports of listed entities provide governance details in the Directors' and Audit Committee reports, though they lack comprehensive discussions on the interrelationship between governance, strategic decisions, and value creation. The SEC Code (2011) mandates annual performance appraisals for the board, committees, chairman, and directors, which may be outsourced to external consultants. Similarly, corporate governance codes from the Central Bank of Nigeria, Pension Commission, National Insurance Commission, and Nigerian Telecommunications require independent annual evaluations of board performance, presented to shareholders and regulators. However, corporate reports need to better align with integrated reporting requirements by elaborating on governance and value creation linkages. Corporate governance, a system of rules and practices directing firms, is managed by the board,

which balances stakeholder interests and makes key decisions affecting the firm's survival (Chen, 2019). The board also monitors managers to ensure shareholder value maximization, with the costs of maintaining board oversight being a monitoring cost (Krishnan & Visvanathan, 2008; Chen, 2019).

Business Model

An integrated report should encompass details regarding the six key forms of capital: financial, manufactured, social and relational, human, intellectual, and environmental capital. It must outline the core business operations undertaken and the outcomes resulting from these efforts. These elements should directly contribute to the organization's ability to generate sustainable long-term value (Adams, 2015). The foundation for determining performance metrics in an integrated report lies in the company's business framework, and leadership must acknowledge that investors consider this crucial for optimizing and utilizing various forms of capital. The significance of specific capitals and the structure of the business model will vary based on the industry and operational focus of the company.

Risks and Opportunities

The report must outline essential risks and prospects emerging from both internal dynamics and external market conditions, evaluating their probability, potential consequences, and mitigation approaches (Lipunga, 2015). Generally, the Chairman's address offers insights into these risks and opportunities within both global and domestic landscapes. Although the CBN and SEC Codes require firms to disclose risk management frameworks in their annual statements, publicly traded firms in Nigeria may be reluctant to reveal critical risks or prospects to safeguard their competitive edge. The organization's operational landscape—including vital assets, stakeholder relationships, and regulatory factors—shapes its capacity to generate and sustain value over short, medium, and long-term horizons. Effective reporting should consider stakeholder expectations, resource constraints, and economic, social, and environmental elements, ensuring openness while strategically managing competitive sensitivities.

Strategy and Resource Allocation

The integrated report must present the organization's strategic plans, execution methods, and their effects on business operations and various forms of capital. It should acknowledge that certain strategies may temporarily diminish one type of capital while fostering growth in another over time (Fried et al., 2014). This aspect receives limited attention in the annual disclosures of publicly traded firms in Nigeria. The report should comprehensively outline the company's strategic goals, how progress is measured, and expected results over short-, medium-, and long-term periods. By connecting strategy with the organizational landscape, risk mitigation, and essential assets, the report enables stakeholders to grasp the factors that drive and safeguard value, while showcasing the company's distinctive capacity for sustaining long-term success.

Performance

An integrated report should employ both financial and non-financial performance indicators to demonstrate the organization's capacity to generate value and attain its objectives, utilizing the six capitals: financial, manufactured, intellectual, human, social and relationship, and natural. It is essential to disclose the positive and negative effects on these capitals and elucidate the connection between historical performance, current outcomes, and future projections. Performance metrics should reflect how the organization has fared concerning its strategic goals

and associated initiatives. Additionally, the report should provide an analysis of the organization's perspective on significant external economic, environmental, and social impacts and risks throughout its value chain, incorporating relevant quantitative data where feasible. The integrated report must also delineate the opportunities, challenges, and uncertainties that may influence the achievement of strategic objectives, emphasizing expected changes over time. It should address the organization's preparedness to adapt to future operational environments, balance immediate and long-term priorities, and manage uncertainties. Incorporating forward-looking information, as discussed by Aljifri and Hussainey (2007), offers insights into current strategies and future forecasts, aiding stakeholders in evaluating prospective performance.

Capital in Integrated Reporting Framework

Under the integrated reporting framework, six value creating capitals must be reflected in an integrated report. The six capitals identify by the framework are: financial, manufactured, intellectual, human, social and relationship, and natural capital (IIRC, 2013). These value creating capitals are considered relevant to the life of a firm in the process of producing its products and/or services available to its consumers. Each of these is explained here.

Social and Relationship Capital: Social and relationship capital, as conceptualized by Bourdieu (1986) and Coleman (1988), represents resources embedded in social networks that enhance business performance through access to intellectual, financial, and cultural assets (Nahapiet & Ghoshal, 2018). It encompasses external stakeholder relationships, supply chain networks, and community engagement, which contribute to competitiveness and firm value (Dyer & Singh, 2008; Huang et al., 2021). Human capital, consisting of competencies, skills, and experiences, is critical for innovation and governance alignment (Cosma et al., 2018), with regulatory bodies such as the SEC (2021) emphasizing human capital disclosure for assessing workforce readiness (CIPD, 2020). Additionally, manufactured capital (IIRC, 2015) and financial capital (Adams, 2015; Dumay et al., 2016) enhance sustainability, while intellectual capital, including knowledge and innovation, fosters competitive advantage (Nahapiet & Ghoshal, 1998; Adams, 2017). Natural capital, reflecting environmental dependencies, has become integral to sustainability reporting (Dumay et al., 2016; Salawu & Salawu, 2020). Despite challenges such as framework inconsistencies and corporate confidentiality concerns (Eccles & Serafeim, 2011; McNally et al., 2017), integrated reporting enhances transparency, investor confidence, and market stability (Lee & Yeo, 2016; Zhou et al., 2017). By linking financial and non-financial metrics, it ensures strategic alignment with long-term value creation and business sustainability (Cheng et al., 2014; Dinh & Pham, 2020).

Return on Asset (ROA)

Return on Assets (ROA) represents a financial indicator assessing an organization's efficiency in generating earnings relative to its total asset base (Brealey et al., 2017). This metric examines how productively a business leverages its resources to produce profits. ROA serves as a key benchmark for stakeholders such as investors, lenders, and executives, offering insight into the firm's ability to convert assets into revenue. The formula for ROA involves dividing net earnings by the overall asset value. Net earnings refer to the residual profit remaining after all costs, including interest and taxes, have been deducted.

$$\text{Return on Asset (ROA)} = \frac{\text{Net Income}}{\text{Total Assets}} \times \frac{100}{1}$$

The computed ROA figure is displayed as a percentage, signifying the profit earned for each unit of total assets. A greater percentage implies that the business efficiently converts its resources into income, whereas a smaller percentage indicates reduced profitability in relation to its asset pool. ROA is instrumental in evaluating firms within the same sector or across various industries. This measure enables investors and stakeholders to gauge how effectively a company's resources contribute to earnings while also assessing leadership's proficiency in resource allocation (Brealey et al., 2017).

Return on Equity (ROE) serves as a key financial indicator that evaluates a firm's profitability relative to its shareholders' invested capital. This metric offers insight into how effectively a business utilizes equity funding to generate returns. It is determined by dividing the organization's net profit by its overall shareholder equity. Net profit represents the remaining earnings after subtracting all costs, including interest and taxation.

$$\text{Return on Equity (ROE)} = \frac{\text{Net Income}}{\text{Total Equity}} \times \frac{100}{1}$$

This indicator is vital for investors as it reflects how effectively a firm leverages its equity capital to produce earnings. Essentially, ROE demonstrates the efficiency with which a business transforms equity into profit. A greater ROE generally signifies stronger financial outcomes and competent management. However, evaluating ROE alongside industry standards and factoring in elements such as debt obligations and economic conditions is crucial for a well-rounded assessment of a company's overall performance.

Regulation of Corporate Financial Reporting System in Nigeria

An essential area of interest for investors, lenders, regulators, analysts, and other corporate stakeholders remains financial reporting. Like many other nations, Nigeria enforces regulations governing its financial disclosure practices. The country operates under multiple regulatory bodies and an established legal framework overseeing financial reporting. According to Okoye and Ofegbu (2006), financial reporting regulation entails establishing guidelines for disclosure requirements and enforcing penalties for violations. Additionally, it includes implementing effective systems to ensure compliance with disclosure standards. Wolk and Tearney (1997) similarly emphasized that financial reporting operates within a regulated environment. These guidelines serve as essential principles that must be adhered to in financial reporting to achieve its intended goals. Regulation is crucial to maintaining consistency in both the structure and content of financial disclosures while ensuring that a defined quality benchmark is upheld. Nigeria has multiple regulatory bodies and legal provisions governing financial reporting practices.

Empirical Review

Nurkumalasari et al. (2019) conducted research on the impact of integrated reporting disclosure on the valuation of 14 firms across Asia from 2015 to 2017. The study employed Tobin's Q as the outcome variable, while the explanatory variables included the integrated disclosure index, count of subsidiaries, long-term debt proportion, return on assets, total debt ratio, and return on equity. Data analysis was performed using descriptive statistics alongside POLS regression methods. Findings revealed that integrated reporting does not influence firm valuation, particularly in scenarios involving significant financial leverage.

El Deeb (2019) examined the influence of integrated reporting on the valuation and operational success of businesses listed on the EGX30 index within Egypt's stock exchange from 2012 to 2017. The study sourced data from the annual financial statements of the selected firms, which were then evaluated using descriptive statistics, Pearson correlation, and regression techniques. The results indicated that the integrated reporting index enhances both corporate performance and market valuation while also impacting the firms' leverage ratios.

Jeroe (2020) explored the impact of integrated reporting and non-financial disclosures on the performance of 44 firms worldwide between 2013 and 2019. The research considered return on assets and earnings per share as the outcome variables, while the explanatory factors included the integrated reporting index, non-financial disclosure index, company size, risk level, and market-to-book ratio. The study employed descriptive statistical methods along with pooled regression analysis. Findings indicated that both integrated reporting and non-financial disclosures have a negative effect on corporate performance.

Suttipun (2020) examined the relationship between integrated reporting and financial success among 150 firms in Thailand from 2012 to 2019. The research utilized Tobin's Q as the outcome variable, while the explanatory factors included indices for financial capital, manufactured capital, intellectual capital, human capital, social capital, and environmental capital, along with firm size. Correlation analysis and multiple least squares regression techniques were applied for data evaluation. The findings revealed that disclosing corporate social responsibility and capital-related information positively impacts financial performance, whereas environmental reporting has an adverse effect.

Albetairi et al. (2020) analyzed the connection between integrated reporting and financial outcomes in five insurance firms in Bahrain from 2012 to 2019. The research incorporated business model index, risk and opportunities index, strategy and resource allocation index, and performance disclosure index as measures of integrated reporting, serving as the explanatory variables, while return on assets was designated as the dependent variable. The study applied the pooled ordinary least squares regression method for evaluation. Results indicated that integrated reporting metrics had a varied impact on corporate performance, with both the risk and opportunities index and the performance disclosure index exerting a negative effect.

Soumillon (2020) analyzed the value relevance of integrated reporting of 63 firms in South Africa in 2019. The investigation employed the adjusted market value of equity as the dependent variable and also utilized integrated reporting quality, corporate social responsibility performance, corporate governance as well as environmentally and socially sensitive index as independent variables. The study employed descriptive statistics as well as pooled ordinary least square regression analysis and the findings showed that integrated reporting do not significantly influence firm value.

Tijani et al. (2021) in their study investigated empirical evidence on perception towards integrated reporting with particular reference to annual corporate reporting in Nigeria. Questionnaire was administered using Google Document and analysis was conducted using Kruskal-Wallis T-test with the aid of E-Views statistical software. Findings revealed that reporting under the integrated framework has potential benefits to economic agents in general and to the corporate reporting profession in particular. The study further reveal that among othersthat organizations should adopt integrated reporting as a way of reporting the positive, negative issues and challenges of the firms.

Vitezić and Petrić (2022) examined integrated reporting- concept and impact on performance of Croatian firms. A sample size of 138 firms was used. In order to determine significance of selected indicators, the hypothesis was tested with parametric test (T-test) and non-parametric test (Mann-Whitney U-test). T-test was to determined statistical significance of the difference between means of firms which report outside the financial framework and those who do not. Two-tailed test with 95% interval of reliability was used to determined ROA, EBIT and EBITDA statistically significant with assumption of equality and inequality of variances. The result reveals that ROE and PRMA were statistically insignificant for both assumptions. The findings further reveals that there is a significant difference in the sum of ranges between firms with integrated reporting information and those without it.

Huda et al.(2023) undertook a study which was aimed at exploring (IR) among five listed insurance firms in Bahrain and its effects on their financial performance (Return on Assets). Content, descriptive and linear regression analyses were employed to analyze the collected data over a period of four years from 2012 to 2020. The research findings suggested that there was a wide variation of firms' compliance with (IR), and the use of non-uniform disclosure formats. The study further revealed that business model, strategy and resource allocation had a positive and significant relationship with Return on Assets (ROA), while risk and opportunities and performance elements negatively, but significantly related to ROA.

Oyewo et al. (2023) examined whether integrated reporting should be incorporated in the management accounting curriculum in Nigeria. Using questionnaire as the research instrument, the study surveyed the views of accountants across seven sectors in Nigeria— the Academics, Audit/Consulting, Financial service, Oil & Gas, Telecommunications, Manufacturing, and Public sector. It was hypothesized that the competence required for preparing integrated reports significantly justifies the need to incorporate integrated reporting in accounting curriculum. Data were analysed, with the combination of statistics such as mean, standard deviation, percentage analysis, cross-tabulation, partial correlation and Kruskal Wallis test at 5% significance level. The findings established the existence of a consensus, among respondents, on the need to inculcate integrated reporting in the management accounting curriculum.

Gap in Literature

The existing body of literature on integrated reporting and its impact on financial performance predominantly focuses on individual components, such as social capital or governance disclosure, in isolation. However, there appears to be a notable gap in the comprehensive examination of how social and relationship capital, governance disclosure, human capital disclosure, and environmental disclosure collectively interact and influence the financial performance of manufacturing firms in the Nigerian context.

Method

This study adopted the *ex-post facto* research design to determine the impact of integrated reporting on the financial performance of listed manufacturing firms in Nigeria, evidence from 2014-2023. It is a quasi-experimental design that focuses on how actions that have occurred can predict certain causes. This research design is considered appropriate because of its ability to view comprehensively and address in detail the issues raised in the hypotheses and to also help the researcher make inferences and draw conclusions. The population of this study constitutes of 50 listed manufacturing firms across consumer goods, industrial goods, health care and oil and gas firms listed on Nigeria Exchange Group (NGX) as at April, 2024 between ten (10) year's period of 2014 to 2023. This section describes how the sample size for the study was determined. For this study, a simple random sampling technique was adopted. The technique allows elements

of the population equal opportunity of being selected. The exact sample size was derived statistically using Taro Yamane statistical formula shown below;

$$n = \frac{N}{1 + N(e)^2}$$

Where;

n= Sample Size

N = Finite Population

e = Error limit or level of significance (0.05)

1 = Unity (which is constant)

Since the population is made up of fifty (50) employees

$$n = \frac{50}{1 + 50(0.05)^2}$$

$$n = \frac{50}{1 + 50(0.0025)}$$

$$n = \frac{50}{1 + 0.125}$$

$$n = \frac{50}{1.125}$$

$$n = 44$$

Reliability and Validity of Research Instrument

The instrument for this study is the Audited Annual Reports and Accounts of manufacturing firms listed in the Nigerian Exchange Group (NXG). The Annual reports of the listed firms are public documents and usually subjected to various kinds of scrutiny by different regulatory institutions. Moreover, there are usually sanctions against firms which fail to comply with laid down financial rules and regulation. By reason of these facts, the instruments of data collection for this study (the financial statements of listed manufacturing firms on NXG) are considered valid and reliable.

Model Specification

The study is on integrated reporting and financial performance of manufacturing firms in Nigeria. The theoretical model developed is shown as follows;

FP = f(IR)

But FP = (ROA, ROE)

And IR = (SRC, GD, HCD, ED)

Therefore,

ROA = f(SRC, GD, HCD, ED)

ROE = f(SRC, GD, HCD, ED)

The econometric model developed is shown as follows;

$$ROA = a_0 + a_1SRC + \mu$$

$$ROE = a_0 + a_1SRC + \mu$$

$$ROA = a_0 + a_2GD + \mu$$

$$ROE = a_0 + a_2GD + \mu$$

$$ROA = a_0 + a_3HCD + \mu$$

$$ROE = a_0 + a_3HCD + \mu$$

$$ROA = a_0 + a_4ED + \mu$$

$$ROE = a_0 + a_4ED + \mu$$

Where;

FP = Financial Performance (dependent variable)

IR = Integrated reporting (independent variable)
ROA = Return on Asset
ROE = Return on Equity
SRC = Social and Relationship Capital
GD = Governance Disclosure
HCD = Human Capital Disclosure
ED = Environmental Disclosure
 a_0 = Regression Constant
 $a_1 - a_4$ = Coefficient of independent variables (Integrated reporting)
 μ = Stochastic Error

Data Analysis

This study employs numerical description and tabular presentation to analyze the collected data, using regression analysis to evaluate the relationship between integrated reporting and financial performance. The Statistical Package for Social Sciences (SPSS) version 25.0 was used for data analysis, as it allows for an empirical examination of the relationships between the independent and dependent variables, including their components. The decision rule for hypothesis testing states that the null hypothesis will be accepted if the p-value is greater than 0.05 and rejected if it is less than 0.05. An ex-post facto research design was adopted, enabling a retrospective analysis of historical panel data from 2014 to 2023 to determine the impact of integrated reporting on financial performance. The dataset includes integrated reporting components such as Social and Relationship Capital (SRC), Governance Disclosure (GD), Human Capital Disclosure (HCD), and Environmental Disclosure (ED), alongside financial performance indicators like Return on Assets (ROA) and Return on Equity (ROE), extracted from the Directors' Report, Corporate Governance Report, and audited annual financial statements of 44 listed manufacturing firms in Nigeria.

The study computes variables such as SRC, GD, HCD, ED, ROA, and ROE, which represent firm-specific factors influencing financial performance. These variables were derived from the published annual reports of sampled firms from 2014 to 2023. The collected and computed data are systematically analyzed and presented in accordance with the methodology outlined in Chapter Three. The analysis is structured into Univariate and Bi-variate analysis, ensuring a comprehensive examination of trends and relationships. A detailed table summarizing the data findings is attached in the appendices.

Univariate Analysis

This analysis involves describing and summarizing the data for each variable.

Table 4.1 shows the descriptive statistics of the variables used in this study. The descriptive statistics were minimum, maximum, mean and standard deviation.

Table 1 Descriptive Statistics

	N	MIN	MAX	Mean	Std. Deviation
Return on Asset (ROA)	440	-342.04	678.71	6.4829	59.47759
Return on equity (ROE)	440	-361.81	331.04	9.9862	52.75290
Social and Relationship Capital (SRC)	440	0	100	56.36	27.886
Governance Disclosure (GD)	440	0	100	56.27	26.671
Human Capital Disclosure (HCD)	440	0	100	65.64	29.653
Environmental Disclosure (ED)	440	0	100	50.77	28.498
Valid N (listwise)	440				

Source: Researcher's Computation (2024)

From Table 1, Return on Asset (ROA), the proxy for financial performance, had a minimum value of -342.04% and a maximum value of 678.71%. The mean value which indicated the average of ROA made by listed manufacturing firms for the period of study was 6.48% with the standard deviation of 59.47759. This means that the deviation between the data set for the ROA from the mean is high for the period of study. The observation of 440 was gotten by multiplying the numbers of listed manufacturing firms studied with the years from which the data were collected for the study.

Return on equity (ROE), the second proxy for financial performance, had a minimum value of -361.81% and a maximum value of 331.04%. The mean value which indicated the average of ROE made by listed manufacturing firms for the period of study was 9.99%, with the standard deviation of 52.75290. This means that the deviation between the data set for the ROE from the mean is high for the period of study.

Social and Relationship Capital (SRC) had a minimum value of 0% and a maximum value of 100%, a mean value of 56% and a standard deviation of 27.886. The mean value indicated the average of Social and Relationship Capital of the listed manufacturing firms for the period of study. This standard deviation means that the deviation between the data set for the Social and Relationship Capital from the mean is low for the period of study. Governance Disclosure (GD) had a minimum value of 0% and a maximum value of 100%. The mean value which indicated the average of Governance Disclosure of the listed manufacturing firms for the period of study was 56%, with the standard deviation of 26.671. This means that the deviation between the data set for the Governance Disclosure from the mean is low for the period of study.

Human Capital Disclosure (HCD) had a minimum value of 0% and a maximum value of 100%. The mean value which indicated the average of Human Capital Disclosure of the listed manufacturing firms for the period of study was 66%, with the standard deviation of 29.653. This means that the deviation between the data set for the Human Capital Disclosure from the mean is low for the period of study. Environmental Disclosure (ED) had a minimum value of 0% and a maximum value of 100%. The mean value which indicated the average of Environmental Disclosure of the listed manufacturing firms for the period of study was 51%, with the standard deviation of 28.498. This means that the deviation between the data set for the Environmental Disclosure from the mean is low for the period of study.

Test of Multi-Collinearity

To examine the existence of multi-collinearity in all the independent variables of the study, the Tolerance and Variance Inflation Factor (VIF) were calculated for each variable and presented by the researcher on Table 2 below:

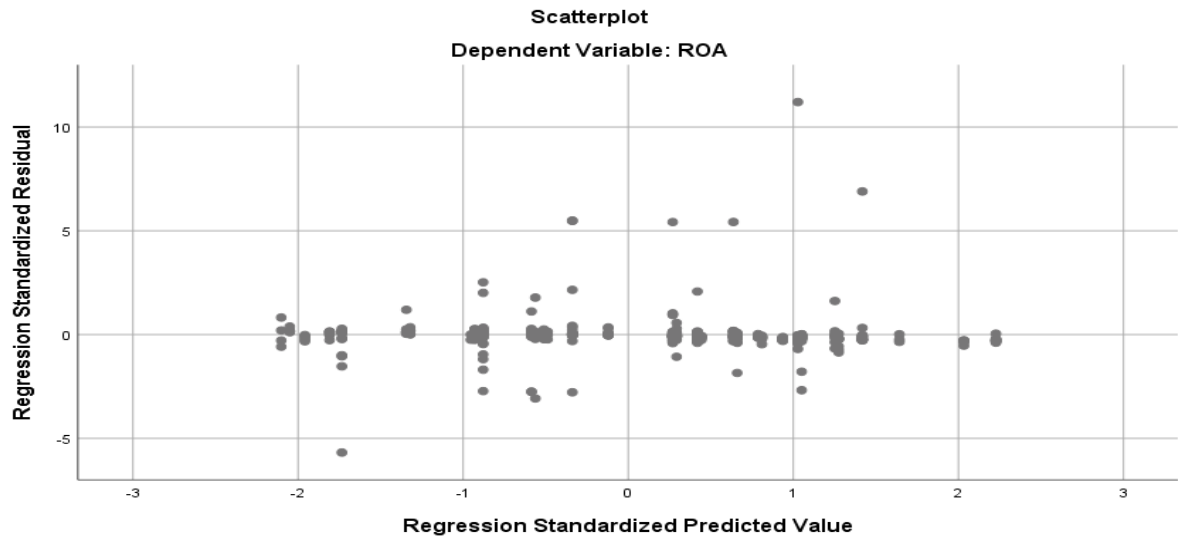
Table 2 Multi-Collinearity Check

Model		Tolerance	Variance Inflation Factor (VIF)
1	SRC	.285	3.505
	GD	.285	3.505
	HCD	.435	2.299
	ED	.435	2.299

Source: SPSS Output (2024)

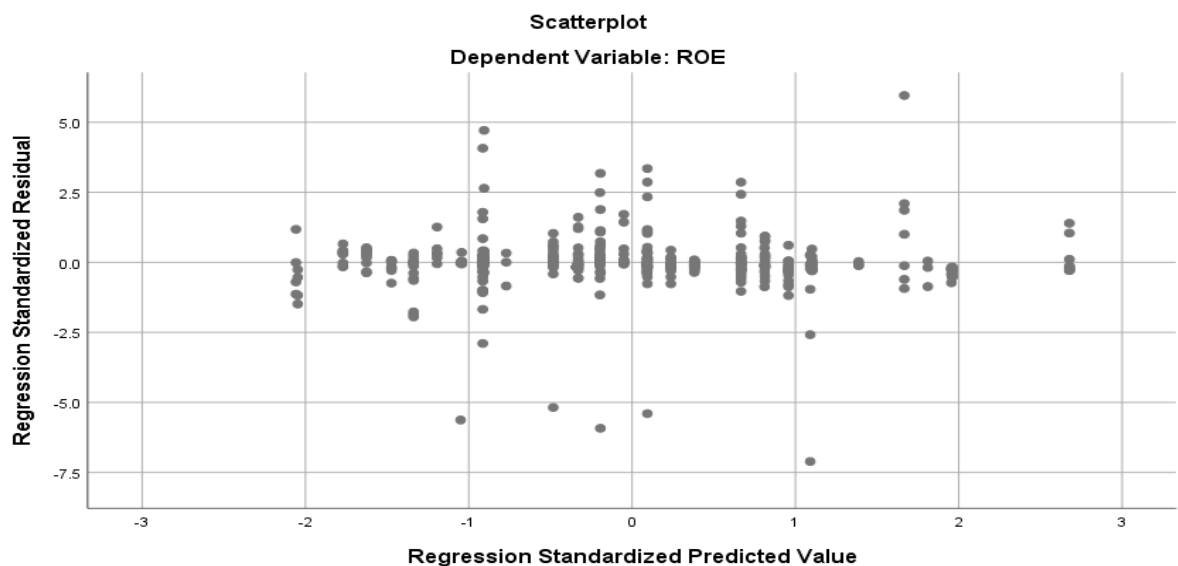
Table 2 shows that there was no multi-collinearity in each of the independent variables as the Tolerance for each was greater than 0.1 benchmark and the VIF was not greater than 10 as well.

Test of Heteroskedasticity



Charts 1: Scatterplot of ROA

Chart 1 shows the heteroskedasticity test for return on asset (ROA) and the independent variables. The scatterplot appears that the residuals are randomly dispersed around the chart and do not form a funnel shape. So, it can be concluded that the regression model does not have homoscedasticity problem.



Charts 2: Scatterplot of ROE

Chart 2 shows the heteroskedasticity test for return on equity (ROE) and the independent variables. The scatterplot appears that the residuals are randomly dispersed around the chart and

do not form a funnel shape. So, it can be concluded that the regression model does not have homoscedasticity problem.

Table 3: Test of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ROA	.348	440	.000	.395	440	.000
ROE	.223	440	.000	.661	440	.000
SRC	.140	440	.000	.929	440	.000
GD	.235	440	.000	.914	440	.000
HCD	.220	440	.000	.881	440	.000
ED	.168	440	.000	.926	440	.000

a. Lilliefors Significance Correction

Source: SPSS Output (2024)

Table 3 shows the tests of normality. The Shapiro-Wilk method is used because the sample size is less than 2000 while a sample larger than 2000 sizes will employ the Kolmogorov-Smirnov method. The p-Value of 0.000 here is less than 0.05, this shows that the data is not normally distributed. Moreover, this can be seen in the Chart 4.3 and Chat 4.4 (Normal Q-Q Plot of ROA and ROE) below as the points deviates from the diagonal line.

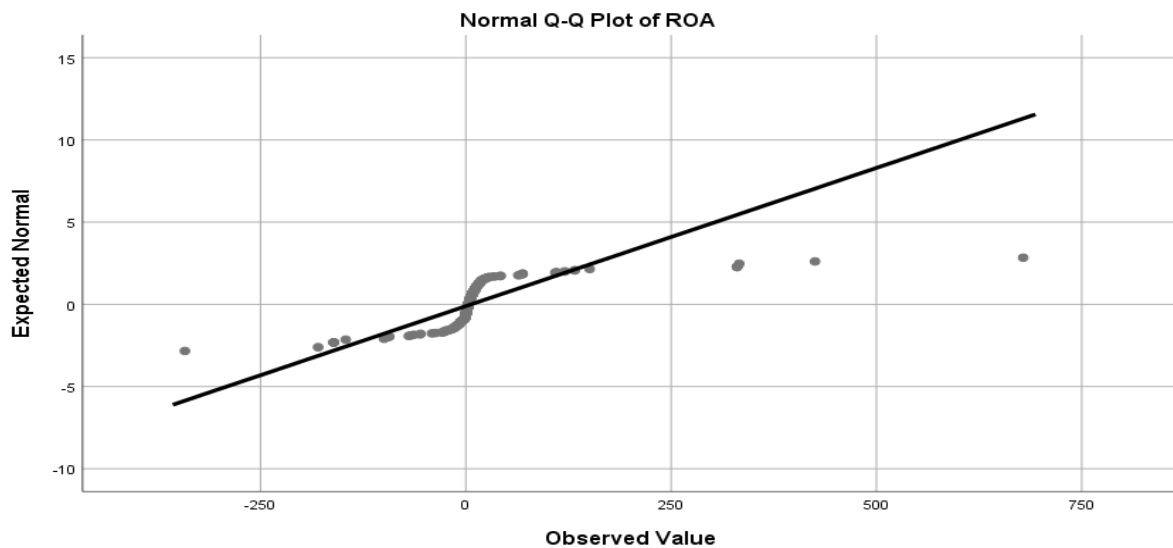


Chart 3: Normality Plot of ROA

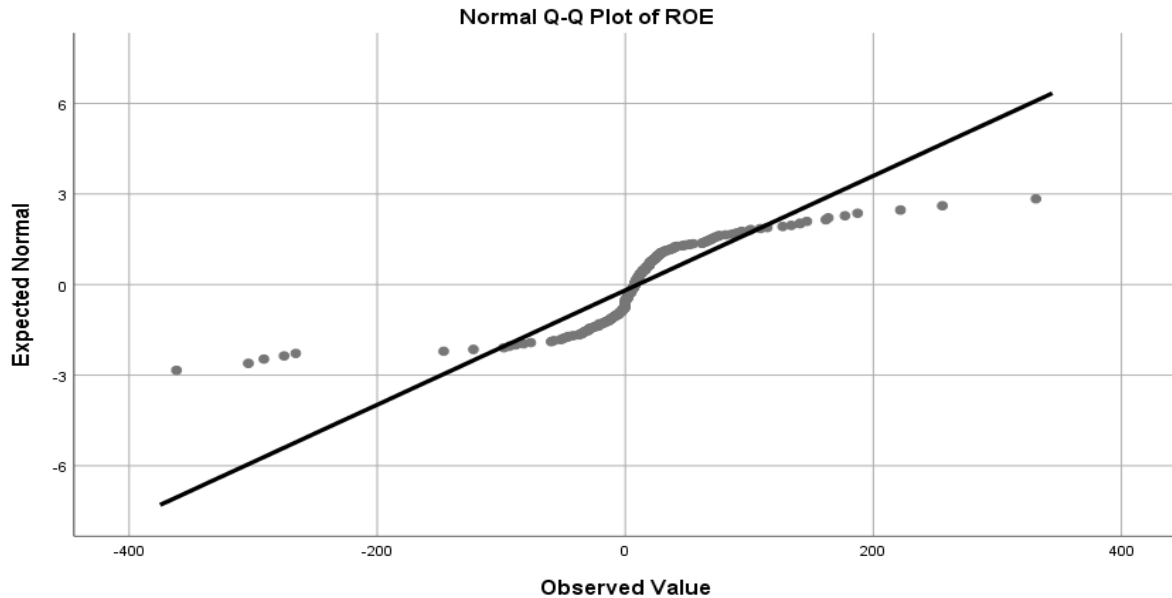


Chart 4: Normality plot of ROE

Bi-Variate Analysis

Test of Hypotheses

The test of hypothesis was done using simple linear regression analysis and the results are presented in Table 4 to Table 6. The result of the statistical testing was used to either accept or reject the null hypotheses at 0.05 level.

Ho₁: Social and Relationship Capital (SRC) has no significant impact on the Return on Asset (ROA) of listed manufacturing firms in Nigeria.

Table 4: Simple Linear Regression Output

Variables	Beta(β)	t-stat.	P-value	Remark	R	R ²	Adj R ²	F-ratio	DWT
Constant	1.356	.212	.832	Insignificant	.043 ^a	.002	.001	.798, P>0.05	2.218
SRC	.091	.893	.372	Insignificant					

Source: Researcher's Computation (2024)

Table 4 shows the result of Hypothesis One. The result shows that Social and Relationship Capital (SRC) has a significant and positive impact on Return on Asset (ROA). The coefficient of the constant 1.356 signifies that holding Social and Relationship Capital constant, listed manufacturing firms' ROA would stand at 1.356. The Social and Relationship Capital coefficient of 0.091 suggests that a percentage increase in Social and Relationship Capital would increase listed manufacturing firms' ROA by a factor of 9.1%. The result showed R, which is the correlation coefficient indicating the relationship between the variables as 0.002. It also showed that the adjusted R-squared is 0.001. This showed that 0.1% variation in Return on Asset of

listed manufacturing firms is caused by the impact of Social and Relationship Capital. This suggests that changes in SRC have a low impact on listed manufacturing firms' Return on Asset from 2014 to 2023. From the computed value of F-statistics of 0.798 (prob, >0.05), it was discovered that the adjusted R-squared was insignificant in explaining the impact of Social and Relationship Capital on the Return on Asset of listed manufacturing firms. Furthermore, the probability of the F-statistic is 0.372 and greater than 0.05 (5% level of significance).

The regressed estimation in Table 4 depicts that Social and Relationship Capital has positive impact on listed manufacturing firms' Return on Asset. However, the impact is statistically insignificant. In the light of this, the null hypothesis that Social and Relationship Capital (SRC) has no significant impact on the Return on Asset (ROA) of listed manufacturing firms in Nigeria is accepted since the probability of $0.0372 > 0.05$.

Thus, the estimated model is $ROA = 1.356 + 0.091SRC$

H₀₂: Social and Relationship Capital (SRC) has no significant impact on return on equity (ROE) of listed manufacturing firms in Nigeria.

Table 5: Simple Linear Regression Output

Variables	Beta(β)	t-stat.	P-value	Remark	R	R ²	Adj R ²	F-ratio	DWT
Constant	2.779	3.109	.002	Significant	.096 ^a	.009	-.001	.909, P>0.05	1.052
SRC	.006	.090	.343	Insignificant					

Source: Researcher's Computation (2024)

Table 5 shows that Social and Relationship Capital (SRC) has a positive but statistically insignificant impact on return on equity (ROE) for listed manufacturing firms. The constant of 2.779 suggests that, without SRC, ROE would be 2.779, while the SRC coefficient of 0.006 implies a 0.6% increase in ROE per unit increase in SRC. The correlation coefficient (R) is 0.096, and the adjusted R-squared (-0.001) indicates that SRC explains -0.1% of the variation in ROE. With an F-statistic of 0.909 ($p = 0.343 > 0.05$), the relationship remains insignificant, leading to the acceptance of the null hypothesis that SRC has no significant impact on ROE. The estimated model is $ROE = 2.779 + 0.006SRC$.

H₀₃: Governance Disclosure (GD) has no significant impact on the Return on Asset (ROA) of listed manufacturing firms in Nigeria.

Table 6: Simple Linear Regression Output

Variables	Beta(β)	t-stat.	P-value	Remark	R	R ²	Adj R ²	F-ratio	DWT
Constant	-1.362	-.206	.837	Insignificant	.063 ^a	.004	.002	1.719, P>0.05	2.227
GD	.139	1.311	.191	Insignificant					

Source: Researcher's Computation (2024)

Table 6 shows that Governance Disclosure (GD) has a positive but statistically insignificant impact on Return on Asset (ROA) for listed manufacturing firms. The constant of -1.362 suggests that, without GD, ROA would be -1.362, while the GD coefficient of 0.139 indicates that a 1% increase in GD would reduce ROA by 13.9%. The correlation coefficient (R) is 0.004, and the adjusted R-squared (0.002) shows that GD explains only 0.2% of the variation in ROA. With an F-statistic of 1.719 ($p = 0.191 > 0.05$), the relationship remains insignificant, leading to the acceptance of the null hypothesis that GD has no significant impact on ROA. The estimated model is $ROA = -1.362 + 0.139GD$. Thus, the estimated model is $ROA = -1.362 + 0.139GD$

Ho₄: Governance Disclosure (GD) has no significant impact on return on equity (ROE) of listed manufacturing firms in Nigeria.

Table 7: Simple Linear Regression Output

Variables	Beta(β)	t-stat.	P-value	Remark	R	R ²	Adj R ²	F-ratio	DWT
Constant	-1.277	-.640	.524	Insignificant	.163 ^a	.027	.017	2.668, P<0.05	1.087
GD	.045	.094	.106	Insignificant					

Source: Researcher's Computation (2024)

Table 7 indicates that Governance Disclosure (GD) has a positive but statistically insignificant impact on return on equity (ROE) for listed manufacturing firms. The constant of -1.277 suggests that, without GD, ROE would be negative, while the GD coefficient of 0.045 implies a 4.5% increase in ROE per unit increase in GD. However, the adjusted R-squared (0.017) shows that only 1.7% of ROE variations are explained by GD. With an F-statistic of 2.668 ($p = 0.106 > 0.05$), the relationship remains insignificant, leading to the acceptance of the null hypothesis that GD has no significant impact on ROE. The estimated model is $ROE = -1.277 + 0.045GD$.

Ho₅: Human Capital Disclosure (HCD) has no significant impact on return on assets (ROA) of listed manufacturing firms in Nigeria.

Table 8: Simple Linear Regression Output

Variable	Beta(β)	t-stat.	P-value	Remark	R	R ²	Adj R ²	F-ratio	DWT
Constant	1.641	2.594	.011	Significant	.055 ^a	.003	-.007	.297, P>0.05	1.044
HCD	.013	.545	.587	Insignificant					

Source: Researcher's Computation (2024)

Table 8 indicates that Human Capital Disclosure (HCD) has a positive but statistically insignificant impact on return on assets (ROA) for listed manufacturing firms. The constant of 1.641 suggests that, without HCD, ROA would be 1.641, while the HCD coefficient of 0.013 implies a 1.3% increase in ROA per unit increase in HCD. However, the adjusted R-squared (-0.007) indicates that HCD explains a negligible and inverse variation in ROA. With an F-statistic of -0.007 ($p = 0.587 > 0.05$), the relationship remains insignificant, leading to the acceptance of the null hypothesis that HCD has no significant effect on ROA. The estimated model is $ROA = 1.641 + 0.013HCD$.

Ho₆: Human Capital Disclosure (HCD) has no significant impact on the Return on Equity (ROE) of listed manufacturing firms in Nigeria.

Table 9: Simple Linear Regression Output

Variable	Beta(β)	t-stat.	P-value	Remark	R	R ²	Adj R ²	F-ratio	DWT
Constant	8.800	1.438	.151	Insignificant	.010 ^a	.000	.002	.045, P>0.05	1.290
HCD	.018	.213	.832	Insignificant					

Source: Researcher's Computation (2024)

Table 9 indicates that Governance Disclosure (GD) has a positive but statistically insignificant impact on return on equity (ROE) for listed manufacturing firms. The constant of -1.277 suggests that, without GD, ROE would be -1.277, while the GD coefficient of 0.045 implies a 4.5% increase in ROE per unit increase in GD. However, the adjusted R-squared (0.017) indicates that GD explains only 1.7% of the variation in ROE. With an F-statistic of 2.668 ($p = 0.106 > 0.05$), the relationship remains insignificant, leading to the acceptance of the null hypothesis that GD has no significant impact on ROE. The estimated model is $ROE = -1.277 + 0.045GD$. Thus, the estimated model is $ROE = 8.800 + 0.018HCD$

Ho₇: Environmental Disclosure has no significant impact on the return on equity (ROE) of listed manufacturing firms in Nigeria.

Table 10: Simple Linear Regression Output

Variables	Beta(β)	t-stat.	P-value	Remark	R	R ²	Adj R ²	F-ratio	DWT
Constant	992.083	.944	.415	Insignificant	.361 ^a	.112	.000	.809, P>0.05	1.2811.475
ED	.079	.090	.435	Insignificant					

Source: Researcher's Computation (2024)

Table 10 shows that Environmental Disclosure (ED) has a positive but statistically insignificant impact on Return on Equity (ROE) for listed manufacturing firms in Nigeria. The constant of 992.083 suggests that, without ED, ROE would be 992.083, while the ED coefficient of 0.079 indicates that a 1% increase in ED would increase ROE by 7.9%. The adjusted R-squared is 0.000, meaning ED explains no variation in ROE. With an F-statistic of 0.809 ($p = 0.435 > 0.05$), the relationship remains insignificant, leading to the acceptance of the null hypothesis that ED has no significant impact on ROE. The estimated model is $ROE = 992.083 + 0.079ED$.

Ho₈: Environmental Disclosure (ED) has no significant impact on the Return on Equity (ROE) of listed manufacturing firms in Nigeria.

Table 11: Simple Linear Regression Output

Variables	Beta(β)	t-stat.	P-value	Remark	R	R ²	Adj R ²	F-ratio	DWT
Constant	9.091	1.766	.078	Insignificant	.021 ^a	.015	.010	.040, P>0.05	1.211
ED	.128	.299	.842	Insignificant					

Source: Researcher's Computation (2024)

Table 11 shows that Environmental Disclosure (ED) has a positive but statistically insignificant impact on Return on Equity (ROE) for listed manufacturing firms in Nigeria. The constant of 9.091 suggests that, without ED, ROE would be 9.091, while the ED coefficient of 0.128 indicates that a 1% increase in ED would reduce ROE by 12.8%. The adjusted R-squared is 0.010, meaning ED explains only 1.0% of the variation in ROE. With an F-statistic of 0.040 ($p = 0.842 > 0.05$), the relationship remains insignificant, leading to the acceptance of the null hypothesis that ED has no significant impact on ROE. The estimated model is $ROE = 9.091 + 0.128ED$.

Discussion of Findings

From Hypothesis One, the findings on the adjusted R-squared of 0.001 showed that there was a variation of 0.1% on Return on Asset (ROA) in listed manufacturing firms' due to the Social and Relationship Capital (SRC). This suggests that changes in Social and Relationship Capital have a low impact on listed manufacturing firms' Return on Asset from 2014 to 2023. Moreover, the impact is positive but statistically insignificant. In the light of this, the null hypothesis that Social and Relationship Capital (SRC) has no significant impact on the Return on Asset (ROA) of listed manufacturing firms in Nigeria is accepted since the probability of $0.372 > 0.05$. This is in line with the findings of Suttipun (2020) whose study showed that reporting corporate social reporting issues as well as capital positively impacts performance.

From Hypothesis Two, the findings on the adjusted R-squared of -0.001 showed that there was a variation of -0.1% on return on equity (ROE) in listed manufacturing firms' due to the Social and Relationship Capital (SRC). This suggests that changes in Social and Relationship Capital have an inverse impact on listed manufacturing firms' return on equity from 2014 to 2023. However, the impact is statistically insignificant. In the light of this, the null hypothesis that Social and Relationship Capital have no significant impact on return on equity of listed manufacturing firms in Nigeria is accepted since the probability of $0.343 > 0.05$.

From Hypothesis Three, the findings on the adjusted R-squared of 0.002 showed that there was a variation of 0.2% on Return on Asset (ROA) in listed manufacturing firms' due to the Governance Disclosure (GD). This suggests that changes in Governance Disclosure have a direct impact on listed manufacturing firms' Return on Asset from 2014 to 2023. However, the impact is statistically insignificant. In the light of this, the null hypothesis that Governance Disclosure (GD) has no significant impact on the Return on Asset (ROA) of listed manufacturing firms in Nigeria is accepted since the probability of $0.191 > 0.05$. This is in contrast with the findings of Ayoola et al. (2021) which revealed that governance disclosure has no impact on performance.

From Hypothesis Four, the findings on the adjusted R-squared of 0.017 showed that there was a variation of 1.7 on return on equity (ROE) in listed manufacturing firms' due to the Governance Disclosure (GD). This suggests that changes in Governance Disclosure have a direct impact on

listed manufacturing firms' return on equity from 2014 to 2023. However, the relationship is statistically insignificant. In the light of this, the null hypothesis that Governance Disclosure has no significant impact on return on equity of listed manufacturing firms in Nigeria is accepted since the probability of $0.106 > 0.05$.

From Hypothesis Five, the findings on the adjusted R-squared of -0.007 showed that there was a variation of -0.7% on return on asset (ROA) in listed manufacturing firms' due to the Human Capital Disclosure (HCD). This suggests that changes in HCD have an inverse impact on listed manufacturing firms' return on asset from 2014 to 2023. However, the relationship is statistically insignificant. In the light of this, the null hypothesis that board has no significant impact on return on assets of listed manufacturing firms in Nigeria is accepted since the probability of $0.587 > 0.05$.

From Hypothesis Six, the findings on the adjusted R-squared of 0.002 showed that there was a variation of 0.2% on return on equity (ROE) in listed manufacturing firms' due to the Human Capital Disclosure (HCD). This suggests that changes in Human Capital Disclosure have a direct impact on listed manufacturing firms' return on equity from 2014 to 2023. However, the impact is statistically insignificant. In the light of this, the null hypothesis that Human Capital Disclosure (HCD) has no significant impact on the return on equity (ROE) of listed manufacturing firms in Nigeria is accepted since the probability of $0.832 > 0.05$. This is in line with the findings of Adegbe, et al. (2019) whose findings show that human capital (DIHC) insignificantly impacts performance.

From Hypothesis Seven, the findings on the adjusted R-squared of 0.000 showed that there was a variation of 0% on Return on asset (ROA) of listed manufacturing firms in Nigeria' due to the Environmental Disclosure (ED). This suggests that changes in Environmental Disclosure caused no variation on listed manufacturing firms in Nigeria' Return on asset from 2014 to 2023. Furthermore, the effect is positive and statistically insignificant. In the light of this, the null hypothesis that Environmental Disclosure (ED) has no significant effect on the Return on asset of listed manufacturing firms in Nigeria in Nigeria is accepted since the probability of $0.435 > 0.05$.

From Hypothesis Eight, the findings on the adjusted R-squared of 0.010 showed that there was a variation of 1.0% on return on equity (ROE) in listed manufacturing firms' due to the Environmental Disclosure (ED). This suggests that changes in Environmental Disclosure have a direct impact on listed manufacturing firms' return on equity from 2014 to 2023. However, the impact is statistically insignificant. In the light of this, the null hypothesis that Environmental Disclosure (ED) has no significant impact on the return on equity (ROE) of listed manufacturing firms in Nigeria is accepted since the probability of $0.842 > 0.05$. This is in contrast with the findings of Suttipun (2020) whose study revealed that environmental reporting negatively affects performance.

Findings

- i. Social and Relationship Capital (SRC) has a positive and insignificant impact on Return on Asset (ROA) of the listed manufacturing firms in Nigeria.
- ii. Social and Relationship Capital (SRC) has a positive and insignificant impact on Return on Equity (ROE) of the listed manufacturing firms in Nigeria.
- iii. Governance Disclosure (GD) has a positive and insignificant impact on the Return on Asset (ROA) of the listed manufacturing firms in Nigeria.
- iv. Governance Disclosure (GD) has a positive and insignificant impact on the Return on Equity (ROE) of the listed manufacturing firms in Nigeria.

- v. Human Capital Disclosure (HCD) has a positive and insignificant impact on the Return on Asset (ROA) of the listed manufacturing firms in Nigeria.
- vi. Human Capital Disclosure (HCD) has a positive and insignificant impact on the Return on Equity (ROE) of the listed manufacturing firms in Nigeria.
- vii. Environmental Disclosure (ED) has a positive and insignificant impact on the Return on Asset (ROA) of the listed manufacturing firms in Nigeria.
- viii. Environmental Disclosure (ED) has a positive and insignificant impact on the Return on Equity (ROE) of the listed manufacturing firms in Nigeria.

Conclusion

Integrated reporting (IR) is a holistic approach to corporate reporting that combines financial and non-financial information to provide a comprehensive view of a company's performance. Integrated Reporting is gaining popularity globally, and Nigeria is no exception, with many listed manufacturing firms adopting this approach. Hence, this study examines the impact of Integrated Reporting (IR) on the financial performance of listed manufacturing firms in Nigeria. The findings show that Integrated Reporting has a positive impact on the financial performance of listed manufacturing firms in Nigeria. However, the impacts are not significant. This shows that although integrated reporting contributes to the financial performance of manufacturing firms in Nigeria, their impacts are not significant, as there are other factors that directly and significantly impact their performance.

Recommendations

Based on the findings from this research, the following recommendations are made:

- i. Manufacturing firms should enhance their engagement with stakeholders and invest in social and relationship capital initiatives that align more closely with their core business strategies. This could involve improving community relations, fostering customer loyalty, and strengthening partnerships, as these actions could potentially translate into more significant financial performance over time.
- ii. Firms should adopt more comprehensive and transparent governance practices. They should provide detailed disclosures about their governance structures and practices, ensuring that they align with international best practices.
- iii. Manufacturing firms should focus on improving their human capital management and disclosure practices. This includes investing in employee development programs, fostering a positive work environment, and transparently reporting on these activities. By doing so, firms can better leverage their human capital to enhance financial performance and achieve a more significant impact on return on equity.
- iv. Firms should intensify their efforts in environmental sustainability and provide more detailed and comprehensive environmental disclosures. This can involve adopting greener practices, reducing environmental footprints, and transparently reporting on these initiatives. Enhancing environmental performance and disclosure may attract environmentally conscious investors and customers, thereby improving financial outcomes over time.

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