

CORPORATE RISK DISCLOSURE AND FINANCIAL PERFORMANCE OF LISTED INDUSTRIAL GOODS FIRMS IN NIGERIA

ABSTRACT

In recent years, corporate risk disclosure has gained increasing attention in corporate governance discourse due to its potential impact on financial performance. The need for transparency in reporting risks has become more critical, particularly in the industrial goods sector, which is often characterized by high operational and financial risks. This study examined the influence of corporate risk disclosure on the financial performance of listed industrial goods firms in Nigeria, a sector known for high levels of operational and financial risk. It specifically assessed how financial and operational risk disclosures affect financial performance. This study employed ex-facto research design. The study population consisted of 13 industrial goods firms listed on the Nigerian Exchange Group (NGX) as of 31st December 2023. Census sampling was applied to include the entire population. Data were collected from annual reports and corporate governance disclosures were analysed with descriptive statistics and feasible generalised least squares regression analysis. The findings found that while financial risk disclosure positively and significantly influences financial performance, operational risk disclosure has a negative but significant effect. These outcomes suggest that financial transparency boosts investor trust and confidence, enhancing financial performance, whereas disclosing operational risks may reduce investor confidence due to concerns about operational stability and profitability. This study concluded that corporate risk disclosure demonstrated a significant role in influencing financial outcomes, yet its effect varies based on the type of risk disclosed. In line with empirical findings of this study, it was recommended that firms should balance transparency with discretion by selectively disclosing operational risks that have been mitigated or managed, reducing the potential for investor concerns over operational vulnerabilities.

Keywords: Financial performance, Corporate risk disclosure, Financial risk disclosure, Operational risk disclosure, Industrial goods firms

1. INTRODUCTION

In recent years, corporate risk disclosure has gained increasing attention in corporate governance discourse due to its potential impact on financial performance (Oluwagbade et al., 2023). The need for transparency in reporting risks has become more critical, particularly in the industrial goods sector, which is often characterized by high operational and financial risks (Adejumo, 2022). Corporate risk disclosure refers to the process through which companies communicate the risks they face to their stakeholders, including market risks, credit risks, operational risks, and environmental risks (Birt et al., 2021). Effective corporate risk disclosure practices not only

enhance the decision-making process for investors but also contribute to reducing information asymmetry, which can significantly influence the financial performance of firms (Elshandidy & Neri, 2023).

The link between corporate risk disclosure and financial performance has been a subject of considerable academic inquiry, with mixed findings. Some studies argue that comprehensive risk disclosure enhances firm value by providing stakeholders with crucial information for decision-making, thus reducing uncertainty and fostering investor confidence (Jizi, 2022; Mousa & Hassan, 2022). On the contrary, inadequate or unclear risk disclosure can erode investor trust and adversely affect a firm's financial standing (Al-Hadi, Hasan & Habib, 2016). The relevance of this relationship is particularly crucial for industrial goods firms, given their exposure to macroeconomic fluctuations, regulatory changes, and environmental risks.

In Nigeria, the industrial goods sector plays a vital role in the economy, contributing significantly to employment and GDP growth. However, this sector faces several risks, including foreign exchange volatility, fluctuating raw material prices, and infrastructural deficiencies (Adekunle & Samuel, 2023). Thus, listed industrial goods firms are under increasing pressure to improve their risk disclosure practices to ensure financial sustainability and attract both local and international investors (Obiyo & Chinedu, 2023). Moreover, the Nigerian regulatory framework, through the Financial Reporting Council (FRC) and Securities and Exchange Commission (SEC), mandates listed firms to provide risk disclosures in their financial reports (Adejumo, 2022).

Despite the growing global focus on corporate risk disclosure, studies on risk disclosure practices in Nigeria, particularly in the industrial goods sector, are still in their infancy. The Nigerian business landscape, with its peculiarities such as weak institutional frameworks and fluctuating economic conditions, poses a unique context for understanding how risk disclosure affects firm performance. While international studies provide insights into the general relationship between corporate risk disclosure and financial outcomes, there is a gap in understanding how these dynamics play out in emerging economies like Nigeria (Awotomilusi et al., 2023). Recent studies highlight the importance of corporate risk disclosure in the context of corporate governance, especially in emerging markets like Nigeria, where governance mechanisms are still evolving (Abdul-Rahman & Zakaria, 2023). The quality of risk disclosure has been shown to influence firm

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performance indicators such as Return on Assets (ROA) and stock market returns (Onyekwelu et al., 2022).

This study aimed to bridge that gap by examining the relationship between corporate risk disclosure and financial performance of listed industrial goods firms in Nigeria. Specifically, the study investigated how financial and operational information disclosed by firms influence key financial performance indicators such as return on assets (ROA). By investigating the effect of corporate risk disclosure in this sector, the study contributes to the growing body of literature on corporate governance, financial reporting, and risk management in emerging economies.

2. LITERATURE REVIEW

This section outlines the relevant literature reviewed and the theoretical frameworks that underpin this study. The literature review focuses on previous research examining the relationship between corporate risk disclosure and financial performance. Studies on corporate governance, risk management practices, and regulatory requirements related to risk reporting are also discussed to provide a comprehensive understanding of the topic.

2.1 Conceptual Review

This section provides a clear definition of the key variables investigated in this study to ensure a comprehensive understanding of their roles and relationships.

2.1.1 Financial Performance

According to Dagunduro et al. (2022), financial performance is defined as the ability of a firm to generate profits from its operations over a specified period. It is commonly measured through profitability ratios such as return on assets (ROA), return on equity (ROE), and net profit margin, which indicate how efficiently a firm uses its resources to produce earnings. Kolawole et al. (2023) described financial performance as how well a firm's financial outcomes are reflected in its stock price and overall market valuation. This view assesses a company's financial success based on indicators like earnings per share (EPS), stock returns, and market capitalization, which represent the firm's performance in the eyes of investors (Dagunduro et al., 2024). Financial performance is the capacity of a firm to generate positive cash flows from its operations, ensuring liquidity and financial stability (Aluko et al., 2023). This definition emphasizes the importance of cash flow generation and sustainability, which is critical for meeting short-term obligations and funding future growth (Adewara et al., 2023; Boluwaji et al., 2024).

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Dada et al. (2023) regarded financial performance as the measure of how effectively a firm manages its resources (assets, capital, and expenses) to achieve optimal output and returns. Efficiency ratios such as asset turnover and operating margin are used to evaluate how well the firm utilizes its resources to maximize profitability and minimize costs (Dagunduro et al., 2024; Lawal et al., 2024). Financial performance is the firm's ability to create value for its stakeholders, including shareholders, employees, customers, and creditors. This definition includes not only profitability and market value but also the company's long-term sustainability, growth potential, and its ability to deliver financial and non-financial benefits to stakeholders (Asubiojo et al., 2023; Dagunduro et al., 2023). Each of these definitions highlights a different aspect of financial performance, reflecting its multidimensional nature in business and finance.

2.1.1.1 Return on Assets

Dada et al. (2023) defined return on assets (ROA) as a financial ratio that measures a company's ability to generate net income from its total assets. It indicates how efficiently a firm uses its assets to produce profits, with a higher ROA reflecting better asset utilization and overall profitability. Dagunduro et al. (2023) described return on assets as a key performance indicator that calculates the percentage of profit a company earns relative to its total assets. It is used by investors and analysts to assess how effectively management is using the company's resources to achieve financial returns. ROA is a measure of operational efficiency that shows how well a company converts its investments in assets into earnings. It evaluates the effectiveness of asset management, helping stakeholders understand how efficiently the firm is leveraging its asset base to generate income (Awotomilusi et al., 2023; Kolawole et al., 2023). Each definition emphasizes a different aspect of ROA, ranging from profitability and performance to efficiency.

2.1.2 Corporate Risk Disclosure

According to Oluwagbade et al. (2023), corporate risk disclosure refers to the process by which a firm provides information about potential risks that could affect its financial performance and operations, as required by regulatory bodies. This includes compliance with legal and industry-specific requirements to ensure transparency and protect investors from unforeseen risks. Awotomilusi et al. (2023) described corporate risk disclosure as the communication of risk-related information to stakeholders, including shareholders, auditors, and regulators, as part of a firm's

corporate governance practices. It reflects the organization's commitment to transparency and accountability in managing and mitigating risks. Corporate risk disclosure involves the strategic release of information regarding the risks a firm face, including market, operational, financial, and legal risks. This information helps stakeholders assess the company's risk management strategies and its readiness to address potential challenges that may impact its long-term viability (Igbekoyi et al., 2024).

Corporate risk disclosure is the dissemination of risk-related information that helps investors make informed decisions. It includes the identification, measurement, and explanation of both current and potential risks, enabling investors to assess the risk profile of a firm before investing (Al-Hadi et al., 2016). Corporate risk disclosure is the voluntary reporting of risks beyond mandatory requirements, where firms provide additional insights into their risk environment. This often includes forward-looking statements and qualitative risk assessments, aimed at building investor confidence and differentiating the firm through enhanced transparency (Birt et al., 2021). These definitions highlight different facets of corporate risk disclosure, emphasizing its regulatory, strategic, and investor-related significance.

2.1.2.1 Financial Risk Disclosure

According to Oluwagbade et al. (2023), financial risk disclosure refers to the mandatory or voluntary reporting of financial risks by a firm to comply with regulatory requirements, aimed at ensuring transparency about potential financial uncertainties that could impact the company's stability or performance. Financial risk disclosure is the provision of detailed information regarding the financial risks a company faces, such as credit risk, liquidity risk, and market risk. It allows investors to assess the risk exposure of the firm and make informed decisions about investing or divesting (Ogbuga et al., 2022). Financial risk disclosure is a critical element of corporate governance, where companies communicate the financial risks associated with their business operations, ensuring that shareholders and stakeholders are aware of the risks that could affect profitability and firm value (Abubakar et al., 2022).

Financial risk disclosure involves the systematic reporting of risks related to a firm's financial strategies and decisions, such as debt levels, currency exposure, and interest rate changes. This disclosure informs stakeholders about how financial risks are being managed to protect the company's long-term financial health (Biswas et al., 2021). Financial risk disclosure is the process

of communicating the potential financial threats that could impair a company's performance. It includes revealing risks that may affect revenue, profits, and overall financial outcomes, providing stakeholders with insights into the company's risk profile and resilience (Gadzo et al., 2019). Each of these definitions highlights different aspects of financial risk disclosure, including its regulatory, governance, investor, strategic, and performance-related implications.

2.1.2.1 Operational Risk Disclosure

Operational risk disclosure is the formal reporting of risks related to a firm's internal processes, systems, and personnel, required by regulatory frameworks. It ensures compliance with standards aimed at managing and mitigating risks that arise from daily business operations (Awotomilusi et al., 2023). Operational risk disclosure refers to the communication of risks associated with the internal functioning of a firm, including process failures, technology breakdowns, and human errors. It forms part of a company's governance practices, promoting transparency and accountability in managing operational vulnerabilities (Muriithi & Waweru, 2017). Operational risk disclosure is the detailed reporting of risks arising from inadequate or failed internal processes, people, systems, or external events. It informs stakeholders about the measures taken to manage and mitigate these risks, contributing to the firm's overall risk management strategy (Anetoh et al., 2021).

Operational risk disclosure is the process by which a company provides investors with information on potential operational risks that could disrupt its business activities. This transparency helps investors assess the firm's operational stability and the effectiveness of its risk management practices (Tapang et al., 2022). Operational risk disclosure involves reporting risks that may impact the execution of a company's strategic objectives, including supply chain disruptions, regulatory non-compliance, and system failures. This information is critical for stakeholders to understand the operational challenges that could affect the firm's long-term success (Onyekwelu et al., 2022). These definitions highlight the different facets of operational risk disclosure, emphasizing its importance in governance, regulatory compliance, risk management, investor relations, and strategic planning.

2.2 Theoretical Review

This section provides an overview of the theoretical frameworks that underpin the relationship between corporate risk disclosure and firm performance, elucidating the linkages between these two critical constructs.

2.2.1 Agency Theory

Agency theory was originated from the work of Stephen Ross and Barry Mitnick in 1973 and was further developed and popularized by Michael Jensen and William Meckling in 1976 (Jensen & Meckling, 1976). Agency theory delves into the dynamics between principals (e.g., shareholders) and agents (e.g., managers) within organizations, exploring how conflicts of interest between them can lead to agency problems. In an ideal scenario, managers are expected to act in the best interests of shareholders, who are the principals. However, due to differing objectives and information asymmetry, agents may prioritize their interests over those of the principals. In this context, corporate risk disclosure serves as a mechanism for mitigating information asymmetry, allowing shareholders to better understand the risks associated with their investments. By transparently reporting risks, management can align their interests with those of shareholders, potentially enhancing firm performance through improved trust and reduced perceived risk. Khan et al. (2016) argue that agency theory falls short in addressing the complexities of modern corporate governance. Specifically, institutional investors frequently promote a wider approach to corporate social responsibility (CSR) and sustainability practices, which can clash with the theory's limited emphasis on solely maximizing shareholder wealth.

2.2.2 Stakeholder Theory

Stakeholder theory was introduced by Professor Edward Freeman in 1984. This theory posits that companies have obligations to a diverse range of stakeholders beyond just shareholders, including employees, suppliers, customers, government entities, investors, and the community (Dagunduro et al., 2022; Oluwagbade et al., 2023). It views a company as embedded within a complex network of varying interests, emphasizing that its success relies on addressing the needs of all stakeholders, not solely those of shareholders. Stakeholder theory expands the focus beyond shareholders to include various stakeholders, such as employees, customers, and regulators. This theory suggests that effective corporate risk disclosure can enhance stakeholder relationships and foster a positive corporate reputation. By addressing the concerns of multiple stakeholders, firms can create a more stable operational environment, which may contribute to improved financial performance.

Stakeholder theory offers new insights into the rationale for risk management, particularly concerning financial risks. However, a significant limitation of this theory is the challenge of satisfying all stakeholders simultaneously. Eric and Alan (2009) argued that it is practically impossible to comprehensively manage the interests of all stakeholders due to their wide-ranging nature. This theory has been extensively used to investigate different scenarios in financial performance and risk management, such as assessing whether risk management creates value in the context of business mergers and examining the influence of environmental factors on a company's profitability.

2.2.3 Signalling Theory

Signaling Theory was primarily developed by Michael Spence in his seminal work during the 1970s, particularly in his 1973 paper titled "Job Market Signaling" (Spence, 1973). This theory plays a critical role in corporate communication, suggesting that companies disclose risk information as a signal of their quality and commitment to transparency. By openly communicating their risk management strategies and potential risks, firms can convey their competence and reliability to investors and other stakeholders, which may positively influence their financial performance (Botosan, 1997). Signaling Theory is applicable across various contexts, including finance, economics, and marketing, as it explains how one party (the sender) conveys information to another party (the receiver) through signals (Spence, 2002). In the corporate environment, it is often utilized to understand how companies communicate their quality or value to investors and stakeholders. For instance, firms may use financial disclosures, credit ratings, or dividends as signals to indicate their stability and performance potential (Frankel & Li, 2004). By sending these signals, companies aim to reduce information asymmetry, enhance trust, and improve their market positioning, ultimately influencing investment decisions and perceptions of firm value (Miller, 2002). Dye (2001) contended that firms can manipulate signals to project a favorable image without actual substance. This practice, known as "window dressing," involves presenting information in a misleadingly positive manner, resulting in a disconnect between the signal and the firm's true performance. For example, companies may inflate financial metrics or selectively disclose only positive information while omitting negative details, which can mislead investors and lead to market inefficiencies.

2.2.4 Theoretical Framework

The theoretical framework for this study draws on agency theory, which explains the dynamics between shareholders (principals) and management (agents) in ensuring that corporate risks are properly managed and disclosed. It also integrates stakeholder theory to highlight the importance of risk disclosure in addressing the needs of various stakeholders, including investors, regulators, and creditors. Additionally, signalling theory is used to explain how firms communicate their risk management effectiveness through disclosure practices, influencing market perceptions and financial outcomes. These frameworks provide the foundation for examining the relationship between corporate risk disclosure and financial performance in the Nigerian industrial sector. Together, these theories provide a robust framework for understanding how corporate risk disclosure impacts financial performance, emphasizing the importance of transparency and communication in fostering trust, stakeholder engagement, and ultimately, enhanced financial outcomes.

2.3 Empirical Review

This study undertook an empirical review to align with its objectives, systematically examining existing literature and research relevant to corporate risk disclosure and financial performance. The empirical review involved evaluating quantitative and qualitative data, assessing methodologies, and synthesizing insights to build a comprehensive understanding of how effective risk disclosure practices can influence a firm's financial outcomes.

2.3.1 Financial Risk Disclosure and Financial Performance

Oluwagbade et al. (2023) investigated how revealing operational risks affects the financial performance of institutions listed on the Nigerian Exchange Group (NGX). The study used ex-post facto and panel data research designs, with data gathered from audited financial statements of publicly traded financial institutions during a ten-year period (2012-2021). The study examined thirty-four listed financial organisations, including 19 deposit money banks and 15 insurance businesses on the NGX. Due to the availability of comprehensive data, a purposive sampling technique was used to investigate 20 of these firms. Descriptive statistics and panel regression analysis were used. The findings revealed that financial risk disclosure has a positive and significant effect on the financial performance of listed financial institutions in Nigeria. Mercia et al. (2021) investigated the impact of risk management and the disclosure of hedging financial instruments on market performance for public corporations listed on Brazil's B3 new market. The

study, which included 54 organisations, used a correlational research design using data from 2017 to 2019 to assess 162 observations. Although the findings showed that risk management has a favourable impact on hedge disclosure procedures, the expected positive association between risk management and accounting disclosure quality in terms of organisational success (market value) was not detected.

Wood and McConney (2021) conducted research in Barbados to determine the impact of risk management on the financial performance of the commercial banking industry. The study used an ex-post facto research design, with quarterly data from 2000 to 2015 obtained from secondary sources. The study found that several risks, including capital, credit, liquidity, interest rate, and operational risks, had a statistically significant impact on the financial performance of Barbados' commercial banking industry. Similarly, Biswas et al. (2021) investigated how credit risk affects the profitability of public and private sector banks in Bangladesh. The descriptive research design included yearly reports from 20 commercial banks for a five-year period (2014-2018). The multiple regression analysis revealed significant positive relationships between return on assets (ROA) and the capital adequacy ratio (CAR) and the cost-to-loan assets ratio. However, a significant negative relationship was observed between ROA and non-performing loans (NPL) and bank size, while the cash reserve ratio showed a statistically insignificant relationship with ROA.

Wang (2020) conducted a secondary study to analyse the impact of foreign exchange risk on the financial performance of multinational corporations in China, suggesting that managing foreign exchange risk could improve these firms' financial performance. Onsongo et al. (2020) investigated the impact of financial risk on Kenyan companies listed on the Nairobi Securities Exchange (NSE), focussing on the different effects of credit, liquidity, and operational risk on return on equity (ROE). Furthermore, Abubakar et al. (2022) examined the impact of credit risk management on the financial performance of Nigerian deposit money institutions. The study revealed that measures such as the capital adequacy ratio, return on assets, and loans-to-deposit ratio had a favourable and significant impact on financial performance, while metrics like the non-performing loans ratio, cost-to-income ratio, and liquidity ratio did not show a significant effect on financial performance. Tapang et al. (2022) investigated the moderating effect of hedge accounting on the relationship between financial risk management and insurance company performance in Nigeria. The analysis indicated that financial risk management had a major impact

on performance, whereas hedge accounting did not. Furthermore, Sulaiman and Ibrahim (2021) evaluated the impact of financial derivatives on the profitability of selected Nigerian deposit money institutions. The study found that financial derivatives, loans, and advances to consumers had a favourable and significant impact on profitability, whereas financial derivative liabilities had a negative and insignificant effect.

A survey of empirical studies reveals a strong interest in corporate risk disclosure among politicians and scholars in industrialised economies. However, the number of studies on corporate risk disclosure is low, particularly in Nigeria with its turbulent business environment, indicating a geographical gap in the research field. The relationship between financial risk disclosure and financial success is still unclear, since few studies, including those by Abubakar et al. (2022), Biswas et al. (2021), Mercial et al. (2021), Wang, 2020, and Wood and McConney (2021), have failed to establish a consensus. Furthermore, while many studies have investigated the relationship between financial risk disclosure and firm financial performance, most of them have focused on deposit money banks and insurance firms, with little attention paid to industrial goods firms. The study's hypothesis was formulated as follows:

H₀₁: Financial risk disclosure has no significant effect on the financial performance of listed industrial goods firms in Nigeria

2.3.2 Operational Risk Disclosure and Financial Performance

Numerous research papers have investigated the relationship between operational risk disclosure and firm performance. Awotomilusi et al. (2023) looked at how operational risk disclosure affected the financial performance of Nigerian listed banking institutions. This study used both ex-post facto and panel data research designs. The data was derived from audited financial accounts of Nigerian listed financial institutions. The study spanned ten years, from 2012 to 2021. The study's population consisted of thirty-four listed financial organisations, including 19 deposit money banks and 15 insurance businesses listed on the Nigerian Exchange Group. Due to the availability of comprehensive data, the study used a purposive sampling technique to evaluate 20 organisations: 10 deposited money banks and 10 insurance firms listed on NGX. The data collected were analysed using both descriptive statistics and panel regression analysis. The results showed that operational risk disclosure had a positive and significant effect on the financial performance of listed financial institutions in Nigeria.

Naibaho and Mayayogini (2023) investigated the impact of operational, credit, and liquidity risks on business performance, with corporate governance as a moderating factor. The study found that operational and credit risk have no substantial impact on a company's performance, however credit risk has a negative effect. Furthermore, it was revealed that corporate governance can improve relationships and reduce the negative impact of liquidity risk on business performance. Similarly, Anetoh et al. (2021) investigated how operational and credit risks affect the firm value of Nigeria's listed deposit banks. The findings revealed that credit risk had a considerable and negative influence on the firm value of Nigerian deposit money banks, whereas operational risk had a significant and positive impact on the firm value.

In a different study, Sundus et al. (2020) investigated how operational risk factors affected the financial success of insurance companies listed on the Kuwait Stock Exchange (KSE) between 2009 and 2017. The data revealed that operational risk and credit risk had the greatest impact on the financial performance of Kuwaiti insurance companies, whereas liquidity risk had no statistically significant effect on their performance. In addition, Gadzo et al. (2019) investigated how operational and credit risk affected the financial performance of universal banks. The findings found that credit risk had a negative influence on financial performance, as did operational risk on the financial performance of Ghana's universal banks. The study also identified bank-specific characteristics such as asset quality, bank leverage, cost-to-income ratio, and liquidity as having a beneficial impact on the financial performance of universal banks.

Muriithi and Waweru (2017) conducted another study to evaluate the association between operational risk and company value in Kenyan commercial banks. The study discovered an inverse relationship between operational risk and business value. Furthermore, Okpala et al. (2021) investigated how disclosures about strategic risk management, technological risk management, and empowerment risk management affected business performance, as evaluated by return on equity. The findings found that enterprises gained significantly and favourably from strategic risk management disclosure, technological risk management disclosure, and empowerment risk management disclosure. Similarly, Odigbo et al. (2022) investigated the effect of enterprise risk management disclosure (ERMD) on the financial performance of deposit money banks in Nigeria. The findings demonstrated a favourable and significant association between ERMD and the long-term financial performance (TQ and EPS) of Nigeria's listed deposit money banks. Finally, Ogbuga

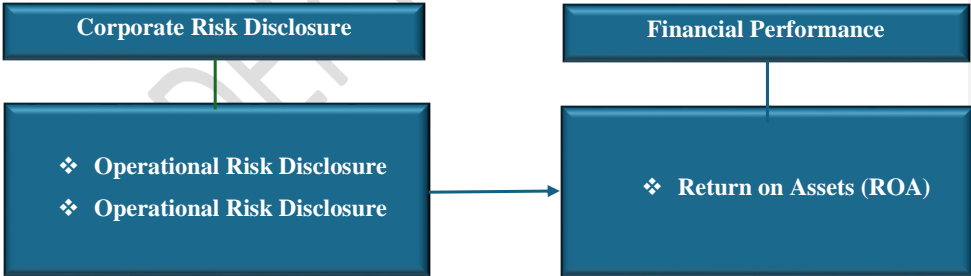
et al. (2022) evaluated how risk management affects the financial performance of deposit money banks in Kaduna state. The study found that credit risk had a negative influence on deposit money institutions' financial performance, whereas operational risk had a favourable impact.

According to the empirical review, officials and scholars in a developed country have expressed an interest in business risk disclosure. However, studies on corporate risk disclosure are scarce, particularly in Nigeria, where the business climate is very dangerous and volatile, which might be attributed to a geographical gap in the study. The relationship between operational risk disclosure and financial performance is unknown, as a small number of studies (Anetoh et al., 2021; Odigbo et al., 2022; Ogbuga et al., 2022; Okpala et al., 2021; Naibaho & Mayayogini, 2023) investigating this topic have failed to establish an agreement. Furthermore, while various studies have assessed the relationship between operational risk disclosure and financial performance of companies, most of them have focused on deposit money banks insurance firms, with relatively little attention given to industrial goods firms. The study's hypothesis was formulated as follows:

H₀₂: Operational risk disclosure has no significant effect on the financial performance of listed industrial goods firms in Nigeria

2.4 Conceptual Framework

Figure 1 shows the interactions between the independent variable (Risk Management Committee) and the dependent variable (earnings quality).



Source: Authors' Concepts (2024)

3. METHODOLOGY

This study employed *expo-facto* research design and data were collected from annual reports and corporate governance disclosures. The selection of *ex-post facto* research design was made to gather existing data without any manipulation. The study population consisted of 13 industrial

goods firms listed on the Nigerian Exchange Group (NGX) as of 31st December 2023. These firms were chosen because they represent the industrial goods sector and are publicly listed companies. They provide a representative sampling of the sector's businesses. Census sampling was applied to include the entire population. Table 3.1 lists the 13 industrial products businesses listed on the Nigeria Exchange Group (NXG) as of 31st December 2023.

Table 1: Population of the Study

S/N	Companies	Year of Listing
1	Berger Paints Nigeria Plc	1973
2	Beta Glass Plc	1989
3	Cement Company of Northern Nigeria Plc	1979
4	Dangote Cement Plc	2010
5	Flour Mills of Nigeria Plc	1978
6	Guinness Nigeria Plc	1963
7	International Breweries Plc	1971
8	LaFarge Africa Plc	1974
9	May & Baker Nigeria Plc	1979
10	Nigerian Breweries Plc	1973
11	PZ Cussons Nigeria Plc	1962
12	United Biscuits Nigeria Plc	1962
13	Unilever Nigeria Plc	1973

Source: Nigeria Exchange Group (NXG) (2023)

The study covered 12 years from 2012 to 2023, which corresponds with the transition of the Nigerian Stock Exchange to the NGX. The study utilized both descriptive statistics and inferential statistics, such as panel regression and correlational analysis, to analyse the data comprehensively.

3.1 Model Specification

The econometric model used in this study is based on the framework developed by Oluwagbade et al. (2023) to examine the relationship between the independent and dependent variables. It is outlined as follows:

$$FP = \alpha_0 + \beta_1FRD_{it} + \beta_2ORD_{it} + \varepsilon_{it}$$

Where:

FP = Financial Performance

FRD = Financial Risk Disclosure

ORD = Operational Risk Disclosure

α_0 = Constant

Σ = Stochastic Error Term

β_0 = Intercept

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β_1, β_2 = The Coefficients of the independent variable

The *a-priori* expectation = $\beta_1, \beta_2 > 0$, this implies that a positive correlation is expected between the explanatory variables and the dependent variable.

3.2 Measurement and Description of Variables

Table 1 shows the description, measurement, and data source of the investigated variables of this study.

Table 2: Operationalization and Description of Research Variables

SN	Variable	Acronym	Role	Measurement	Source
1a	Return on Assets	ROA	Dependent	Measured as earnings after tax divided by the total asset (%)	Awotomilusi et al. (2023); Dada et al. (2023)
2a	Financial Risk Disclosure (FRD)		Independent	Measured as a dummy where "1" is assigned to the firm with annual reports with financial risk management information, such as credit risk, liquidity risk, derivative risk, interest rate risk etc. and "0" for otherwise.	Apochi et al. (2020); Oluwagbade et al. (2023)
2b	Operational Risk Disclosure	ORD	Independent	Measured as a dummy where "1" is assigned to the firm with annual reports with operational risk management information, such as technology risk, legal risk, reputational risk, environmental risk etc. and "0" for otherwise.	Gadzo et al. (2019); Awotomilusi et al. (2023)

Source: Researcher's compilation (2024)

3.3 Data Analysis Techniques

This study employed both inferential (panel regression analysis, correlational analysis, etc.) and descriptive (mean, median, variance, standard deviation, skewness, and kurtosis) statistics to examine the data.

4. DATA ANALYSIS AND DISCUSSION OF FINDINGS

The features of the variables employed, data analysis, and study findings are all covered in this section. These statistics summarise the variable distribution and features.

4.1 Descriptive Statistics

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Each variable's statistics, distribution, and features across datasets are all included in Table 3. In this instance, data was collected from 13 entities during twelve years, with 156 observations for each variable. The ROA has a mean of 15.66. This suggests that, on average, the sampled firms can generate 15.66% profit on assets. A standard deviation of 15.62% suggests a significant variation in ROA among sampled firms' ROA. Some firms are outperforming the average by a considerable margin while others are worse off. Skewness of 1.29 indicates that the ROA distribution is positively skewed. The distribution has a kurtosis of around 3.03, which is relatively more than 3.

Additionally, the average financial risk disclosure is 0.44. This means that approximately 43.59% of the firms disclose information on financial risk management in their annual reports. By implication, many firms continue to lack complete financial risk information in their annual reports. In terms of variation, a standard deviation of 0.50 suggests a balanced distribution of firms that publish financial risk management information (since it is a binary variable). The FRD distribution is positively skewed in comparison to its shape, with a skewness of 0.26. The distribution's kurtosis is considerably lower at 1.07.

Firms, on the other hand, have an average value of 0.38, or approximately 38%. This implies that approximately 37.82% of firms provide information on operational risks in their annual reports. The standard deviation of 0.49 suggests a balanced distribution. The distribution has a positive skewness of 0.50 with a kurtosis of around 1.25. Therefore, the sampled firms are generally profitable with a significant number of firms disclosing information on financial risk while a significant number of firms do not disclose information on operational risk.

Table 3: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
ROA	156	15.67	15.62	1.52	56.5	1.29	3.03
FRD	156	0.44	0.5	0	1	0.26	1.07
OPD	156	0.38	0.49	0	1	0.50	1.25

Results obtained from the measurement of variables

Source: Researcher's Computation (2024)

4.2 Test of Variables

This section includes pre- and post-estimation testing to guarantee that the study's findings are reliable and valid. To confirm model efficiency, pre-estimation procedures such as the unit root

test, correlation analysis, and multicollinearity were used, as well as post-estimation tests like the Hausman and heteroscedasticity tests.

4.2.1 Pre-estimation Test

The following tests were performed to check that the selected model's assumptions were met and that the data used for analysis was adequate.

4.2.1.1 Panel Unit Root Test of the Variables

The results of the panel unit root test conducted using Harris-Tzavalis and Hadri LM test statistics are shown in Table 4. The null hypothesis of these tests states that panels are non-stationary while the alternate hypothesis states that panels are stationary. If the p-value is less than 0.05, the null hypothesis is rejected; if not, it is accepted. The p-values for ROA, FRD, and ORD were all less than 0.05 suggesting that all variables were stationary at level.

Table 4: Panel Unit Root Test

Variable	Harris-Tzavalis unit-root test		Hadri LM Stationary test	
	Z-statistics	P-value	Z-Statistics	P-value
ROA	-2.18	0.01	7.25	0.00
FRD	-6.97	0.00	3.19	0.00
ORD	-7.16	0.00	2.08	0.02

The table shows unit root test results.

Source: Researcher's Computation (2024)

4.2.1.2 Correlation Analysis

Table 5 presents the findings of a pairwise correlation test conducted. Between ROA and FRD, the test results revealed a very weak positive connection with a coefficient of 0.18 and a p-value of 0.00. Furthermore, the coefficient value of 0.09 and a p-value of 0.25 indicate an insignificant and weak positive association between ROA and ORD. Accordingly, the correlation coefficient of 0.03 and a p-value of 0.67 indicates a very negligible positive linear association between FRD and ORD.

Table 5: Pairwise Correlation

	ROA	FRD	ORD
ROA	1.00	1.00	
FRD	0.18	1.00	

	0.00	0.00	
ORD	0.09	0.03	1.00
	0.25	0.67	

The table above shows correlation results.

Source: Researcher's Computation (2024)

4.2.1.3 Multicollinearity

The extent of multicollinearity in the data distribution was determined using the variance inflation factor (VIF) analysis was reported in Table 6. In this regard, the VIFs of FRD and ORD are both 1.00 while the tolerance values for FRD and ORD are 0.99 and 0.99 respectively. This indicates that there is no multicollinearity among the independent variables.

Table 6: Variance Inflation Factor

Variables	VIF	1/VIF
FRD	1.00	0.99
ORD	1.00	0.99
Mean VIF	1.00	

The table presents the VIF values of independent variables.

Source: Researcher's Computation (2024)

4.2.2 Post-Estimation Tests

The Ramsey RESET test was used to verify the functional forms of the regression analysis in the Table 7. The null hypothesis asserts that the model is correctly defined, whereas the alternative hypothesis states that the model is incorrectly specified. Therefore, a p-value (p-value > 0.05) suggests that there is no significant evidence of an incorrectly specified form otherwise, the functional form is incorrectly specified. The test results indicate an f-statistic of 1.60 and a p-value of 0.21, demonstrating that the model is correctly specified. Additionally, the Breusch-Pagan/Cook-Weisberg test was used to determine heteroskedasticity or otherwise. The null hypothesis is homoscedasticity, or constant variance, whereas the alternate hypothesis is varying variance at different values. A significant p-value less than p-value < 0.05 indicates heteroskedasticity, otherwise homoskedasticity. A chi-square of 5.96 with a p-value of 0.01 reveals substantial evidence of heteroskedasticity in the residuals of the study's model.

The Shapiro-Wilk test was employed again to determine whether the variables have a normal distribution. The null hypothesis claims that the data has a normal distribution, whereas the alternative hypothesis states that it does not. If the p-value is greater than 0.05, accept the null

hypothesis; otherwise, reject it. Accordingly, the data is normally distributed, as indicated by the p-value of 0.52. Furthermore, the Wooldridge test was used to identify autocorrelation in the data distribution. A significant p-value indicates no first-order autocorrelation otherwise first-order autocorrelation. An f-statistic of 7.89 and a p-value of 0.02 indicates first-order autocorrelation.

Also, The F-test, on the other hand, determines the appropriateness of the fixed effects model in comparison with OLS. An f-statistic of 299.72 and a p-value of 0.00 indicates fixed effect is more efficient. The Hausman test was performed to determine the accuracy of the estimate between the random effect model and the fixed effect model. The test statistic is 3.24, with a p-value of 0.2 indicating the random effect is more appropriate. The Breusch and Pagan Lagrange multiplier test was performed to determine the accuracy of the estimate between the random effect model and the pooled OLS. The test statistic is 729.31, with a p-value of 0.00 indicating the random effect model is more appropriate.

Table 7: Post-Estimation Test Results

Test	F-Statistics	P-value
Ramsey RESET test	1.60	0.21
Breusch-Pagan / Cook-Weisberg test for Heteroscedasticity	5.96	0.01
the Shapiro-Wilk test	-0.05	0.52
Wooldridge test	7.89	0.02
F test that all $u_i=0$: F (12, 141)	299.72	0.00
Breusch and Pagan Lagrangian multiplier test for random effects	729.31	0.00
Hausman Test	3.24	0.00

The table above shows the results of post-estimation tests.

Source: Researchers' Computation (2024)

4.3 Fixed Effect Model, Random Effect Model, and Ordinary Least Square Model.

The significance of the entire model is tested using the F-statistics, as seen in Table 8. The ROA was not significantly explained by the independent variable, according to the OLS's f-statistic of 3.11 and p-value of 0.05. The R-squared of 0.04 indicates that the model only explains 4% of the variance in ROA. According to this model, FRD was significant while ORD was not. The p-value of 0.94 and the F-statistic of 0.06, using the Fixed effect model, suggest that the predictors do not collectively affect ROA. All independent variables do not significantly influence the ROA. However, under the random effect model, the Wald statistic is 0.13 with a p-value of 0.94 implying an insignificant predictive power. Based on this, the study used feasible generalized least squares to account for autocorrelation and heteroskedasticity.

Table 8: Regression Results

FR	Pooled OLS			Fixed effects regression			Random-effects Model		
	Coeff.	t	P> t	Coeff.	z	P>z	Coeff	t	P> t
FRD	5.48	2.20	0.03	0.11	0.20	0.84	0.13	0.24	0.81
ORD	2.80	1.10	0.27	-0.16	-0.30	0.77	-0.15	-0.27	0.79
_cons	12.22	6.48	0.0	15.68	39.05	0.00	15.67	3.71	0.00
F (4,227)	3.11			0.06					
Prob > F	0.05			0.94					
Wald chi Square							0.13		
Prob > F							0.94		

The table above shows the regression results of the fixed effect model, random effect model, and pool OLS model.

Source: Researcher's Computation (2024)

4.4 Corporate Risk Disclosure and Financial Performance of Listed Industrial Goods Firms in Nigeria.

The null hypothesis that all the coefficients are jointly zero is tested via the Wald statistics as displayed in Table 9. Even though the test result displays a p-value of 0.00 and a Wald chi-square of 1692.86, this extremely low p-value suggests that all independent variables account for a considerable portion of the variation in ROA. With a coefficient of 0.24 and a p-value of 0.00, the regression results specifically show that financial risk disclosure has a positive and significant influence on return on assets. This direct relationship suggests that an increase in financial risk disclosure by one additional disclosure tends to increase ROA by 0.24 units, therefore, enhancing financial performance. This study's results are in line with those of Oluwagbade et al. (2023), who how operational risks affect the financial performance of institutions listed on the Nigerian Exchange Group (NGX).

Additionally, Table 10's results indicate that operational risk has a statistically significant negative impact on financial performance, with an ORD coefficient of -0.17 and a p-value of 0.00. An increase in operational risk disclosure is linked to a 0.17-unit decrease in ROA, meaning that as ORD increases, ROA also decreases, lowering financial performance. This finding also lends credence to the research conducted by Gadzo et al. (2019), Naibaho and Mayayogini (2023), Muriithi and Waweru (2017) and Anetoh et al. (2021) which investigated how operational and credit risks affect the firm value of Nigeria's listed deposit banks. However, the study's findings negate Awotomilusi et al. (2023)'s results.

Table 9: Feasible Generalized Least Squares Regression Analysis

ROA	coef	Std. Err.	P>z
FRD	0.24	0.008	0.000
ORD	-0.17	0.005	0.000
_cons	16.58	41.64	0.000
Wald chi2(3) =	1692.86		
Prob > chi2 =	0.0000		

The table above shows the regression results.

Source: Researcher's Computation (2024)

4.5 Discussion of Findings

In recent years, corporate risk disclosure has gained increasing attention in corporate governance discourse due to its potential impact on financial performance (Oluwagbade et al., 2023). The need for transparency in reporting risks has become more critical, particularly in the industrial goods sector, which is often characterized by high operational and financial risks (Adejumo, 2022). This study investigated the effect of corporate risk disclosure on the financial performance of listed industrial goods firms in Nigeria. Specifically, this study assessed the effect of financial risk disclosure and operational risk disclosure on the financial performance. The regression results found that financial risk disclosure had positive and significant effect on the financial performance of listed industrial goods firms in Nigeria. The positive and significant effect of financial risk disclosure on financial performance indicates that when firms transparently disclose financial risks, such as market risk, credit risk, or liquidity risk they are likely to see improved financial performance. This positive impact may arise because investors and stakeholders appreciate transparency in a firm's risk management approach, which builds trust and attracts investment. Additionally, disclosing financial risks may signal that the firm has robust risk management practices, reassuring stakeholders of the firm's stability and resilience.

However, operational risk disclosure had negative but significant effect on financial performance. This suggests that revealing operational risks, such as risks related to production processes, supply chain issues, or regulatory compliance could have an adverse impact on performance. This negative effect may stem from concerns among investors about the potential for disruptions in the firm's day-to-day operations, which might increase the firm's perceived risk profile and lower investor confidence. Operational risks are often more immediate and can directly impact

production and profitability, potentially causing stakeholders to view the firm as more vulnerable to operational challenges.

These findings align with recent studies and theoretical frameworks, providing a nuanced understanding of the role of financial and operational risk disclosures on firm performance. Recent literature supports the notion that risk disclosures impact financial performance, but the effects may vary depending on the type of risk and the perceptions of different stakeholders (Oluwagbade et al., 2023; Al-Maghzom et al., 2022). According to stakeholder theory, firms are expected to consider the interests of various stakeholders, including investors, employees, and regulators, in their disclosure practices (Freeman et al., 2018). Financial risk disclosure aligns with stakeholder expectations for transparency in financial stability and risk management, which enhances trust and engagement. Recent studies show that stakeholders respond positively to financial transparency as it reduces information asymmetry and fosters accountability (Agyemang et al., 2021). In contrast, operational risk disclosure may raise concerns among stakeholders about the firm's immediate vulnerabilities, potentially leading to a decrease in stakeholder confidence due to perceived operational fragility (Akpan & Amran, 2022).

Signalling theory posits that firms communicate valuable information to external parties to manage perceptions and reduce information asymmetry (Spence, 1973). Financial risk disclosures serve as positive signals, indicating that a firm is proactive in managing financial risks and maintaining stability, thereby attracting investors and enhancing performance (Healy & Palepu, 2021). Empirical findings by Chen et al. (2023) suggest that transparent financial risk disclosures strengthen market perceptions of firm resilience. Conversely, disclosing operational risks can signal potential threats to a firm's operational efficiency, potentially diminishing investor confidence and reducing firm valuation (Zhao & Zhang, 2023).

Agency theory addresses conflicts of interest between principals (e.g., shareholders) and agents (e.g., managers), particularly when information asymmetry exists (Jensen & Meckling, 1976). Transparent financial risk disclosure helps mitigate agency problems by reassuring shareholders that managers are actively managing risks and committed to protecting shareholder value. This alignment of interests promotes trust and can improve firm performance, as seen in similar findings from recent studies (Saeed & Bashir, 2022). However, operational risk disclosure might exacerbate agency issues, as it can reveal inefficiencies in operational management, leading shareholders to

question managerial effectiveness and lowering their confidence in the firm's operational stability (Bello & Oji, 2023). These findings are consistent with current literature, underscoring the importance of tailored disclosure practices based on stakeholder expectations and theoretical perspectives. While financial risk transparency enhances performance through positive stakeholder perceptions, operational risk transparency may have adverse effects due to increased concerns over immediate operational risks.

5. CONCLUSION AND RECOMMENDATIONS

This study examined the influence of corporate risk disclosure on the financial performance of listed industrial goods firms in Nigeria, a sector known for high levels of operational and financial risk. It specifically assessed how financial and operational risk disclosures affect financial performance. The findings found that while financial risk disclosure positively and significantly influences financial performance, operational risk disclosure has a negative but significant effect. These outcomes suggest that financial transparency boosts investor trust and confidence, enhancing financial performance, whereas disclosing operational risks may reduce investor confidence due to concerns about operational stability and profitability. This study concluded that corporate risk disclosure demonstrated a significant role in influencing financial outcomes, yet its effect varies based on the type of risk disclosed. Financial risk disclosure appears beneficial to the financial performance of industrial goods firms by fostering investor confidence and trust. In contrast, operational risk disclosure may undermine investor confidence, as it highlights vulnerabilities in day-to-day operations that could disrupt profitability. Consequently, firms should strategically consider the types and levels of risk disclosures to maintain transparency without adversely affecting their financial standing.

In line with empirical findings of this study, it was recommended that firms should balance transparency with discretion by selectively disclosing operational risks that have been mitigated or managed, reducing the potential for investor concerns over operational vulnerabilities. Secondly, firms should emphasize financial risk disclosures, focusing on robust risk management practices to strengthen investor trust and attract further investment. Lastly, firms should educate investors and stakeholders on the nature of disclosed risks, particularly operational risks, could reduce misinterpretation and mitigate adverse impacts on investor confidence.

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This study supports the development of more nuanced risk disclosure regulations, particularly in high-risk sectors such as industrial goods. Regulatory bodies may consider guidelines that balance the need for operational transparency with the potential financial repercussions of disclosing sensitive operational risks. Policies that encourage comprehensive, yet judicious risk disclosure could enhance corporate transparency without undermining financial stability. In accounting, these findings underscore the importance of strategic risk disclosure as part of corporate reporting. Accountants and financial officers could adopt a tailored approach to risk reporting that differentiates between types of risks based on their potential effects on stakeholder perceptions and financial performance. This approach could enhance the role of risk disclosure as a tool for managing investor relations and maintaining financial stability.

The study adds to accounting theories on risk disclosure by highlighting how different risk types of impact financial performance. It suggests a need to expand theories of corporate risk management and disclosure to consider the differential impacts of financial versus operational risks, contributing to a more detailed theoretical framework on risk transparency and its effects on investor confidence and firm performance. This research advances academic discourse on corporate governance, risk management, and financial performance by providing empirical evidence on the distinct effects of financial and operational risk disclosures. The findings encourage further exploration into the complexities of risk transparency and its varying effects, helping scholars refine theories and models of corporate risk disclosure.

Future research could investigate whether the observed effects of risk disclosures are consistent across different industries, particularly those with varying risk profiles. Secondly, future studies should examine the long-term effects of risk disclosure on financial performance may provide insights into how investor responses to risk disclosures evolve over time. Lastly, future studies could compare the impact of risk disclosure on financial performance in other countries to assess the influence of cultural and regulatory environments on corporate transparency and investor reactions.

Commented [IM11]: It would be good to explain why this strategy is important. For example, add an argument such as "so that the company can maintain investor confidence without showing too much vulnerability."

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