

An Empirical Analysis of Risk Disclosure and its Effects on Firms' Growth of Consumer Goods Companies in Nigeria

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DOI: <https://doi.org/10.47772/IJRISS.2026.100600348>

Received: 03 June 2026; Accepted: 08 June 2026; Published: 23 June 2026

ABSTRACT

This study is an empirical analysis of risk disclosure and its effects on firm's growth of consumer goods companies in Nigeria for the period between 2018-2024. The study used ex-post facto research design to collect data through the purposeful sampling techniques. The dynamic Generalized Moment Method was used to analyse the data. The findings of the study revealed that ORMD; LRMD; and SRMD have statistical significant effect on firm's growth of consumer goods companies. The study concludes that risk management disclosures have significant effect on firms' performance among the quoted consumer goods firms in Nigeria. This is to say that Study having established a model fit on risk management disclosures (operational risk management disclosure, liquidity risk disclosure management, and solvency risk disclosure management.) concludes that risk management disclosures have a significant effect on firms' performance among the quoted consumer goods firms in Nigeria. This is to say that risk management of firms drives the performance, and the study also established that firms with effective empowerment risk management make higher profits. Thus, the study recommends that firms should continue to improve their voluntary disclosure on empowerment risk management in their reporting based on leadership & management, outsourcing, performance incentive, change readiness and communication as these disclosures are essential for investors' decision making.

Keywords: Assets growth; Risk disclosure; Liquidity risk disclosure; Solvency risk disclosure.

INTRODUCTION

In order to help investors make informed investment decisions, corporate entities have an obligation to properly disclose all relevant information about their operations. In addition to meeting legal requirements, both big and small businesses typically keep their current investors and draw in new ones by publishing their financial statements when a company's capital stock is widely held and its operations are of public interest (Al-Dubai & Abdelhalim, 2021). Business environment is increasingly volatile and uncertain due to many factors. According to Agubata et al., (2021), one of the main causes of the volatility and uncertainty in the current corporate climate is risk disclosure.

Financial problems were not necessarily the cause of many unforeseen incidents that occurred in a company setting. Tragedies like natural catastrophes, wars, regulatory changes, political unrest, shifts in global consumer demand, and many more are examples of these occurrences, which have an impact on a company's ability to survive and grow. However, information on non-financial risk is given less emphasis and therefore less disclosure compared to the disclosure of financial risk management information (Lajili & Zeghal, 2017).

Disclosure is expected to reduce asymmetric information between management and stakeholders especially investors and lenders (Bishau, 2019). Asymmetric information occurs because management has more information and more authority to choose accounting procedures. It means that disclosure is expected to improve the effectiveness of communication between companies and their stakeholders (Oluwaseyi et al., 2018). According to

Lang and Luadholm (2017), lack of risk disclosure may mislead investors in their investment decision-making process.

When deciding whether to invest or not, investors consider a project's risk level in addition to the rewards it is expected to generate. Investors cannot determine the true risk level of a company if they are unable to identify its primary risk elements. This would then cause investors to make poor investment choices, which could result in a significant loss or catastrophe for the investors. According to Hassan (2019) risk disclosure is at central stage of business risk which permits investors a transparent choice and great confidence in investments they make.

In addition to complying with required disclosure requirements, those vying for funds in the global capital arena also reveal a notably greater amount of voluntary accounting information, which allows them to compete on a worldwide scale (Dey et al., 2018). The global economic crisis that came to light in the second half of year 2008 has led to the collapse of many financial and non-financial enterprises world-wide. Events in the United States sparked the present global financial recession and raised significant concerns about accountability and transparency globally.

It is widely believed that the lack of proper use of international accounting standards in affected countries (of which Nigeria is a part) hinders “transparency” in the financial statements of corporations and banks. As a result of this, financial statements fail to provide useful information, on a timely basis. The World Bank Group has carried out extensive research on Nigerian listed companies in the country's context. Nigeria's financial reporting procedures are found to be inadequate (World Bank, 2022). In addition to World Bank research, Okike (2023), Adeyemi (2019), and Ofoegbu and Okoye (2016) have empirically examined the disclosure procedures of Nigerian corporations. They all had the same opinion, which is that Nigerian corporate reporting practices are inadequate. In order to change the global economy, there is now more focus on improving and enforcing financial reporting disclosures globally as a result of the current financial and economic crisis.

Nigeria is working to improve complete disclosure and boost stakeholder confidence by bringing all business reports into compliance with the International Financial Reporting Standards (IFRSs). The Central Bank of Nigeria has instructed Nigerian banks to implement IFRSs by December 2010, and the Nigerian Stock Exchange has instructed all companies listed on the exchange to do so by December 2011 (Egedegbe, 2020). One of the most tough and controversial tasks is to build performance management system which will assure that managers will make decisions that will increase shareholders' wealth. Therefore, proper planning must be done to mitigate the risks that may affect the firm's growth or prevent achievement of this goal. Among the risks faced by a firm is liquidity risk, solvency risk, strategic risk and enterprise risks, but the organizations that implant the right risk management strategies into business planning and performance management are more likely to achieve their strategic and operational objectives (Al-mammari et al., 2022).

The multifarious business risks arising from complex business activities have increased the business challenge on risk management. It follows the position by Odubuasi et al., (2020) that business entities must surmount the risk that becloud them in order to survive and achieve their corporate goals. Most of these uncertainties have been reported to be the reasons behind corporate failures such as those of Enron, Farmalet, Toyco and WorldCom. The failure of the enterprises to report their risks on the financial statements has blindfolded investors and other stakeholders in taking the right decisions. Due to the global financial crisis, uncertainties and risks in the stock investment market have been increasing.

Uncertainty and risk factors are mostly linked to non-financial circumstances and data (environmental, social, legal, etc.) that could impact the firm's worth, profitability, and capacity to meet strategic goals. As a result, in order to reduce these uncertainties, shareholders and authorities have been progressively putting more pressure on businesses to reveal risk information and offer trustworthy data about their operations.

Recently, several large companies, such as Enron, Parmalat and WorldCom, collapsed because of irregularities and fraud. These failures had a significant effect on the global economy and negative consequences for those directly or indirectly related to the companies. The failures were attributed to the inability of the boards of directors (boards) to accurately assess risk and potential problems.

The recent huge company collapse, corporate scandals, and other external and internal factors, coupled with the lack of confidence by investors and creditors in financial reporting, are the strong motivating factors for strengthening and enhancing corporate governance and the adoption of enterprise risk management disclosure across industries (Lam, 2023).

The advent of global economic depression that startled both the developed and developing countries' economy has equally made it necessary for every institution of human endeavour to take the implementation of enterprise risk management disclosure more seriously. Coskun (2021) affirmed that the impact of global financial crisis publicized the relevance of enterprise risk management disclosure, and its importance is attributed to the dynamic business environment characterized by threats from political, economic, terrorist, natural and technical resources. Cendrowski and Mair (2019) opined that enterprise risk disclosure should involve basic risk management activities that spread across the whole scope of an organization's risks such as strategic risks, operational risks, liquidity risk, financial risks and solvency risks.

In today's risky world, companies can no longer rely on a silo approach to risk management. An integrated and holistic perspective of all the risks facing the organization is needed. A risk-centric organization does not avoid risks, but rather it knowingly takes risks aligned with its risk appetite (Institute of Management Accounting, 2019). Globally, risk and risk management are a foremost concern for all organizations, particularly consumer goods companies which are sensitive to solvency risk, liquidity risk, enterprise risk, operational risk and competition (Stolow & Leigh, 2018). Declaring the existence of a risk management strategy is inadequate, consumer goods firms need to aggressively engage in risk management practices to address the convergence of key risks being experienced in the current economic environment where credit crunch risk, fluctuating commodity prices, increased government debt, rising unemployment and declining consumer spending are impacting individually and combined, on organisations (Boateng & Boateng, 2022), as well as the cataclysmic effect of dwindling oil revenue on Nigeria economy.

The Central Bank of Nigeria (2023) equally maintained that risk management is still at its rudimentary stage and bedeviled by some challenges. These challenges include but not limited to, inadequate knowledge of risk management by members of the board of many firms and lack of professionals. Others are a lack of risk training and education and lack of a framework that defends the growth of skilled and capable workers in the industry (Sanusi, 2021). Therefore, this study empirically evaluates the effect of risk disclosure on the firm's growth of listed consumer goods companies in Nigeria.

Research Questions

In the course of carrying out this study, the following research questions were answered. These include:

- i. In what way does operational risk management disclosure affect the firm's growth of listed consumer goods companies in Nigeria?
- ii. In what way does the liquidity risk management disclosure affect the firm's growth of listed consumer goods companies in Nigeria?
- iii. What is the effect of solvency risk management disclosure on the firm's growth of listed consumer goods companies in Nigeria?

Significance of the Study

The impact of risk disclosure on the expansion of Nigerian listed consumer goods businesses was examined in the study. The Nigerian Exchange Group (NXG) quoted consumer products businesses as of 2024. The study's seven-year timeframe was 2018–2024 boarder years inclusive. The significant of this work emanate from the fact that there is paucity of empirical evidences on risk disclosure and firm's growth most especially in developing economy. Therefore, there is no doubt that this work will contribute to the existing body of knowledge on the subject matters. Similarly, the findings of the work will be beneficial to shareholders, management, potential investors, regulators, policy maker and future researchers.

Findings of this study will be of great significance to shareholders of Nigerian listed consumer goods companies as they be intimated on the need to improve their oversight and control functions on the board of directors and be more vigilant objective in the appointment of board members at the annual general meetings, that will protect their investment and guarantee the perpetual existence of their companies. Creditors and investors/other stakeholders will be able to determine the financial strength or otherwise of consumer goods companies and the ability of the consumer goods companies to continue operation perpetually. This will form their basis of making relevant decision or judgment with regards to their resources invested.

LITERATURE REVIEW

Introduction

This section reviewed relevant literatures on the subject under investigation, this comprises of conceptual clarification, theoretical framework and empirical review upon which risk disclosure and firm's growth is based. The conceptual clarification relates to concept of risk, risk management disclosure, liquidity risk, solvency risk, operational risk, strategic risk as well as enterprise risk.

Conceptual Issues: Concept of Risk

Risk is one of the perplexing issues when studying risk disclosure practices, as different risk definitions may lead to different visions and types of risk to be reported (Linsley et al., 2006). Risk is anything that hinders an organization from achieving the set objectives (Woods, 2007). In today's business environment, firms are faced with a variety of risks which may be a hazard, financial, operational, or strategic. Risk is a primary threat that may turn to opportunity if well managed. Al-mammari et al., (2022) submitted that risk management is essential for sustainable development in today's global dynamic environment. Businesses must recognize and deal with risks to turn threats into potential opportunities and sustainable development (Omaliko et al., 2020).

Different perspectives regarding the risk concept and risk disclosure definition have been documented in previous literature. Despite the absence of standard definition of risk disclosure, it can be categorized into two main definitions of risk (Agubata et al., 2021). The pre-modern risk definition, also known as the one-sided risk definition, only depicts the detrimental effects of risk factors on the performance of the company. The modern risk definition, also known as the two-sided risk definition, depicts both the positive and negative effects of risk factors.

Mokhtar and Mellett (2017) defined risk disclosure as the communication of information concerning firm's strategies, operations, and other external factors that have the potential to affect expected results. Additionally, there are two definitions that give the Board of Directors the authority to define risks as disclosures that alert the reader to any opportunity, possibility, hazard, risk, damage, threat, or exposure that has already impacted the company or could do so in the future. This definition has been widely adopted by risk disclosure (Iatridis, 2018).

Risk Management Disclosures

The corporate sector has demonstrated the value of risk management in recent years. Risk management is crucial because it helps the business run better by lowering fraud, controlling possible hazards, and making better use of available resources. The key to a company's survival and expansion is taking and managing risk (Axelos Global Best Practise, 2024).

The Nigerian Code of Corporate Governance (2018) states that accomplishing the company's strategic goals requires a strong framework for risk management and an efficient internal control system.

Liquidity Risk

Liquidity refers to the available cash for the near future, after taking into account the financial obligations corresponding to that period. It is the amount of capital (Cash, credit and equity) that is available for investment and spending (Qasim & Ramiz, 2021). An illiquidity of a firm means that it cannot obtain sufficient funds, either by increasing liabilities or by converting assets promptly, at a reasonable cost. In periods during which the firms don't enjoy enough liquidity, they cannot satisfy the required resources from debt without conversion the asset into liquidity by reasonable cost. In this stage the company is said to experience a liquidity risk. Liquidity risk is the probability that the organization shall not be able to make its payments to creditors, as a result of the changes in the proportion of long-term credits and short-term credits and the uncorrelation with the structure of organization's liabilities (Nyabwanga, 2019).

Liquidity refers to the ability of affirm to meet both its long and short-term obligations as and when they fall due. The obligations of a firm may include; meeting daily operating costs, unforeseen emergencies, contingencies or accidents. In order to meet such obligations effectively, firms must therefore hold a certain percentage of their total liquid assets in form of cash (Akenga, 2017). A firm that is capable of meeting its obligations as and when they fall due creates a good image with its customers more so the creditors. To ensure that a firm remains liquid, financial managers must construct an appropriate asset-liability mix in that the total liabilities must not exceed the total assets of a firm.

Solvency Risk

Solvency is defined as the ability of an institution to meet its short, middle and long-term financial obligations. It is the ability of a business to meet its obligations in the event of cessation of activity or liquidation. A firm is considered as solvent if the existing assets exceed or equal total liabilities. However, if total assets are lower than current liabilities, the firm faces an insolvency risk and cannot pay its debts (Jackson et al., 2002). Ratios are typically used to measure solvency. The solvency ratio, the net worth ratio, and the leverage ratio are the three primary ratios used to assess solvency.

The solvency ratio calculates the amount of debt per dollar of assets by dividing total liabilities by total assets. The leverage ratio compares loans to equity, while the net worth ratio, which is the ratio of total equity to total assets, uses the owner's equity in the company to suggest future solvency held (Ghasim et al., 2017). By swiftly selling off assets with minimal disruption to operations, a corporation could be able to pay off present or future obligations. Asset-to-liability ratios, however, are impacted by changes over time in the value of assets while the value of liabilities stays constant.

Operational Risk

Operational risks can be caused by external events or by insufficient or malfunctioning internal systems, personnel, or procedures. These include dangers to the environment, physical infrastructure, fraud, security lapses,

and legal violations (Chukwunulu, 2018). Operational risks lower shareholder value by affecting stakeholder relationships, client happiness, and the organization's reputation.

It increases volatility of operating costs and earnings. The Basel Accord (2007) defined operational risk as the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events. Nonetheless, operational risk is the risk of negative effects on financial performance and capital of the bank caused by negligence at work of employees, procedures and inadequate internal processes, inadequate management information systems and unpredicted external event.

In some other literature, operational risk is defined as the organization's exposure to potential losses as a result of lack or failure to properly execute its operations. These losses may be incurred as a result of failure or lack of internal employees, processes and systems and their inability to cope with the adverse effects of external factors. Gadzo et al., (2019) further added that the operational risk factors such as people, processes, and systems should take into account the external environment.

Enterprise Risk Disclosure

Enterprise risk disclosure provides value relevant information to stakeholders for rationale investment decision and this would affect firm value (Merkley, 2020). When a company faced difficult circumstances or a disturbing environment, it will be of interest to provide risk related information to the market to signal risk-related information and how it can manage this risk.

The whole essence of enterprise risk management disclosure is for companies to adopt a holistic approach in managing all categories of the risks facing organization today (Koontz & Bradspies, 2022). Therefore, enterprise risk management disclosure is linked to organizational performance which is expected to lead to sustainable growth in the long run. (Koontz & Bradspies, 2022) opine that in recent time ERD has become a global standard across the world in assessing organizational risks due to the failure of the traditional risk-based approach. The traditional risk-based approach has failed to produce the desired result in the face of financial uncertainty that most business firms encounter in the global market.

Committee of Sponsoring Organization of the Tread way Commission (COSO) (2004) posits that enterprise risk disclosure is an integrated process designed by a firm's board of directors to identify the potential threat that may affect financial performance. COSO (2024) believe that the board has an oversight function to manage risk within its risk appetite and provide reasonable assurance regarding risk management. Hau, Gau, & Feng, (2009) opine that implementation of enterprise risk management disclosure in the financial sector needs the following process to make it holistic and integrated.

Empirical Review

Al-Mammari et al., (2022) test the relationship between risk management practices and a bank's financial performance. Data was collected from the annual reports of eight banks listed on the Muscat Stock Exchange (MSX). The study used Structural Equation Modelling (SEM) with Partial Least Square PLS Software. The findings revealed that risk management is positively meaningful while avoiding risk. The result indicates that management has a significant influence on banks performance (ROA). As well as, the findings found that risk management has no significant relation to return of equity (ROE).

Okpala et al., (2021) looked on how risk management disclosures affected the performance of businesses in Ghana and Nigeria. The findings revealed that enterprises' return on equity (ROE) in Ghana and Nigeria was considerably and favourably impacted by technological risk management disclosure, empowerment risk management disclosure, and strategic risk management disclosure. The impact of corporate governance on the disclosure of financial risks by banks listed on the Nigerian Exchange Limited was examined by Agubata et al.,

(2021).

One of the specific objectives is to ascertain how board independence, size, and experience affected banks' financial risk disclosure during the 2010–2019 fiscal years. Using an ex-post facto research design, they were able to generate panel data from the annual reports of the 11 banks that were sampled.

Ghasim et al., (2017) investigated the connection between the Tehran Stock Exchange listed companies' performance and their degree of risk disclosure. Twelve businesses that are listed on the Tehran Stock Exchange make up the sample. According to the results of the regression model, there is no meaningful correlation between the amount of risk information disclosed and the ROE of the company.

Dey et al., (2018) investigated the relationship between financial risk disclosure and financial attributes of publicly traded manufacturing companies in Bangladesh from 2010 to 2015. They proxy financial attribute with financial leverage, liquidity, financial performance and firm size, while financial risk disclosure index was used for the dependent variable. Simple random sampling was applied to select six sectors out of the twelve consumer sectors quoted. The results show that only firm size, auditor and financial performance have positive and statistical significance on risk disclosure at 1% and 5% respectively. While financial leverage has a positive effect, which is non-significant. Liquidity has a negative but also non-significant effect on financial risk disclosure of the firms sampled.

Kiflee et al., (2019) explored the effect of corporate governance characteristics on risk disclosure of selected companies in Malaysia. The result indicates that board independence, auditor independence and audit committee independence have positive significant effect on risk disclosure of firms in Malaysia while board size has negative significant effect on risk disclosure of Malaysian firms.

Al-Dubai and Abdelhalim (2021) examine the moderating effect of risk management disclosure on the relationship between risk disclosure and firm performance in Saudi Arabia. The study used content analysis of cross-sectional data extracted from the audited annual reports of 72 non-financial Saudi listed firms in various non-financial sectors for the year 2018. The findings showed no evidence that risk disclosure and risk management disclosure matter concerning firm performance measured by the average of earning per share EPS when they are examined individually. However, when the moderating effect of risk management disclosure is considered, the results become significantly positive.

THEORETICAL FRAMEWORK

Signaling Theory

Signaling theory was propounded by Michael Spence in 1973 which was built upon the fact that shareholders and other stakeholders cannot be aware of what happens within the enterprise unless such information is disclosed by the management. It buttresses why firms disclose information voluntarily to the stakeholders in their annual report which is just too abreast them with happenings in that period under review.

Razae (2016) reported that a firm can disclose information that could be considered a signal to the capital market, which is intended to eliminate the information asymmetry to the stakeholders and at the same time serve as a support to improving firm value. Therefore, managers through the monitoring and supervision functions of the directors will disclose to a large extent both voluntary and mandatory information of financial risks to the stakeholders, for reduced information asymmetry.

The Liability Management Theory

The Liability Management theory emerged in the year 1960 and it is so far one of the important liquidity management theory because liquidity and liability management are closely related. Most firms today focus on

liabilities side of the statement of financial position, but according to Diamond and Rajan (2001), the fundamental contribution of this theory was aimed at making firms consider both sides of the statement as sources of liquidity. To an extent, the theory's objective has been achieved because today, banks among other firms use both assets and liabilities to meet liquidity needs. Management of money received by a firm from clients as well as funds secured from other institutions constitute liability management. It also involves hedging against changes in interest rates and controlling the gap between the maturities of assets and liabilities. Asset liability on the other hand is the practice of managing risks that arise due to mismatches between the assets and liabilities.

This liability management theory is relevant in this study because as earlier mentioned, firms are using both assets and liabilities to meet liquidity needs and therefore, the management of liquidity is relevant. Liquidity management according to Monnie (1998), means ensuring that institutions maintain sufficient cash and liquid assets.

METHODOLOGY

Introduction

The approach to be used in conducting this research was the main topic of this chapter. It includes a thorough explanation of the research methodology. Research design, study population, sample size and sampling methods, data sources, data collection methods, data analysis methods, variable measurement, variable definition, and model specification are all included.

Research Design

Ex-post factor research design was used in the study. A type of research design known as ex-post factor is one that is conducted after the event has occurred and the data is already available (Ijaiya, 2015). Data were obtained from secondary sources, the study used secondary data in its analysis of the study. The information includes asset growth, liquidity risk, solvency risk, operational risk, and enterprise risk management disclosure. These came from the Nigeria Exchange Group (NXG) as well as the annual reports and financial statements of a sample of consumer products firms that were quoted between 2018 and 2024.

The population of this study includes twenty-two (22) consumer goods companies listed on Nigeria Exchange Group (NXG) as at 31st December, 2018. The population is as contained in table 1 below:

Table 1: Population of the Study

S/NO	Companies	Year of Listed
1.	AUSTIN LAZ & COMPANY PLC.	1982
2.	BERGER PAINTS PLC.	1974
3.	BETA GLASS PLC.	1986
4.	CAP PLC. (CHEMICAL AND ALLIED PRODUCT)	1968
5.	CEMENT CO. OF NORTH.NIG. PLC.	1993
6.	CUTIX PLC.	1982
7.	DANGOTE CEMENT PLC.	1992
8.	FIRST ALUMINIUM NIGERIA PLC.	1962
9.	GREIF NIGERIA PLC.	1969
10.	LAFARGE AFRICA PLC.	1962
11.	DN MEYER PLC.	1979
12.	NOTORE CHEMICAL IND PLC.	2018
13.	PORTLAND PAINTS & PRODUCTS NIG PLC.	2001

14.	PREMIER PAINTS PLC.	1995
15.	ADSWITCH PLC.	1991
16.	AFRICAN PAINTS (NIGERIA) PLC.	1996
17.	ASHAKA CEM PLC	1974
18.	AVON CROWNCAPS & CONTAINERS	1977
19.	IPWA PLC	1978
20.	NIGERIAN ROPES PLC.	1978
21.	PAINTS AND COATINGS MANUFACTURES PLC	2001
22.	W A GLASS IND. PLC.	1985

Source: Nigerian Exchange, (2026).

For any company to be included as sample of the study, it must be quoted on the Nigerian Exchange on or before 1st January, 2018 and stayed listed up to 31st December, 2024 (i.e 2018 - 2024). Therefore, using purposeful sampling techniques method, Notore Chemical Ind Plc. was excluded while all other companies met the criteria and they were selected for the study. This provides the researcher an unrestricted access to all data relevant to the research work.

This study used Generalised Method of Moments (GMM) estimator because it has the maximum power to handle endogeneity, it was used in this study. Ullah et al. (2018) state that GMM modifies data to remove the effects of all endogeneity sources, such as unobserved heterogeneity, simultaneity, and dynamic endogeneity. Out of the numerous lags available, the study selects the GMM lags that best handle endogeneity. Accordingly, GMM is resistant to problems with data heterogeneity and heteroskedasticity.

Measurement of Variables

Asset Growth: It is the current year total assets minus previous year total assets divided by the previous year total assets in percentage (Alexandra et al., 2021). It is given by the formula:

$$ASGRT = \frac{\text{Current Year Total Assets} - \text{Previous Year Total Assets}}{\text{Previous Year Total Assets}} \times 100$$

Operational Risk Management Disclosure (ORMD): This is one of the proxies for measuring risk disclosure of a company. It is defined as the operating expenses plus cost of goods sold divided by the gross revenue (Olabisi et al., 2020). It is given by the formula:

$$ORMD = \frac{\text{Operating Expenses} + \text{Cost of Goods Sold}}{\text{Gross Revenue}}$$

Liquidity Risk Management Disclosure: It is the total loans divided by total current assets (Al-Mamari et al., 2022; Olabisi et al., 2020; Al-Mamari et al., 2022). It is given by the formula:

$$LRMD = \frac{\text{Total Loan}}{\text{Total Current Assets}}$$

Solvency Risk Management Disclosure: It is the Total Debt to Shareholder Funds (Alexandra et al., 2021; Olayinka et al., 2017). It is given by the formula:

$$SRMD = \frac{\text{Total Debt}}{\text{Shareholders Fund}}$$

Model Specification

This study adapted and modified the model of Okpala et al., (2021) model to establish the effect of risk management disclosure mechanism on firm financial performance. The model was specified as follows:

$$PRF = f(ERMD, SRMD, TRMD)$$

PRF= Return on Asset (ROA)

ERMD = Empowerment Risk Management Disclosure;

TRMD = technological risk management disclosure.

The model was adapted and re-modified to suit the objectives of this study. The model was specified below:

$$FGRT = f(ERMD, ORMD, LRMD, SRMD)$$

Model 1:

$$ASGRT_{it} = \alpha + \beta_1 SRMD_{it} + \beta_2 ORMD_{it} + \beta_3 LRMD_{it} + \mu_i$$

Where:

ASGRT = Asset Growth

ORMD = Operational Risk Management Disclosure

LRMD = Liquidity Risk Management Disclosure

SRMD = Solvency Risk Management Disclosure

α = Intercept

$\beta_1 - \beta_3$ = Parameters of Estimate,

$$\mu_{it} = \varepsilon_{it} + \lambda_i$$

ε_{it} = stochastic error term

λ_i = cross-sectionals individual difference (Composite Error)

A priori expectation is that $\beta_1 - \beta_3 > 0$

Decision rule; null hypothesis is rejected if the prob (p-value) is < 5% significance level, otherwise it is accepted.

Data Presentation, Analysis and Interpretation

Introduction

The aim of this chapter is to present the analysis of the data obtained from secondary source in terms of the descriptive analysis, to describe each of the variables, and inferential analysis to make generalization and draw conclusion from tested relationships among variables.

Summary Statistics

The first descriptive analysis result of variables presented in this section is the summary statistics of variables, which has the mean, standard deviation, skewness, Jarque-Bera, kurtosis, minimum and maximum values of the variables over the period under investigation. These results are presented in Table 4.1. the table depict the mean, median, standard deviation, skewness, kurtosis and jarque-bera values for all the study variables. The mean describes the average value in the series and the standard deviation measures the volatility of the data or amount of deviation of the data from the average. The skewness measures whether the distribution of the data is symmetrical or asymmetrical, kurtosis measure the peakedness of the data compared to normal data.

Table 4.1: Results of Summary Statistics of Variables

Variable	Mean	Std. Dev.	Min	Max	Skewness	kurtosis	Jarque-Bera	p-value
Assets Growth	0.110	0.2423195	-0.3025691	1.819516	5.09	32.40	5324.8	0.000
Operational Risk Management Disclosure	116000000	153000000	302000000	725000000	2.21	8.18	254.83	0.000
Liquidity Risk Management Disclosure	15400000	54600000	-51300000	301000000	-1.14	2.33	30.91	0.000
Solvency Risk Management Disclosure	2.393939	0.6069313	0	3	-1.62	7.87	188.60	0.000

Source: Author's Computations, (2026).

A description of the variables employed in this study were presented in Table 4.1. The table shows that assets growth was approximately 0.111 percent on the average, with a minimal spread of about 0.242 percent. At a point over the period under investigation, a firm had a assets growth as low as about -0.303 percent while a firm had a assets growth as high as about 1.819 percent. Being reported with skewness and kurtosis values of 5.09 and 32.4, the variable is expected to be non-normally distributed. The reported Jarque-Bera statistic further buttressed its non-normal distribution with a statistic value of 5324.82 and p-value of 0.000, signifying that the statistic is significant, and the test's hypothesis of normal distribution is rejected for the alternative of non-normal distribution.

Operational Risk Management Disclosure, which is measured in naira, has a mean value of 116,000,000 standard deviation of 153,000,000 minimum value of 302,000,000 and maximum value of 725,000,000. This denotes that the firms, on the average, recorded the operational risk management disclosure of 116 billion naira, during the period under investigation, with the spread of 153 billion naira from the average behaviour. The lowest amount of operational risk management disclosure during the period was 302 million naira and the highest operational risk management disclosure recorded was 725 billion naira. Being reported with skewness and kurtosis values of 2.21 and 8.18, operational risk management disclosure is expected to be non-normally distributed. The reported Jarque-Bera statistic further buttressed its non-normal distribution with a statistic value of 254.83 and p-value of 0.000, signifying that the statistic is significant, and the test's hypothesis of normal distribution is rejected for the alternative of non-normal distribution.

Liquidity risk management disclosure has a mean value of 15,400,000 standard deviation of 154,600,000 minimum value of -51,300,000 and maximum value of 301,000,000. This denotes that the firms, on the average,

recorded the liquidity risk management disclosure of 15.4 billion units during the period under investigation, with the high spread of 154.6 billion units from the average behaviour. The lowest amount of liquidity risk management disclosure recorded during the period was negative 51.3 billion units and the highest liquidity risk management disclosure recorded was 301 billion units. Being reported with skewness and kurtosis values of -1.14 and 2.33, liquidity risk management disclosure is expected to be non-normally distributed. The reported Jarque-Bera statistic further buttressed its non-normal distribution with a statistic value of 30.91 and p-value of 0.000, signifying that the statistic is significant, and the test's hypothesis of normal distribution is rejected for the alternative of non-normal distribution.

Solvency Risk Management Disclosure, has a mean value of 2.394, standard deviation of 0.607, zero minimum and maximum value of 3. This denotes that the average Solvency Risk Management Disclosure was 2.394, with the low spread of 0.607. At the lowest, zero Solvency Risk Management Disclosure was recorded while 3 was recorded has the highest Solvency Risk Management Disclosure. Being reported with skewness and kurtosis values of -1.62 and 7.87, Solvency Risk Management Disclosure is expected to be non-normally distributed. The reported Jarque-Bera statistic further buttressed its non-normal distribution with a statistic value of 188.6 and p-value of 0.000, signifying that the statistic is significant, and the test's hypothesis of normal distribution is rejected for the alternative of non-normal distribution.

Even though all these variables are not normally distributed, a parametric regression analysis could still be carried out because the estimation technique employed, which is the system generalized method of moment (GMM), is appropriate in estimating the relationship among such variables because it does not assume normal distribution of variables (Asteriou & Hall, 2016).

Pairwise Correlation Analysis

This sub-section is devoted to presenting the results of pairwise correlation analysis in a descriptive way to show the relationship that exists among the variables of this study, particularly the continuous variables. This is important on one hand, to show how these variables are related, and on the other hand, to ensure that these variables do not have high correlation coefficient that would cause a problem of severe multicollinearity in the models of this study if these variables were employed together.

Table 4.2: Results of Pairwise Correlation Analysis

	ASGRT	ORMD	LRMD	SRMD
ASGRT	1			
	0.000			
ORMD	-0.013	1		
	(0.882)			
LRMD	0.0507	-0.1904	1	
	(0.563)	(0.028)		
SRMD	0.0647	0.2906	0.008	1
	(0.460)	(0.000)	(0.927)	

Source: Author's Computations, (2026).

Note: ASGRT is assets growth; ORMD is operational risk management disclosure; LRMD is liquidity risk management disclosure; SRMD is solvency risk management disclosure.

The results of correlation analysis presented in Table shows that assets growth has a statistically significant positive correlation coefficients with assets growth (0.5418 with p-value of 0.000). However, return on assets has no statistically significant correlation coefficient with other variables in the column, mostly, the variables such as operational risk management disclosure, liquidity risk management disclosure, and solvency risk management disclosure. This implies that assets growth has significant positive relationship with operational risk management disclosure.

Operational risk management disclosure has a statistically significant negative correlation coefficients with liquidity risk management disclosure (-0.1904 with p-value of 0.028) but a statistically significant positive correlation with solvency risk management disclosure (0.2906 with p-value of 0.000). This implies that operational risk management disclosure has significant negative relationship with liquidity risk management disclosure but has significant positive relationship with solvency risk management disclosure.

Overall, none of the correlation coefficients of the relationships among the explanatory variables is as high as 0.8. Following the rule of thumb of detecting severe multicollinearity (see Asteriou & Hall, 2016), this signifies that employing these variables together in a regression model would not lead to the problem of severe multicollinearity.

Inferential Analysis

The focus of this section is to present the results obtained from the inferential analysis of variables. The main inferential analysis tool employed here is regression analysis, which is to evaluating the effects of risk disclosure on firm's growth of listed firms in Nigeria. The results are presented in line with those obtained from the system generalizes method of moment (GMM) estimator. Prior to the estimation, unit root test was conducted to examine the stationarity of each of the variables.

Unit Root Test

The results of unit root test are presented here. The test was conducted to verify the time series properties of the panel data employed in this study, most especially, the nature of stationarity. The test is relevant to ensure that variables are stationary or otherwise integrated in order not to have spurious regression results in the work.

Table 4.3: Results of Fisher-type Augmented Dickey-Fuller Unit Root Test

Variable	P-statistic	p-value	Z-statistic	p-value	L*-statistic	p-value	Pm-statistic	p-value	Remark
ASGRT	127.2	0.000	-5.217	0.000	-9.073	0.000	14.90	0.000	Stationary
ORMD	74.32	0.000	-3.145	0.000	-4.765	0.000	7.264	0.000	Stationary
LRMD	25.47	0.380	-2.105	0.017	-2.426	0.010	0.212	0.145	Stationary
SRMD	109.3	0.000	-3.389	0.000	-7.063	0.000	12.32	0.000	Stationary

Source: Author's Computations, (2026).

Note: P-statistic is Inverse chi-squared statistic; Z-statistic is Inverse normal statistic; L*-statistic is Inverse logit t statistic; Pm-statistic is Modified inverse chi-squared statistic. ASGRT is assets growth; ORMD is operational risk management disclosure; LRMD is liquidity risk management disclosure; and SRMD is solvency risk management disclosure.

The unit root test results presented in Table 4.3 are those from the Fisher-type augmented Dickey-Fuller procedure. The test reveals four test statistics for the test which include the inverse chi-squared statistic (P), inverse normal statistic (Z), inverse logit t statistic (L*) and modified inverse chi-squared statistic (Pm). The test

results revealed that the four test statistics support the fact that each ASGRT, ORMD, LRMD, and SRMD is stationary. Looking at the results, all test statistics have high statistic value and low p-values which are enough to reject the test null hypothesis of presence of unit root or in other words, non-stationarity.

The results show that it is stationary from the inverse normal and inverse logit t statistics, but not stationary from the inverse chi-squared and modified inverse chi-squared statistics. It is concluded that the variable is stationary.

Given that the estimation technique employed in this study is the system GMM, the stationary and non-stationary series can be employed in a model without any consequence of having spurious result.

Table 4.4: Result of Variance Inflation Factor (VIF) for Assets Growth Model

Variable	VIF	1/VIF
ASGRT	6.01	0.227767
ORMD	3.5	0.232787
LRMD	3.31	0.301964
SRMD	3.3	0.302653
Mean VIF	11.56	

Source: Author's Computations, (2026).

The VIF result presented in Table 4.5 is for the assets growth model. With each of the VIF values being lower than 10, the model of this study is free from multi-collinearity problem. The tolerance (1/VIF) values also suggest similar conclusion, as each of the values are well above zero. The variance inflation factor results therefore revealed that all the independent variables of the model do not exhibit very high correlation that can lead to multi-collinearity problem. The result further buttresses the conclusion reached from the pairwise correlation analysis.

Test of Hypotheses

The result of the impact of effects of risk disclosure on firm's growth of listed firms in Nigeria is presented here. The dependent variable is assets growth, which is used to proxy financial performance. The independent variables include operational risk management disclosure, liquidity risk management disclosure, and solvency risk management disclosure.

Table 4.5: Result of System GMM for Assets Growth

Variable	Coefficient	Standard Error	Z	p-value
ASGRT(lag)	-0.18207	0.078181	-2.33	0.002
ORMD	0.117613	0.146405	0.8	0.004
LRMD	-0.07198	0.043454	-1.66	0.002
SRMD	-0.37255	0.198503	-1.88	0.001
Constant	1.587363	0.827331	1.92	0.055
Sargan test	6.671			0.891
AR test (1)	-1.559			0.119
AR test (2)	-1.311			0.189

Source: Author's Computations, (2026).

Note: ASGRT is assets growth; ORMD is operational risk management disclosure; LRMD is liquidity risk management disclosure; and SRMD is solvency risk management. AR is autocorrelation test.

Evaluating the model of this study in terms of autocorrelation (or serial correlation), the result presents the Arellano-Bond test of autocorrelation (AR), which has null hypothesis of no autocorrelation. The basic assumption of the test is that first-order autocorrelation may be permissible in the GMM results, however, second-order autocorrelation raises serious concern about the validity of the result. The result shows that the first-order autocorrelation statistic value is very high (i.e., -1.559) and the p-value is well over 0.005. This indicates that the test's null hypothesis of no first-order autocorrelation could not be rejected, which satisfy the test's condition and suggest that there is absence of first-order autocorrelation in the model. The result also shows that the second-order autocorrelation statistic value is very high (i.e., -1.311) and the p-value is well over 0.05. This indicates that the test null hypothesis cannot be rejected at the second-order tests, which satisfy the test's condition. Therefore, the model is free from autocorrelation problems, both at first order and second order tests.

Regarding test of the validity of the instruments employed for this model, the Sargan test of over-identifying restriction was conducted for this model. This was done to verify if the restrictions placed on the employed instruments in order not to be over-identified are valid. The null hypothesis of this test is that over-identifying restrictions are valid. Given the statistic value of this test result, which is 6.67 and its p-value being greater than 0.01, the results suggest that the null hypothesis of the test could not be rejected for the model. This implies that over-identifying restriction is valid for the model.

Examining the importance of each explanatory variables of the model, the results show that liquidity risk management disclosure, and solvency risk management disclosure have negative coefficients but significant (-0.07198, and -0.37255 respectively) and p-value (0.002, and 0.001 respectively). In a related development, operational risk management disclosure has positive significant effect on assets growth of the listed firms with the coefficient (0.117613) and p-value (0.004). at 5% level of significant.

Specifically, the significant negative coefficient of lag of asset growth indicates that a percent point increase in first year period lag of return on asset will lead to decrease in current assets growth by 0.18207 percent points. liquidity risk management disclosure, and solvency risk management disclosure a well as operational risk management disclosure have statistically significant as it can be verified by their respective p-value of less than 0.05 significance level.

DISCUSSION OF FINDINGS

This study employed generalized moment method to have deep analysis of the effects of risk management disclosure on the financial performance of quoted consumer goods companies in Nigeria. This subsection focused on evaluation of the combine findings to have a unique opportunity of comprehending and explaining the results in respect of each hypothesis. The major findings of this study revealed positive and significant effect of risk management disclosure on the financial performance of listed consumer goods companies in Nigeria which is in line with the study by Okpala et al., (2021); Ismail and Rahman (2013); Iatridis (2018); Ferguson (2016) but contradict the findings of the study by Dorathy et al., (2024) and that of Oluyinka et al., (2023).

The first GMM regression analysis in table 4.5 revealed that operational risk management disclosure, liquidity risk disclose management, and solvency risk disclosure management have positive and statistically significant on financial performance of consumer goods companies in Nigeria proxy by assets growth. This is in line with the study by Okpala et al., (2021); Ismail and Rahman (2013); Iatridis (2018); Ferguson (2016); Dorathy et al., (2024) and that of Oluyinka et al., (2023).

CONCLUSION AND RECOMMENDATIONS

Conclusion

This examine the effect of credit risk management disclosure on financial performance of consumer goods companies listed on Nigerian exchange group. This study concludes that risk management disclosures have

significant effect on firms' performance among the quoted consumer goods firms in Nigeria. This is to say that risk management of firms drive performance of consumer goods companies in Nigeria.

Recommendations

Based on the findings and conclusions of the study, the study made the following recommendations as related to risk management disclosure and performance of consumer goods companies in Nigeria.

- i. The study found that operational risk management disclosure has a significant influence on firms' returns on equity; thus, the study recommends that firms should continue to improve on their voluntary disclosure on operational risk management disclosure in their reporting based on competitors, business portfolio, pricing, life cycle and planning, as these disclosures are essential for investors' decision making.
- ii. The study established a positive association between liquidity risk management disclosures and firm performance. Based on this, the study suggests that firms should have a positive disposition towards liquidity risk management and also disclose more of this information in their annual reports, as the level of this information disclosure has influenced firms' performance over the years.
- iii. The Central Bank of Nigeria and the Nigeria Deposit Insurance Corporation should strictly enforce the maintenance of their minimum regulatory benchmark on the capital-to-asset ratio of consumer goods companies' operators in the country through the companies' board of directors. Moreover, the regulatory authorities should demand and heighten a robust capital-to-asset ratio in the nation's consumer goods companies, which will forestall the recurring instances of distressed consumer goods companies and their eventual insolvency in the country.

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