

# Risk Management Practices and Firm Performance: Evidence from Non - Financial Listed Companies in Nigeria

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**Abstract:** *The study examines the effect of risk management practices on the performance of non - financial listed companies in Nigeria. Risk management practices were proxied by the Enterprise Risk Management, Risk Management Committee, Chief Risk Officer, Audit Committee, size of the Board, Independent Directors, the proportion of non - executive Directors on the board, the ratio of financial experts on the board, a whistleblower policy and Internal Audit in the companies. The firm performance was measured by Return on Assets, Return on Equity and Tobin's Q. The study adopted an ex - post facto research design and selected a sample of 44 firms from a target population of 114 firms. It used secondary data obtained from the annual reports and financial statements of non - financial companies from 2010 to 2019 and the Nigerian Exchange Limited (formerly NSE) and its Factbooks. Descriptive statistics were deployed to analyse the research questions. The inferential statistics (simple and multiple Regression analysis, t - test and Analysis of Variance) were deployed to investigate the relationship between the dependent and independent variables as revealed by the study's hypotheses. Results showed that risk management practices have no significant effect on the performance (ROA, ROE, and Tobin's Q) of non - financial companies listed on the Nigerian Exchange Limited. However, the multiple regression analysis revealed that only board size was statistically significant to influence ROE positively, and only Independent Director was also statistically significant to influence Tobin's Q positively. The study concluded that risk management should be taken seriously by listed non - financial companies in Nigeria to improve their performance; they should take the practices beyond mere compliance with the laws or Code of corporate governance. The study recommended increased monitoring of companies' risk management practices by the Risk Management Committee, Securities and Exchange Commission (SEC), Nigerian Exchange Limited (NGX), and Financial Reporting Council of Nigeria (FRCN).*

**Keywords:** FRCN, Non - financial listed Companies, NGX, Performance, Risk Management practices, SEC

## 1. Introduction

### 1.1 Background of the Study

One of the business entity's primary objectives is to generate sufficient returns for its various stakeholders, particularly shareholders, creditors, and employees, despite the uncertain or unfriendly business environment. Risks, however, threaten the goal. Doing business in the 21st century is more complex, versatile and uncertain than in the past (Sithipolvanichgul, 2016). In addition, regulations/legislation, climate, technologies and pandemics have increased the complexities in the business environment.

Risk is related to opportunities, and it is anything that can impact the fulfilment of corporate objectives. Risk is a part of business activity; it is impossible to avoid all kinds of business risks because they are embedded in opportunities. The business environment is characterised by numerous risks, especially in Nigeria. A firm must take a risk to survive and create value for its stakeholders; hence, management must take appropriate steps to minimise its effects on the entity's operations.

According to ISO 31000 (2020), managing risk is part of all activities associated with an organisation and includes interaction with stakeholders. This informs the researcher's approach to the study.

The effective management of risks can minimise their effects on an entity and create opportunities for it to achieve its objectives. Laws, regulations and guidelines or codes have been issued in Nigeria at various times to mitigate against increasing risks in the business environment. The various provisions were collated to form risk management

practices in this study. Therefore, risk management practices are the different practices to identify, assess, plan and control social, economic, and physical threats to organisations. It involves risk - avoiding as well as risk - taking. There have been various studies investigating the effect of these different risk management practices (Ilaboya & Obaretin, 2015; Teoh Ai Ping, Lee & Muthuveloo, 2017).

Risk management is taken more seriously in the financial sector worldwide; the financial institutions have continued to be strengthened due to lessons from the Asian financial crisis of 1997 - 98 and interconnections of the institutions globally as revealed by the global financial crisis of 2007 - 09. On the other hand, neglect of risk management accounted for the Asian financial crisis.

Non - financial listed companies are more affected by certain risks, and these have become threats to their operations to justify special attention at this time of Nigeria's development. One of such risks is market risk consisting of foreign exchange risk and interest rate, among others. Forex restrictions and scarcity have become a permanent problem for non - financial companies in recent times. The manufacturing and other sectors in the non - financial industries need forex for their inputs and equipment; particularly, their revenues and profits have been adversely affected by fluctuating foreign exchange and scarcity of foreign currencies, especially the US Dollar. Moreover, the foreign exchange market is characterised by instability and uncertainty, making predicting future prices challenging (Osho&Efuntade, 2019). The country needs agriculture and manufacturing companies to grow its economy, but this will remain a dream until necessary supports are provided for these critical sectors.

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Risk management has become a necessity instead of an option for any entity, whether profit - oriented or not. It must operate to survive within the ever - increasing complex environment. Organisations need to identify the risks they face because they take risks through their activities knowingly and unknowingly. According to Mohammed & Knapkova (2016), globalisation and a complex business environment lead many businesses to think beyond profitability. The complexities in the business environment show the future to be more dynamic and unpredictable than before.

### 1.2 Statement of the Problem

Some non - financial companies listed on the Nigerian Exchange Limited (NGX) have consistently been giving good returns to their stakeholders. In contrast, others have experienced declining fortunes, and some have even been delisted within the last ten years. Also, company failures, corporate scandals, frauds, and other reasons, necessitated

the need for companies to implement risk management processes and practices that could help eliminate or reduce the potentially harmful effect of these risks associated with the running and management of businesses in Nigeria.

The performance of non - financial companies listed in the Nigerian Exchange Limited (NGX), showing a lower profit margin than financial companies, is disturbing. Based on the results of quoted companies in Nigeria for 2015 to 2018 released by the Nigerian Exchange Limited, non - financial sectors contributed N19.9trillion or 54 per cent of the reported revenue of Nigerian listed companies. On the other hand, the financial services sector contributed N16.9trillion or 46 per cent of the total revenue for the period (Nairametrics, 2019). In addition, the researcher observed that the financial industry with lower revenues accounted for N2.5trillion or 57 per cent of the reported earnings compared to N1.8trillion or 43 per cent of non - financial firms in Table 1.1.

**Table 1.1:** Sectoral Performance of Listed Companies (2015 - 2018)

Industry	Revenue	Profit before Tax	Profit After Tax	Margin
	N	N	N	%
Financial	16,938,584,348.22	3,061,682,791.55	2,468,710,182.94	15
Non-Financial	<u>19,870,409,915.87</u>	<u>1,992,084,742.69</u>	<u>1,825,301,726.26</u>	<u>9</u>
<b>Total</b>	<b><u>36,808,994,264.09</u></b>	<b><u>5,053,767,534.24</u></b>	<b><u>4,294,011,909.20</u></b>	<b><u>12</u></b>

**Source:** Quoted companies results between 2015 - 2018

The global economic crisis and Nigeria's economic recession, in particular, exposed the companies' lack of a proper understanding of their actual risk profile. Moreover, the recent COVID - 19 outbreak has also affected business and economic development, posing several challenges affecting firm performance.

There have not been sufficient studies, especially within the Nigerian environment, examining the effect of risk management practices on non - financial companies' performance in Nigeria. In addition, some of Nigeria's existing risk management practices have not been adequately examined, and only a few of the studies focused on all non - financial sectors. Thus, this study investigates the impact of risk management practices on non - financial companies' performance in Nigeria using secondary data.

### 1.3 Research Objectives

This study's broad objective is to examine the relationship between risk management practices and non - financial listed companies' performance in Nigeria.

The specific objectives are to:

- 1) identify risk management applications' determinants or risk management practices in non - financial listed firms in Nigeria,
- 2) measure the level of risk management practices in Nigeria, especially in the non - financial listed companies,

- 3) ascertain the relationship between risk management practices and the performance of non - financial listed firms in Nigeria,
- 4) examine whether risk management practices increase the performance of non - financial listed firms in Nigeria.

### 1.4 Research Questions

The study fills the identified gap by addressing the following research questions;

- 1) What are the indicators of risk management practices in non - financial listed firms in Nigeria?
- 2) What is the current level of risk management practices among the non - financial listed firms in Nigeria?
- 3) What is the relationship between risk management practices and the performance of non - financial listed firms in Nigeria?
- 4) Which of the risk management practices can increase the performance of non - financial listed companies in Nigeria?

### 1.5 Research Hypotheses

The hypothetical model is built to study the relationship between risk management practices and the quoted companies' performance outside Nigeria's financial sector. The following null hypotheses are formulated to achieve the research objectives:

$H_{01}$  – Risk management practices do not exist in non - financial listed firms in Nigeria.

H<sub>02</sub> - It is impossible to ascertain the current level of implementing risk management practices by the non - financial listed firms in Nigeria.

H<sub>03</sub> - Risk management practices have no significant relationship with the performance of the non - financial firms listed on the Nigerian Exchange Limited.

H<sub>04</sub> - The performance of non - financial listed companies in Nigeria is not influenced by any risk management practices.

### 1.6 Scope of the Study

Listed companies in Nigeria can be broadly classified into two; financial and non - financial. The focus of this study is on non - financial listed companies in Nigeria. The NGX categorised listed companies into eleven sectors; only one is for financial services, while ten is non - financial. The non - financial sectors covered by the research are Agriculture (5 companies), Conglomerates (5 companies), Construction/Real Estate (9 companies), Consumer Goods (20 companies), Healthcare (11 companies), Information and Communication Technology (ICT) (10 companies), Industrial Goods (15 companies), Natural Resources (4 companies), Oil and Gas (11 companies), and Services (25 companies). The study also covered ten years, from 2010 to 2019, to ensure that companies that have existed for a more extended period are studied and consider pre and post - recession periods in Nigeria.

The variables used for measuring the performance of non - financial companies are the return on assets, return on equity, and Tobin's Q. Risk management practices, on the other hand, are the various qualitative information concerning the researcher's risk management practices as provided by the non - financial firms in their annual reports and financial statements. They include implementation of enterprise risk management (ERM), the existence of risk management committee (RMC), the appointment of a chief risk officer, the existence of audit committee, size of boards, the existence of independent director, the proportion or ratio of non - executive directors to the total board members of the non - financial firms, financial expertise of the board, adoption of a whistleblower policy, the presence of internal audit in the non - financial firms.

### 1.7 Significance of the Study

Organisations embrace risk management to enable their management and stakeholders to identify the various risks and take appropriate steps or measures to manage and control them. However, the knowledge and understanding of the relationship between risk management and firm performance are still ambiguous. Therefore, the significance of this study are:

- 1) It will enlighten stakeholders of the non - financial firms, making them understand how the risk management process can positively impact their firms' performance in Nigeria.
- 2) It will help the top executives, practitioners, consultants, regulators, and other individuals appreciate the importance of risk management among firms and make appropriate decisions relating to the successful

implementation of various risk management practices in Nigeria.

- 3) It will also bring risk management practices in the non - financial sectors to the front burners, thereby attracting top executives, practitioners, regulators, investors and other stakeholders to the importance of risk management in various firms. This is evident by:

- Listed companies will see the study as benchmarking tools that assist in improving the implementation of risk management. For example, the proxies used for performance might turn out to be the KPI of firm performance.
- Investors and analysts can incorporate risk assessment into their investment decisions.
- The identified determinants of risk management practices will provide proper guidelines for regulators' policies. The study will support or strengthen the importance attached to risk management by the FRCN, CAC, SEC and other regulatory bodies in Nigeria.
- The research demonstrated a reliable measurement of implications of risk management practices on firm performance and can contribute to further studies on risk management.
- The study will contribute to a growing body of knowledge that can improve risk identification, risk assessment, risk management and ultimately improve the performance of listed non - financial companies in Nigeria and all other companies.

### 1.8 Limitations of the Study

As with all research, this study also has limitations. First, the study relied on secondary data, especially the qualitative ones (risk management practices) that were not subjected to third - party confirmation or audit. Those obtained from Nigerian Exchange Limited were input by its staff, who might have made any errors.

Second, the coronavirus pandemic, which grounded socio - economic activities in Nigeria for many months, affected this study's speed; companies and the Nigerian Exchange Limited had to work from home. Working from home is a new practice in Nigeria; it has not been a perfect substitute for physical work.

Third, there is no universal definition of performance; the researcher, however, used common yardsticks or indicators of performance for the study.

Fourth, the researcher's risk management proxies relied on the companies' disclosures in their annual reports, which may not be complete or not clear enough. Finally, the determinants of risk management practices are discretionary; they are based on the observed practices and requirements of laws and the Code of corporate governance in Nigeria; they may not be exhaustive.

Fifth, the researcher could not identify the exact time of implementing each of the companies' risk management practices. As a result, the researcher could not accurately determine risk management's effect on the companies' results for the period covered.



## 2. Review of Related Literature

This chapter discussed a foundation for the study by covering the concept of risk management practices and the firm's performance in the area of study. It identified the relevant theory to the research, discussed empirical literature evidence to determine what has been done in previous investigations, and identified gaps to justify this study.

### 2.1 Conceptual Review

#### 2.1.1 Concept of Risk

Several definitions have been given to the concept of "risk". According to Hopkin (2014), risk is anything that can impact the fulfilment of corporate objectives. Therefore, risk is an integral part of business activity and is required if any business entity survives and creates value for its stakeholders.

#### 2.1.2 Types of Risks

Companies should identify at least the top ten risks affecting them for necessary assessment from time to time. The idea behind selecting the top ten risks is to ensure that the companies identify key risks affecting them periodically for necessary assessment and evaluation and take appropriate steps to respond to them in the entities and their stakeholders' overall interest. Some of the risks relevant to non - financial firms in Nigeria are:

- **Credit risk:** is the loss that may occur from any party's failure to comply with the terms and conditions of any trade terms. It is also known as default risk and is one of the oldest risks. Joshua &Nwafili (2017) observe that credit risk is the most prevalent risk faced by many companies in today's business.
- **Liquidity risk:** According to Akenga (2017), liquidity is the ability of a firm to meet short term financial obligations by converting the short term assets into cash without incurring any loss.
- **Market risk:** Market risk is the risk of losses in a liquid portfolio arising from market price movements consisting of interest rate, currency, equity, and commodity risks (Ekinci, 2016). The four major types of market risk are represented in figure 2.1 below:

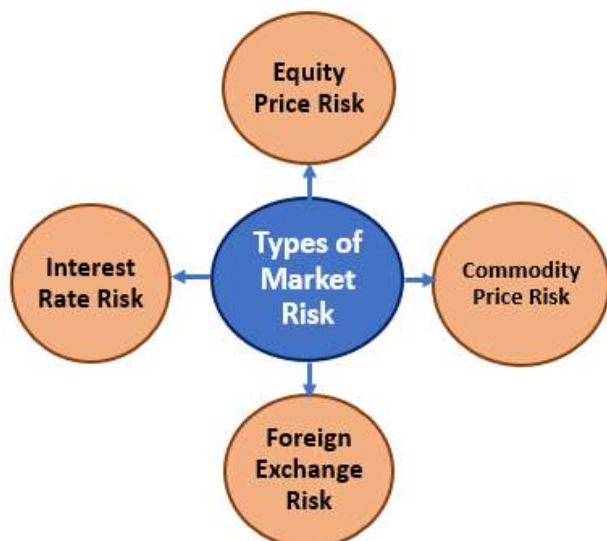


Figure 2.1: Type of market risk

- **Operational risk** is the potential financial loss resulting from a breakdown in day - to - day operational processes. It can arise from technical failures and human errors such as system failures, policy violations, property breakdowns, plant, and equipment, failure to comply with laws and regulations, etc.
- **Political risk:** It is the risk that political or government action will affect a company's position and value. It is a country risk. Political risks could be institutional, but some also emerge due to inherent factors in the political environment.
- **Financial sustainability:** It is the ability of a company to meet the financial needs of its stakeholders
- **Effectively communicated and timely financial reporting:** The timely report supports investors rights in emerging markets and inhibits insider trading.
- **Staffing:** The success of every organisation depends on human capital (Khayinga&Muathe, 2018). Worlu and Omodero (2016) affirm that a firm cannot achieve its primary objective without conscious investment in human capital to have quality employees to reach such a goal. Unfortunately, the company's exposure to fraudulent acts or misappropriation by staff has also risen in recent times.
- **General Economic Conditions:** According to Gado (2015), the environment of going concerns, like animals' habitats, contributes to their development. Like living beings' natural environments, a business's environment can either enhance or stifle its growth and development. The nature and extent of the impact of the environment on any company depend on such a company. According to the statistics released by the National Bureau of Statistics, *Nigerian Gross Domestic Product Report (Q3 2020)* at the end of the third quarter (September 2020), Nigeria has slipped into another technical recession, having recorded a negative GDP of 3.62% at the end of the third quarter ended 30th September 2020. The economy had contracted by 6.1% at the end of the second quarter on 30th June 2020. Unlike in the second quarter, both the oil sector and the non - oil sector contracted. The growth of financial institutions by 6.8% was not adequate to accommodate insurance contraction by 18.67%. The non - oil contracted by 2.51%, while the oil sector contracted by 13.89%. The economy's performance in Q3 2020 reflected residual effects of the restrictions to movement and economic activity implemented across the country in early Q2 in response to the COVID - 19 pandemic.
- **Security Risk:** The security challenge is still a significant threat to economic development in Nigeria. No business investors will be motivated to invest in an unsafe and insecure environment, whether local or foreign. Insecurity is not restricted to any part of Nigeria. Boko Haram insurgents, kidnappers, militancy, banditry and rituals have undermined the essence of the right to live in Nigeria. As a result, businesses have been adversely affected.
- **Inadequate Infrastructure:** One of Nigeria's most significant impediments to profitable business and economic growth is its poor infrastructure. Poor infrastructures affected the capacity or ability of firms, the costs of doing business and expected returns. Therefore, an entity needs to know what it has to provide to operate.

- **Technological risks:** Organisations face technological risks when their hardware, software, and online applications are compromised by cyber - attack or equipment failure. Technological risks are events arising from changes in the technology deployed by a company.
- **Legal risk:** Legal risks include contractual failure, liability claims, suits by insiders or outsiders disrupting the entity's operations, disputed patent rights or licences etc. Paulinus and Jones (2017) opined that legal risk arises from the potential that enforceable contracts, lawsuits, or adverse judgments can disrupt or otherwise negatively affect an organisation's operations or condition.
- **Reputational risk** is a potential loss that arises from damage to the entity's reputation or corporate image. It is a threat to the entity's proper name. Reputation is critical to all organisations; companies established to make profits and deliver attractive returns to their stakeholders, as covered in this study, guard their reputation jealously to remain in business. The loss could be financial or non - financial.
- **Compliance Risk:** Compliance management is more expansive than legal compliance; it includes compliance with voluntary commitments, in addition to binding rules. The concerned regulatory authorities or bodies ensure adherence. Compliance risk is ranked as one of the top business risks in Nigeria.
- **Health and Safety Risk:** Nwachukwu, Akpoh, Samuel & Udemé (2020) reiterate that the environment of manufacturing firms these days in Nigeria is becoming more dangerous and hazardous to health due to both the chemical substances, machine and equipment, plant layout, work process, constant exposure to light and other harmful substances and improper use of safety protection equipment and misused of working tools. Health and safety risks include loss of employees' time due to injury and the risks of paying compensation or legal costs because of breaches.
- **Fraud Risk:** Fraud has become one of the most significant risks in Nigeria's private and public sectors in recent times. Staff, including the management, suppliers, service providers, and even customers, are involved in fraudulent practices. Therefore, managing the risk of fraud requires the same process as managing other business risks (Pan & Skeels, 2016).
- **Pandemic Risk:** A pandemic always introduces uncertainties to an economy. It causes health, economic and social problems, as noted with COVID - 19, because so many people are ill or can't work or die. The rapid outbreak of the coronavirus pandemic presents an alarming health crisis in the world. In addition to the human impact, there is also significant economic, business and commercial impact being felt globally.

### Concept of Risk Management Practices

Risk Management refers to the process of identifying, assessing and prioritising risks to coordinate and ensure economical use of available resources to minimise, monitor, and control such risks to reduce the elasticity of its occurrence and the impact of unfortunate events (Soyemi, Ogunleye & Ashogbon 2014). It involves identifying and selecting the most appropriate strategies for effectively treating various loss exposures an organisation faces.

According to Shim, Siegel & Shim (2012), firms often use a three - step process for managing risks. They are:

- 1) Identify the risks faced by the firm.
- 2) Measure the potential impact of each risk. Some risks are so small as to be immaterial, whereas others can destroy the company.
- 3) Decide how an entity should handle each relevant risk. In most situations, risk exposure can be reduced through one of these techniques:
  - a) Transfer the risk to an insurance company.
  - b) Transfer the function that produces the risk to a third party.
  - c) Purchase derivative contracts to reduce risk. Firms use derivatives to hedge risks.
  - d) Reduce the probability of occurrence of an adverse event.
  - e) Reduce the magnitude of the loss associated with an adverse event. For instance, designing facilities with self - contained fire zones and locating facilities close to a fire station.
  - f) Avoid the activity that gives rise to the risk. For example, an entity might discontinue a product or service line because the risks outweigh the rewards.

The risk management process involves:

- 1) **Establishing Context:** This includes understanding the current conditions in which the organisation operates internally, externally and risk management.
- 2) **Identifying Risks:** This includes documenting the material threats to the organisation's achievement of its objectives and the representation of areas that the organisation may exploit for competitive advantage.
- 3) **Analysing/Quantifying Risks:** This includes the calibration and, if possible, the creation of probability distributions of outcomes for each material risk.
- 4) **Integrating Risks:** This includes aggregating all risk distributions, reflecting correlations and portfolio effects, and formulating the results in terms of impact on the organisation's key performance metrics.
- 5) **Assessing/Prioritising Risks:** This includes determining the contribution of each risk to the aggregate risk profile and appropriate prioritisation.
- 6) **Treating/Exploiting Risks:** This includes the development of strategies for controlling and exploiting the various risks.
- 7) **Monitoring and Reviewing:** This includes the continual measurement and monitoring of the risk environment and the performance of the risk management strategies

In reaction to the identified dangers and continued economic threats, regulators in Nigeria had recommended that companies institute risk management practices on different occasions. As a result, the Financial Reporting Council of Nigeria (FRCN) issued the Nigerian Code of Corporate Governance (NCCG) for Nigerian companies for effective implementation from 1st January 2020. All public companies, private companies, concessioned or privatised companies, and regulated companies should comply with the Code.

The Federal Government of Nigeria also revised the Companies and Allied Matters Act in 2020 to incorporate matters or provisions relating to risk management, among other relevant business operations and management issues in Nigeria.

The developed risk management practices in this study are:

- 1) **Implementation of Enterprise risk management (ERM)** - This holistic approach in the management of risk in firms is referred to as *Enterprise Risk Management* (ERM). Companies use enterprise risk to look at their financial risks, regulatory risks and operational risks. ERM is defined as the process of assessing risks to identify both threats to a company's financial well-being and opportunities in the market.
- 2) **Existence of Risk Management Committee RMC** - Risk Management Committee (RMC) is a board's committee appointed to review the firm's risk management system.
- 3) **Appointment of Chief Risk Officer** - Chief risk officer refers to an executive or top management staff managing risks to the company. He is also known as the chief risk management officer (CRMO) in a firm.
- 4) **Existence Audit Committee** - The audit committee in this study is a statutory audit committee that comprises members (representatives of shareholders) and non-executive directors.
- 5) **Size of Board** - Board size refers to the number of directors on the board of any given firm. The relationship between board size and performance may differ due to a firm's specific characteristics and the national institutional characteristics (Anis, Chizema, Lui & Fakhredin, 2017). There should be an optimum number of members to justify the size of the board. It should not be too small to perform the expected function, and it should not be too large to affect its efficiency. The maximum number of directors in a board of any firm is contained in its Articles of Association.
- 6) **Existence of Independent Director** - Independent director refers to a non-executive director of a firm that improves corporate credibility and governance standards. An independent director does not have any significant interest in a firm he serves and will not be influenced by personal interests while performing his duties as a director.
- 7) **Proportion or ratio of Non - Executive Directors** - Proportion or ratio of non-executive directors refers to the proportion of the non-executive directors in the board to the total board members. In practice, non-executive directors are expected to be more than the executive ones to justify the board's independence and position in the administration or management of a firm.
- 8) **Financial expertise of the Board** - Financial expertise means the board members' ability to analyse and interpret a full set of financial statements, including their notes, following generally accepted accounting principles. The lack of financial expertise on the board could affect a firm in many ways.
- 9) **Whistleblower Policy** - A whistleblower policy refers to the system established to make internal and external persons report suspected misconduct, illegal acts or

failure to act within the rules and regulations to the management. Whistleblowing is accepted as a way of exposing unethical or unlawful behaviour in Nigeria.

- 10) **Internal Audit** - The internal audit evaluates a company's internal controls, including its corporate governance and accounting processes (Tuovila, 2020). It ensures compliance with relevant laws and regulations to avoid the financial and non-financial costs associated with the entity's non-compliance or failure.

### Concept of Firm Performance

The concept of performance to the firm has attracted several debates because it means different things to different people and organisations; it is defined or viewed in different ways. It means the achievement of results. It can be an accounting measure or a market-based measure. Based on accounting indicators, performance measurement is measured using financial ratios, while capital market indicators are measured using calculations and information from the capital market. Performance can be financial or non-financial. Two accounting measures and a market-based measure were used in the study. They are:

- 1) **Return on Assets:** Return on Assets (ROA) is one of the most important measures of financial performance. It is a significant financial performance indicator and is calculated by dividing a firm's net income by its total assets.
- 2) **Return on Equity** refers to a measure of financial performance calculated by dividing net income by shareholders' equity. It is a measure of management's ability to generate income from the firm's funds made available by equity owners.
- 3) **Tobin's Q** - It is a typical market performance measurement different from the ROA and ROE. It is investors' perception of a firm's success as reflected by its share price in the capital market.

### Empirical review

#### Risk Management Practices and Performance

Johl, Kaur, and Cooper (2015) examine the impact of board characteristics and firm performance. Board characteristics in the study included board meetings, board independence, board size and directors' accounting expertise. The study used financial and non-financial data from annual reports of the 700 publicly listed Malaysian firms in 2009. Descriptive statistics and the Ordinary Least Square method were used to analyse data obtained for the study. It was found that board independence does not affect firm performance, whilst board size and board accounting/financial expertise are positively associated with firm performance. The focus of the study was on board characteristics, it was done outside Nigeria, and several changes could render their result weak in today's business environment.

In another study, Salaudeen, Atoyebi & Oyegbile (2018) evaluate the relationship between enterprises risk management and the performance of consumer goods companies listed on the Nigerian Exchange Limited (formerly Nigerian Stock Exchange). The study focused on twenty-five consumer goods companies listed in Nigeria, a



scope smaller than this research. The study adopted an ex post facto research design, and data were obtained from annual reports and accounts of selected consumer goods companies. The collected data were analysed using descriptive statistics and generalised least square analytical methods. The results revealed that the Risk Management Committee, Financial Experts, Audit Committee, and Board size have a significant positive effect on firms' performance. The existence of a Chief Risk Officer, on the other hand, has no significant impact on performance. Although the study took place in Nigeria, obtaining responses with questionnaires may not provide the reality of these variables in most organisations, the questionnaire was prepared only for the research, and the respondents may give false information, but the secondary information helps the majority, including the stakeholders of the firm hence would be more open and authentic. To this end, this present study used secondary sourced information to reaffirm the relationship between risk management and firm performance among non - financial firms in Nigeria.

Sinurat & Siregar (2019) examine the effect of risk management on the financial performance of listed firms on the Indonesia Stock Exchange for the year 2015 - 2016. The study involved 710 observations. The proxies used are the appointment of the Chief Risk Officer, the establishment of a risk management committee, and the Chief Executive Officer's financial competence. Financial performance was measured with return on assets and price - to - book value. The study results showed that the appointment of the Chief Risk Officer and the establishment of the risk management committee have no significant effects on both measures of financial performance: ROA and ROE. However, the Chief Executive Officer's financial competence significantly impacts the firm market (Tobin's Q) and financial performance (ROA and ROE). Thus, though the proxies for risk management used in the study are relevant, they are inadequate. Also, the use of a Chief Risk Officer to represent risk management variables is too inelastic. To this end, there is a need to extend the risk management variables as much as possible to cover a wide array of recommended practices.

#### **Risk Management Practices and Return on Assets**

Kajola, Onaolapo&Adelowotan (2017) examine the relationship between board size and financial performance using ROA of 35 non - financial firms listed on the Nigerian Exchange Limited, sampled from 183 non - financial firms listed between 2003 and 2014. Secondary data were obtained from the audited reports and accounts of the selected firms and the Nigerian Exchange Limited FactBooks for 2003 - 2014. Using panel data regression analysis and fixed effects model as an estimation technique, the result of the study showed a positive and significant relationship between board size and the ROA financial performance of the firms. The outcome of the study was consistent with some previous studies, but the scope was too narrow. Research focusing on a board size alone and performance will not do justice to risk management and performance variables. The Directors alone cannot manage the entity's risk; hence, the board's size is inadequate to measure risk management. Therefore, there is a need to expand the risk management variables towards establishing

their influence on firm performance. The study period and the number of sample firms were small.

In another study, Ahmad, Fadzil, and Abdullah (2018) examine the association between the Jordanian firms' audit committee and firm performance. The study used OLS regression to test the relationship between the independent variable and the dependent variable. The data comprised 228 firms which included industrial and services ones. The findings indicated a non - significant relationship between audit committee size and ROA. However, audit committee meetings have a significant and positive relationship with ROA. Therefore, though the audit committee is one of the risk management practices, the study should include other relevant variables for risk management practices and performance.

Also, Shivaani (2018) explore the relationship between the risk governance structure and firm performance of non - financial companies in India that constitute the CNX 500 index as of 31st March 2014 and for ten years from 1st April 2005 to 31st March 2015. The risk governance structure was based on nine variables, namely, size of the board, board diversity in terms of gender, the status of the chairperson, proportion of executive directors, proportion of independent directors, CEO duality, the existence of chief risk officer (CRO), risk management committee and whistleblower policy. Firm performance was also measured using the accounting - based return on assets (ROA) and return on equity (ROE). The study used a robust and reliable methodology, difference - GMM (Generalised Method of Moment), to control potential endogeneity among variables of interest. Also, to ensure completeness of results, the study considered control variables such as recession dummy, firm's age, size, growth rate, and leverage ratio. Unlike some previous studies, the results showed that robust risk governance structures do not necessarily lead to better firm performance; ROA and ROE are negatively related to the risk governance index. The implication is that a mere constitution of a risk management committee and CRO appointment will not improve firm performance. The research focused on risk governance, and only five independent and two dependent variables used were relevant to this study. As noted above, the result opened further research on the relationship between risk management practices and firm performance.

The effect of the risk management committee on firm performance and the intervening effect of the Risk Management Committee on the relationship between corporate governance, firm size, financial reporting risk, and firm performance were examined by Kinyua, Gakure, Gekara&Orwa (2015). Using the purposive sampling method, 299 non - financial companies listed in the Indonesia Stock Exchange (ISE) were selected. The study used secondary data obtained from the companies' annual reports, and the data were analysed using SPSS, version 20.0. The study found that the risk management committee affects firm performance, which ROA measured. It was also found that the risk management committee acts as the intervening variable in the relationship between corporate governance such as auditor reputation, the audit committee's independence, the board size, frequency of board meetings

and firm performance. It was also found that the risk of financial reporting affects firm performance through a risk management committee. The study's scope was narrow; it focused on the effect of the risk management committee alone on the firm performance and observed a year's data.

#### **Risk Management Practices and Return on Equity**

Akpan (2015) investigate the relationship between the frequency of board meetings and company performance using a sample from 79 non - financial companies listed on the Nigerian Exchange Limited from 2010 to 2012. Data were collected from secondary sources. The study adopted a cross - sectional research design and quantitative approach method. ROE measured the company's performance. Simultaneously, independent variables, corporate meetings and control variables were assessed through the total number of meetings held by directors and audit committee meetings, the board size, proportion of women directors (gender diversity), board age and director's equity. Descriptive statistics and multiple regression analysis were used for the study. The result showed that the board meetings, directors' equity and board size were negatively significant to the company performance. Audit committee meetings were found to be positively significant, while gender diversity and board age were not significant to the company performance measured with ROE. The variables used are not adequate, and the study covered a short period.

Adegbola, Tony, Adebajo, Babatunde, Awonusi, Eseosa, Ajayi & Damilola (2019) examine the relationship between ERM and selected manufacturing firms' performance on Nigerian Exchange Limited. The descriptive research design was adopted in the study using secondary data from the selected manufacturing firms' annual reports. The study revealed that the practice of ERM is positively and significantly related to a firm's performance which includes the level of return on equity (ROE) of the firms. The study also revealed that the liquidity level represented by the current ratio (CR) is positively and significantly related to the level of return on equity (ROE). On the other hand, leverage level, such as debt to total equity ratio of a firm, was negatively and significantly related to the return on equity. The study focused on the selected manufacturing against the entire non - financial sectors on the Nigerian Exchange Limited, and it measured firm performance with ROE alone. However, it has been revealed that ROE is not a perfect indicator of a company's performance; it is not a reliable indicator of efficiency when used alone. Hence, this present study used ROE and other performance variables.

Furthermore, Khan, Ali, Anjum & Noman (2019) investigate the relationship between ERM and firm performance with the moderating role of intellectual capital among non - financial listed firms in Pakistan. ROE was used to measure firm performance in the study. The data was collected from 130 non - financial listed firms from 2012 - 2015, while multiple regression was used to evaluate the relationship between the independent variable (ERM) and dependent variable (ROE) with interaction term (IC). The result showed an insignificant relationship between ERM and ROE. The result, however, showed a significant positive moderating effect of intellectual capital between ERM and ROE. The research used only ROE for performance and

ERM for the independent variable. Though the focus was on non - financial listed firms, the proxies used for independent and dependent are small, and the data were collected for only three years. Therefore, the findings need to be expanded to draw inferences from the results of the study. This study uses a considerable wide array of dependent and independent variables to draw inferences for the two variables and their relationship.

#### **Risk Management Practices and Tobin's Q**

In another study, Kalsie and Shrivastav (2016) assess the relationship between the board size and firm performance by employing panel data analysis of 145 non - financial companies listed in India's National Stock Exchange (NSE). The study was carried out on the performance of five years from 2008 to 2012, and Tobin's Q was among the firms' performance variables used. It employed the panel data regression model to analyse the relationship between the board size and firm performance (Tobin's Q). The fixed - effect model, random effect model and feasible generalised least square (FGLS) regression models were applied in the research. The results concluded that board size has a positive and significant impact on firm performance. However, using only the board size to explain firm performance could be misleading as no single variable could best explain firms' performance. In addition, the sample size was small and the period covered by the study was only five years. Qualitative aspects of the board were also not considered. Hence, there is a need to adopt several other risk management practices as used in this study.

In the same vein, Badu and Appiah (2017) observe a statistically significant and positive relationship between the board size and firm performance in their study, examining the impact of corporate board size on firm performance for non - financial listed firms in Ghana and Nigeria. A unique dataset of 137 listed firms from 2008 to 2014 was used. Descriptive statistics and the generalised system method of moments (GMM) were used for the analysis. The board size was an independent variable, while firm performance as the dependent variable was measured using market and accounting methods such as ROA and Tobin's Q. The study's findings revealed that board size is no longer adequate to manage risks; hence, the board of directors focus more on strategic matters, whereas risk management requires strategic, tactical, and operational attention. This study's analysis was limited to board size only, which is one of the risk management practices. The board composition can be enlarged to include board independence and gender diversity. The study justifies the need to extend tentacles to other risk management variables as deployed in this study.

#### **Theoretical Review**

Seven theories were considered relevant to the study, but the Stakeholders theory was the theoretical framework for the study. Other theories considered before the choice are *modern portfolio theory, financial distress theory, agency theory, system theory and emergency management, contingency theory, and resource - based theory.*

The researcher preferred the stakeholder theory because it emphasises the need to involve all the stakeholders and



satisfy them through companies' good performance. In addition, the theory can drive and increase firm profits and productivity by involving the firm's stakeholders in assessing and evaluating a firm's performance measurements and factors that could impact the firm performance. The theory holds that management or directors must understand and account for all the company's stakeholders. It states that a company's value grows when it values and recognises all its stakeholders as partners. Adapting the theory in risk management can also increase firms' social - economic status in the local and general communities. Firms that practised stakeholder theory create healthy competition among other firms, where all can thrive and benefit their stakeholders.

### 3. Methodology

This chapter outlines the research methods employed in this study. In this chapter, the researcher specified the data collection procedures used, population and sampling procedure, research instrument, and data analysis techniques.

#### Research Design

The research design adopted in this study is ex post facto research design. The method was selected because the researcher did not manipulate the collected data or variables; the pre - existing independent variables before the study were held constant and served as a control group for the stated hypotheses.

#### Population of the Study

The study population is made of all the public companies outside the Nigerian Exchange Limited's financial services as of 31st December 2019. There are 114 such companies representing 69% of the total listed companies (166) in Nigeria. Therefore, this research targeted the whole population, covering all non - financial companies in Nigeria from various industries or sectors, with different natures, sizes and operations.

#### Sample and Sampling Techniques

The study was meant for all companies in non - financial sectors (114 companies), but all of them were not in existence throughout the study's period. The researcher selected only companies that existed and made a profit for at least six years from the ten years covered by the study, 1st January 2010 to 31st December 2019. Forty - four companies, or 39% of the total number of non - financial companies, met the criteria and were selected for the necessary examination to achieve the study's objectives. It is noteworthy that all the ten sectors were represented as contained in Table 3.1 below:

**Table 3.1** Sample of Non - Financial Companies

S/N	SECTOR	No. of Firms	No. Selected	%
1	Agriculture	5	3	60
2	Conglomerates	5	3	60
3	Construction/Real Estate	8	4	50
4	Consumer Goods	20	12	60
5	Healthcare	11	4	36
6	ICT	10	1	10
7	Industrial Goods	15	6	40
8	Natural Resources	4	1	25

9	Oil and Gas	11	4	36
10	Services	25	6	24
		<b>114</b>	<b>44</b>	<b>39</b>

Source: Author's work

#### Validation and Reliability of the Data

According to Olabode, Olateju and Bakare (2019), obtaining data from multiple independent sources can assess data instruments and data's validity. The data for this study were collected from various sources. Most of the data were gathered from companies' financial statements and annual reports. The researcher used a mixed - methods approach to validate the data. The methods include content validity and triangulation. The researcher focused on the addition, subtraction, and multiplication of the quantitative data used, especially for measuring the firms' performance. Using triangulation, the researcher examined the data obtained from different sources. The data obtained from the multiple sources were checked for consistency, completeness and accuracy to ensure their reliability.

#### Method of Data Collection

Secondary data were used for the study; they were collected from journals, published textbooks, seminar papers, thesis, annual reports and accounts etc. The researcher collected most of the data from the Nigerian Exchange Limited through its website or database and its publications, Factbooks. The data covered a period of ten years (2010 - 2019).

#### Dependent Variables

The variables employed in this study to measure the dependent variable, firm performance, include Return on Assets (ROA), Return on Equity, and Tobin's Q.

#### Independent Variables:

Independent variables are ten and are listed below:

- Enterprise Risk Management
- Risk Management Committee
- Chief Risk Officer
- Audit Committee
- Board size
- Independent Directors
- Non - Executive Directors
- Financial Experts on the Board
- Whistleblower Policy
- Internal Audit

#### Method of Data Analysis

The secondary information obtained was subjected to analysis using the descriptive statistics, the frequency and percentage, graphs, etc., and the inferential statistics such as the multiple regression analysis, Analysis of Variance (ANOVA) and t - test analysis. The decisions were made from the results at a 0.05 level of significance. The researcher deployed descriptive statistics to analyse the study's research questions, which cuts across the level of existence of the dependent and independent variables of the study.

The researcher also deployed inferential statistics to investigate the relationship between the dependent and independent variables as revealed by the study's hypotheses. The study uses a multiple regression model, Analysis of Variance (ANOVA) and t - test analysis to explain the relational influence of the selected risk management practices on the performance of firms which were proxied by the return on assets, return on equity and Tobin's Q. Decisions were made from the various inferential statistics at 0.05 level of significant

**4. Results and Discussion of Findings**

The hypotheses of the study section provide the results for the hypotheses of the study. In this study, the study's hypotheses include establishing the relationship between the dependent and independent variables. Each hypothesis was subjected to a 0.05 level of a significance test, which depicts a 95% confidence interval.

**Analyses of Research Hypotheses**

**Testing of Hypothesis 1**

H0<sup>1</sup> – Risk management practices do not exist in non - financial listed firms in Nigeria.

In this section, the researcher used ten variables representing the independent variables in this study to confirm the existence or otherwise of risk management practices in non - financial listed companies in Nigeria.

The use of descriptive statistics revealed the following from the sampled non - financial firms in Nigeria:

- The enterprise risk management was implemented by 98% of the sampled firms.
- The existence of a risk management committee in the firms stood at 77%.
- A few non - financial firms (16%) appointed chief risk officers.
- 98% of the companies have a statutory audit committee.
- All the firms have more than two directors, which is the minimum number.
- Only 45% of the sampled firms appointed independent directors on their boards.
- Non - Executive directors are more than the executive ones on the board of the companies.

- Most of the sampled firms have more than three directors with financial expertise.
- 57% of the firms had adopted the whistleblower policy
- All non - financial firms in this study have an internal audit department.

**Testing of Hypothesis 2**

H0<sup>2</sup> – It is impossible to ascertain the stage of implementing risk management practices by the non - financial listed firms in Nigeria.

The development of risk management practices can be grouped into four stages: awareness stage, interest stage, implementation or adoption stage, and evaluation and control stage. It was revealed in the study that risk management practices among non - financial listed companies in Nigeria have gone above awareness and interest stages. This is because they knew most of the researcher's risk management practices, have adopted them perhaps in principle, and seek more information about them from time to time. Therefore, the risk management practices are at the implementation or adoption stage, where their objectives are matched with the implementation. The last stage of such development is the evaluation and control stage which may take non - financial companies in Nigeria some years.

**Testing of Hypothesis 3**

H0<sup>3</sup> – Risk management practices have no relationship with the performance of the non - financial firms listed on the Nigerian Exchange Limited. The relationship between the risk management practices and firm performance was tested using inferential statistics (t - test analysis and regression analysis). The risk management variables were tested against each of the measures of performance. The results showed no significant relationship between risk management practices and firm performance (p>0.05).

**Testing of Hypothesis 4**

H0<sup>4</sup> – The performance of non - financial listed firms in Nigeria is not influenced by any risk management practices. The influence of all risk management practices on firm performance was tested by combining all the variables (joint). Inferential statistics, regression analysis and ANOVA were used to test whether any risk management practices can influence the performance of non - financial firms in Nigeria.

**Table 4.1:** Regression analysis for Return on Assets (relative Contribution)

Model		Coefficients <sup>a</sup>				
		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	- 25.745	18.146		- 1.419	.171
	Board Size	1.726	1.062	.403	1.626	.120
	RMC	11.418	11.403	.326	1.001	.329
	Prop. N - Exe.	27.311	14.184	.374	1.925	.069
	CRO	7.262	10.073	.207	.721	.479
	Aud. Comm.	2.562	12.545	.039	.204	.840
	WBP	- 8.122	5.084	-.331	- 1.598	.126
	Ind. Dir.	.674	1.759	.085	.383	.706
Fin. Expertise	- 2.490	1.706	-.361	- 1.459	.160	

a. Dependent Variable: Return on asset  
 b. R = .645<sup>a</sup>  
 c. R Square = .416  
 d. Adjusted R Square = .182

Source: Author's Calculation, 2020

The dependent variable in this regression model is the return on assets of the non - financial firms, which is a significant variable in firms' performance. The independent variables in this model are the risk management practices which are:

- ERM* represents enterprise risk management
- RMC* represents Risk Management Committee
- CRO* represents the appointment of Chief Risk Officer
- Aud. Comm.* represents the existence of the Audit Committee,
- Board size* represents the size of board members in the firms
- Prop. N - Exe.* represents the proportion of non - executive directors to the total Board members of the non - financial firms
- Ind. Dir.* Represents the existence of an independent director,
- Fin. Exp.* Represents financial expertise of the board,
- WBP* represents the adoption of a whistleblower policy,
- Int. Aud.* Represents the existence of Internal Audit in non - financial firms.

However, the regression model removed the implementation of enterprise risk management (ERM) and internal audit existence in the non - financial firms (Int. Aud.) because they possess a high constant or have missing correlations in the available data used in the model. Hence, only eight of the variables of risk management practices were used in the

regression model analysis, and results were presented in Table 4.1. Only board size, the proportion of non - executive directors, independent directors, and the number of financial expertise were captured as ratio variables and were directly used for regression analysis. However, others were captured in categorical variables. Hence, they were transformed into dummy variables to be able to be included in the regression model.

The regression result in Table 4.1 revealed that no variables of the risk management practices were found to be statistically significant ( $p > 0.05$ ) to influence the return on assets of the non - financial firms. This implies that risk management practices variables used in the study did not significantly influence the return on assets of the non - financial firms.

In summary, there is no significant relationship between risk management practices variables and return on assets of non - financial firms. The risk management variables could not influence each other to drive non - financial firms' performance through return on assets.

Also, Table 4.2 showed a significant joint effect of the variables of risk management practices on the return on assets of the non - financial firm.

**Table 4.2:** ANOVA for Return on Assets (Joint Contribution)

ANOVA <sup>b</sup>						
Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	1759.510	8	219.939	1.781	.141 <sup>a</sup>
	Residual	2470.492	20	123.525		
	Total	4230.002	28			
a. Predictors: (Constant), Fin. Exp, CRO, Aud. comm., Prop. N - Exe., Ind. Dir., WBP, Board size, RMC						
b. Dependent Variable: return on asset						

Source: Author's Calculation, 2020

The ANOVA result in Table 4.2 revealed no significant joint effect of risk management practices variables on the return on assets of the non - financial firms used in this study

( $p > 0.05$ ). Therefore, it implies that the risk management practice variables in this study do not significantly influence the return on assets of the non - financial firms.

**Table 4.3:** Regression analysis for Return on Equity (relative Contribution)

Coefficients <sup>a</sup>						
Model	Unstandardised Coefficients		Standardised Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	- 219.658	135.679		- 1.619	.121
	Board Size	20.412	7.939	.636	2.571	.018
	RMC	63.287	85.260	.241	.742	.467
	<i>Prop. N - Exe.</i>	175.317	106.053	.320	1.653	.114
	CRO	33.258	75.313	.127	.442	.664
	Aud. Comm.	5.091	93.795	.010	.054	.957
	WBP	- 60.793	38.011	-.330	- 1.599	.125
	Ind. Dir.	- 10.077	13.154	-.169	-.766	.453
Fin. Expertise	- 22.303	12.757	-.431	- 1.748	.096	
a. Dependent Variable: Return on equity						
b. R = .648 <sup>a</sup>						
c. R Square = .420						
d. Adjusted R Square = .188						

Source: Author's Calculation, 2020

The dependent variable in this regression model is the return on equity of the non - financial firms, which is a significant variable in firms' performance. This model's independent

variables also include the risk management practices variables as provided in the research hypothesis. The regression model for this hypothesis removed enterprise risk



management (ERM) and the existence of internal audits in the non - financial firms (Int. Aud.) because they possess a high constant or have missing correlations in the available data used in the model. Hence, only eight of the variables of risk management practices were used in the regression model analysis, and results were presented in Table 4.3.

The result of Table 4.3 showed that only the board size of firms was statistically significant ( $p < 0.05$ ); hence, it influences the return on equity among the non - financial firms. Also, a unit increase in the board size among firms would create a 64% impetus on the return on equity of non - financial firms. However, other variables such as risk

management committee (RMC), the appointment of chief risk officers, the existence of audit committee, presence of the independent director, the proportion of non - executive directors to the total board members of the non - financial firms, financial expertise of the board, adoption of a whistleblower policy among others do not have a significant influence on the return on equity among the non - financial firms ( $p > 0.05$ ).

Table 4.4 revealed the considerable joint effect of the risk management practices variables on return on equity among the non - financial firms.

**Table 4.4:** ANOVA for Return on Equity (Joint Contribution)

ANOVA <sup>b</sup>						
	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	99902.754	8	12487.844	1.808	.135 <sup>a</sup>
	Residual	138111.621	20	6905.581		
	Total	238014.375	28			
a. Predictors: (Constant), Fin. Exp, CRO, Aud. comm., Prop. N - Exe., Ind. Dir., WBP, Board size, RMC						
b. Dependent Variable: Return on equity						

Source: Author's Calculation, 2020

The ANOVA result in Table 4.4 revealed no significant joint effect of the risk management practices variables on the return on equity of the non - financial firms used in this study ( $p > 0.05$ ). This implies that the risk management practices variables used in this study do not significantly influence the return on equity of the non - financial firms.

*There is no significant relationship between risk management practices variables and the Tobin's Q of non - financial firms.*

The regression analysis was also used to analyse the relationship and effect; hence, the result provided a relative

and joint contribution of the selected risk management practices variables on the Tobin's Q of non - financial firms. The adjusted R square was .11, which revealed that risk management practices variables accounted for 11% of all the crucial factors that could influence Tobin's Q of non - financial firms.

The regression model for the hypothesis showing the relationship and effect of such a relationship between risk management practices and Tobin's Q is presented in Table 4.5.

**Table 4.5:** Regression analysis for Tobin's Q (relative Contribution)

Coefficients						
Model		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.823	5.033		.561	.581
	Board Size	-.312	.294	-.274	-1.059	.302
	RMC	-2.020	3.163	-.217	-.639	.530
	Prop. N - Exe.	-.212	3.934	-.011	-.054	.958
	CRO	-1.893	2.794	-.203	-.678	.506
	Aud. Comm.	2.914	3.479	.166	.838	.412
	WBP	-2.038	1.410	-.313	-1.446	.164
	Ind. Dir.	1.057	.488	.500	2.166	.043
	Fin. Expertise	.862	.473	.470	1.822	.083
a. Dependent Variable: Tobin's Q						
b. R = .604 <sup>a</sup>						
c. R Square = .356						
d. Adjusted R Square = .111						

Source: Author's Calculation, 2020

The dependent variable in this regression model is Tobin's Q of the non - financial firms, a significant variable of firms' performance. The independent variables in this model also included risk management practices as provided in the research hypotheses. The regression model also removed enterprise risk management (ERM) and internal audit in the non - financial firms (Int. Aud.) because of a similar reason earlier given. Hence, only eight of the risk management

practices variables were used in the regression model analysis, and results were presented in Table 4.5.

The result of Table 4.5 revealed that only independent directors on the boards of non - financial firms were statistically significant ( $p < 0.05$ ). Hence, it influences Tobin's Q of the non - financial firms. Also, a unit increase in the board size among firms would create a 50% impetus on

Tobin's Q of non - financial firms. However, other variables of risk management practices such as risk management committee (RMC), the appointment of chief risk officers, the existence of audit committee, the board size, the proportion of non - executive directors to the total board members of the non - financial firms, financial expertise of the board, adoption of a whistleblower policy among others do not

have a significant influence on the Tobin's Q of the non - financial firms ( $p > 0.05$ ).

Table 4.6 revealed the considerable joint effect of the risk management practices variables on Tobin's Q of the non - financial firms.

**Table 4.6:** ANOVA for Tobin's Q (Joint Contribution)

ANOVA <sup>b</sup>						
	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	109.123	8	13.640	1.436	.242 <sup>a</sup>
	Residual	190.040	20	9.502		
	Total	299.163	28			
a. Predictors: (Constant), Fin. Exp, CRO, Aud. comm., Prop. N - Exe., Ind. Dir., WBP, Board size, RMC						
b. Dependent Variable: Tobin's q						

Source: Author's Calculation, 2020

The ANOVA result in Table 4.6 revealed no significant joint effect of the risk management practices variables on the Tobin's Q of the non - financial firms used in this study ( $p > 0.05$ ). This implies that the risk management practices variables used in this study do not significantly influence Tobin's Q of the non - financial firm.

The results of the tests showed that:

- Only the board's size had significant relationship on ROE.
- Only the independent directors had significant relationship on Tobin's Q.

## Conclusion

The chapter presents the summary, conclusions and recommendations made from the study. It is further divided into five, namely the summary, conclusions, recommendations from the study, contributions to knowledge and suggestions for further findings and studies.

## 5. Summary of Findings

The findings of this study revealed that:

- Only a few non - financial firms are making profits in Nigeria.
- Most of the non - financial firms have implemented enterprise risk management in their firms.
- A significantly higher proportion of non - financial firms have a risk management committee.
- Only seven or 16 per cent of the sampled companies employed chief risk officers.
- The statutory audit committee has come to stay in the non - financial firms in Nigeria.
- All non - financial firms have more than the minimum number of directors, (2) provided by the Companies and Allied Matters Act.
- Some non - financial firms have at least one independent director, but only six of the forty - four companies or 14 per cent have up to three as required by the CAMA 2020.
- Some non - financial firms have a higher proportion of non - executive directors than the executive ones on the board. The study confirmed that 71 per cent of the board members in the companies selected are non - executive directors.

- Also, some of the non - financial firms have a reasonable number of directors with financial knowledge and skills. For example, about 31 per cent of the directors of the sampled companies have financial knowledge.
- An average of the population of the non - financial firms in Nigeria adopts a whistleblower policy.
- All the non - financial firms established internal audits.
- The identified risk management practices do not significantly influence the return on assets, return on equity and Tobin's Q when measured independently.
- When all the risk management practices are measured together with return on equity, only the board size showed a significant relationship with the dependent variable.
- Only the independent director showed a significant relationship with Tobin's Q when all the risk management practices are tested simultaneously.
- In summary, the stage of implementing the risk management practices in non - financial companies has improved over the years, but they have not had an appreciable impact on their performance.

## 6. Conclusion

In summary, all the identified risk management practices do not significantly affect the performances of non - financial firms in Nigeria. This does not, however, undermine the significance attached to these risk management practices in organisational studies. The implementation of some risk management practices such as the implementation of ERM, the appointment of Independent Directors, significance ratio of non - executive directors, risk management committee, the appointment of chief risk officer, and adoption of a whistleblowing policy has not reached an appreciable maturity level. The debate on the effect of risk management practices has not been resolved. Therefore, the outcome of this study will add to the ongoing discussion on the impact of risk management practices on the companies' performance.

## 7. Recommendations

The following recommendations are made to ensure that risk management practices positively impact non - financial companies' results:

- The companies should consider the qualification, experience and integrity of directors before their appointment. In addition, non - executive directors appointed by firms should have connections that would be beneficial to their firms.
  - The board of directors should link the identified risk management practices to risk management if that was not considered at the time of their establishment or appointment through a review of their charters.
  - The risk management committee should be strengthened with qualified individuals and headed by an independent non - executive director. In addition, the number of independent directors in the committee should be more than other directors.
  - Non - financial firms should review internal audits as a function in Nigeria; it should act as an independent reviewer to assure the management's capability and performance in risk management.
  - Faithful implementation of enterprise risk management and other risk management practices will go a long way to influencing the various outputs or results of non - financial firms in Nigeria.
  - Every stakeholder should be involved in risk management to fast track the growth of the non - financial firms in Nigeria.
  - Risk management professionals should come together as a distinct professional body to train and develop more persons.
  - Non - financial companies are advised to be guided by the risk management practices in this study and move beyond mere compliance with the laws and guidelines.
  - The non - financial companies should include the details of members of the relevant committees and officers considered in this study in the companies' annual reports to ensure a better assessment of their effectiveness by the stakeholders and researchers in the future.
  - Companies should consider qualifications and experiences in the appointment of all officers and members of committees considered in risk management practices.
  - Whistleblowing needs to be backed by appropriate laws to work better; the laws should address issues such as whistleblower protection to assist the system.
  - The government must show more interest in the continued existence of non - financial companies. In addition, the regulatory bodies such as the SEC, CAC and FRCN should monitor compliance with the risk management frameworks and practices.
  - The FRCN, Nigerian Exchange Limited, and Institute of Directors should organise more training to build more remarkable financial skills and risk management strategies for directors of companies.
  - SEC should organise workshops for Shareholders Associations on risk management practices.
- (i) It identified eighteen various risks that are relevant to non - financial firms in Nigeria.
- (ii) It used ten proxies for risk management practices as independent variables and three measures of performance (dependent variables) to ensure that relevant risk management practices in Nigeria are considered. In addition, the researcher drew risk management practices from the provisions of the Companies and Allied Matters Act, National Code of Corporate Governance and other relevant regulations to the business of non - financial listed companies in Nigeria.
- (iii) The study examined the relationship between risk management practices and the performance of non - financial firms in Nigeria and not a sector and identified the practices that could influence firm performance if all the variables are combined. In addition, the researcher explored the relevance of implementing various risk management practices simultaneously by a business entity.

## 8. Suggestions for Further Studies

- The use of primary data to investigate the influence of risk management practices on firm performance.
- Further research could also be conducted on each risk management practice to ascertain their influences on the companies' performance.
- Each industry that made the non - financial sector could be examined differently because the performance variables (ROA, ROE and Tobin's Q) vary from one industry to another.
- A potential future study in this area can also examine the risk reporting framework for which the CRO is responsible and the consequences linked to the efficiency of risk management functions.
- Further research on the small group could investigate the relationship between performance and risk management, adopting the COSO ERM framework.

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## Contributions to Knowledge

The study contributed to the growing knowledge of the impacts of risk management practices on firm performance, especially non - financial listed firms in Nigeria. Such contributions include:



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