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RISK COMMITTEE AND FINANCIAL PERFORMANCE: EMPIRICAL INVESTIGATION OF OIL AND GAS FIRMS LISTED ON NIGERIA EXCHANGE GROUP

Dr. Lawrence Edeh[1] | Frankline C. S. A. Okeke[2] | Oyewole Olubukola Sarah[3] | Ezeilo Chinonye Beatrice[4] | Ogboi Emeke[5]

[1,2,3] Department of Accountancy, Alex Ekwueme Federal University Ndufu-Alike, Ebonyi State, Nigeria.

[4] Department of Accountancy, Akanu Ibiam Federal Polytechnic, Unwana, Ebonyi State, Nigeria.

[5] Department of Accounting and Finance, Faculty of Management Sciences, University of Delta, Agbor, Delta State, Nigeria.

Abstract

The question of efficiency of risk management committee to quench the uprising of corporate failure has called to mind the need for its robust investigation. Hence this study ex-rayed the effect of risk management committee on the financial performance of oil and gas firms listed on Nigeria exchange limited from 2013 to 2022. The study established four research objectives that ranged from investigating the influence of risk committee size, committee gender diversity, committee meeting and committee independence on the financial performance of oil and gas firms in Nigeria. The study also had four hypotheses that were formulated in line with the objectives. Ex post facto research design was adopted and sample of nine oil and gas firms were taken from the total population of ten firms on the list. Secondary data was collected from the annual reports of the nine firms from 2013 to 2022. Descriptive statistics, correlation and ordinary least square regression analysis were used to analyze the data when they had complied with ordinary regression estimation assumptions. The results of the study show that risk committee independence has positive and statistical significant effect on return on assets of oil and gas firms in Nigeria at 1% level, risk gender diversity has positive and weak statistical significant effect on at 10% level on return on assets of oil and gas firms. While risk committee size and risk committee meeting have no significant effect on oil and gas firms listed on Nigeria exchange limited. The study recommends amongst others that the firms should increase the proportion of independent risk committee members above the average of 42% since they oblige management to exploit opportunities for greater profit performance.

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Corresponding Author

frankline.okeke@funai.edu.ng

Keywords

Risk committee, financial performance, oil and gas firms, Nigeria exchange group

BACKGROUND OF THE STUDY

One of the primary facets of corporate governance, which is the responsibility of the board of directors, is risk management. One explanation for this belief, according to Ramlee and Ahmad (2015), is that risk management is intended to make it easier for the board of directors to supervise the risks facing the company. In that instance, the risk management committee is the board of directors committee tasked with creating, enforcing, regulating, and assessing the organization's risk policy framework. It also establishes the firm's tolerance for risk, which will inevitably lower risk and boost company performance (Odubuasi, Ofor & Okoye, 2020). Usually, board members, top executives, and other pertinent stakeholders make up this committee.

Global financial institutions suffered enormous setbacks as a result of their inability to completely incorporate risk management methods into corporate governance (CG) (Quon, Zenghal & Maingot, 2012; Core et al., 2006; Dermine, 2013, Elamer, 2017; Odubuasi, Ofor & Okoye, 2020). To protect their sustainability, the performance and risk-taking practices of financial institutions have come under closer examination (Ibrahim et al., 2020; Abdullah & Ismail, 2015). Prior to the creation of the risk committee, the audit committee was responsible for risk management procedures. However, it became necessary to divide the responsibilities due to the audit committee's immense problems and responsibilities, which include risks related to currency exposure, a complex risk environment, and technological innovation (Elamer & Benyazid, 20I8; Ng et al., 2012; Walker, 2009). Nonetheless, studies indicate that the creation of a distinct risk committee improves business performance and lowers agency issues (Choi, 2013). Because of this, a lot of financial institutions set up independent risk committees to handle tasks like determining risk appetite and limits, mitigating risks, reviewing risk profiles, monitoring risks, and receiving and reviewing reports of risk issues. Nevertheless, the purpose of this study was to determine how well the characteristics of the risk management committee stimulated the financial performance of Nigerian oil and gas companies.

Statement of the problem

A distinct risk management committee has been emphasized due to the regulatory bodies' escalation of the audit committee's responsibilities, insufficient experience, and the time required providing oversight of the organization's risk monitoring activities (Yatim, 2009). Many large internal firms have collapsed due to inadequate risk regulation, including Worldcom, Barings Bank, Metallgesellschaft, Orange Country, Long Term Capital Management Fund (LTCM), Enron, and Parmalat (Odubuasi, Ofor & Ilechukwu, 2022; Onder & Ergin, 2012). Companies should effectively establish risk management programs in part because of these shortcomings (Quon, Zenghal & Maingot, 2012).

Attention of scholars on the subject matter at both local and international research has been on banking or financial service firms. For instance, studies overseas dwelling on risk committee and performance but were anchored on financial institutions included Jordan banks (Alqudah, et al., 2019); Malaysian financial institutions (Kallamu & Saat, 2013); Asian financial institutions (Battaglia & Gallo, 2015); UK financial institutions (Elamer & Benyazid, 2018), and differently in South African mining firms (Ahmed, et al., 2018). Pertinently, other related studies in Nigeria were also anchored on financial institutions; Nigerian banks (Odubuasi, Ofor & Okeke, 2018; Chou & Buchdadi, 2017; Abubakar, et al., 2018), Nigerian Insurance firms (Ibrahim, et al., 2020) and Nigeria financial institutions (Kakanda, et al., 2017). To this end, we observe with keen interests that scant literature was anchored on Nigerian oil and gas firms to ascertain if the outcome would be the same with that of banking industry. Hence this study was set to investigate the effect of risk management committee on the financial performance of oil and gas firms listed on Nigeria exchange limited.

Objectives of the Study

The main objective of this study is to investigate the effect of risk management committee on financial performance of quoted oil and gas firms in Nigeria. Specifically the study was set;

1. To investigate the impact of risk management committee size on the return on assets (ROA) of quoted oil and gas firms in Nigeria.
2. To analyse the relationship between risk management committee meeting frequency and the return on assets (ROA) of quoted oil and gas firms in Nigeria.
3. To assess the influence of gender diversity within the risk management committee on the return on assets (ROA) of quoted oil and gas firms in Nigeria.
4. To examine the effect of risk management committee independence on the return on assets (ROA) of quoted oil and gas firms in Nigeria.

Research Questions

This research aims to provide answers to the questions below:

1. To what extent does risk management committee size influence the return on assets (ROA)?
2. To what extent does risk management committee meeting frequency affect return on assets (ROA)?
3. To what extent does gender diversity within the risk management committee affect the return on assets (ROA)?
4. To what extent does risk management committee independence affect the return on assets (ROA)?

Research Hypothesis

In line with the objectives, the following hypotheses were formulated for this study;

H_{O1}: Risk Management Committee size has no significant effect on financial performance of quoted oil and gas firms in Nigeria.

H_{O2}: Risk Management Committee meeting has no significant effect on financial performance of quoted oil and gas firms in Nigeria.

H_{O3}: Risk Management Committee gender has no significant effect on financial performance of quoted oil and gas firms in Nigeria.

H_{O4}: Risk Management Committee independence has no significant effect on financial performance of quoted oil and gas firms in Nigeria.

Significance of the Study

This study is significant in providing empirical evidence that could ensure the credibility and integrity of accounting by providing the relationship between risk management committee characteristics and the return on assets (ROA) based on some oil and gas firms in Nigeria. The study will be of immense benefits to the following;

Risk managers: this will add value to the literature of risk management in Nigeria stock exchange. This is important since risk management committee sees to the risk management.

Policy makers: The study will also offer important input to serve as a strong base for the risk management profession to establish policies relating to the sector. This is important because most of the issues in this area are based on anecdotal evidence, particularly in Nigerian context since evidence regarding these issues has been relatively limited. The study therefore hopes not only to help enrich the literature, but also provides important quantitative information for policy formulation.

The Nigerian Exchange Group and the Securities and Exchange Commission (SEC) would find the outcome of the study beneficial as it will highlight the existence, nature and extent of the relationship between risk management committee characteristics and the return on assets (ROA) reporting quality in organizations.

Academia: this study will enrich researchers as well as academia for it will add to the existing literature on risk management committee.

Scope of Study

This study focused on the oil and gas sector on Nigeria exchange Limited between the years 2013 to 2022. The analysis considered variables of risk management committee such as size, meeting frequency, gender diversity and independence. The return on assets (ROA) will be used as the primary measure of financial performance.

REVIEW OF RELATED LITERATURE

Conceptual Framework

Risk Management

Risk management is the process of identifying, assessing and controlling financial, legal, strategic and security risks to an organization’s capital and earnings. These threats, or risks, could stem from a wide variety of sources, including financial uncertainty, legal liabilities, strategic management errors, accidents and natural disasters (Odubuasi, Ofor & Ugbah, 2022). If an unforeseen event catches your organization unaware, the impact could be minor, such as a small impact on your overhead costs. In a worst-case scenario, though, it could be catastrophic and have serious ramifications, such as a significant financial burden or even the closure of your business. To reduce risk, an organization needs to apply resources to minimize, monitor and control the impact of negative events while maximizing positive events (Elamer & Benyazid, 2018). A consistent, systemic and integrated approach to risk management can help determine how best to identify, manage and mitigate significant risks.

Risk Management Committee Size

The size of a risk management committee has been a topic of interest among researchers, with differing views on its impact on organizational performance. Some studies suggest that larger committees may lead to increased collaboration, diverse perspectives, and enhanced decision-making capabilities, resulting in superior risk management outcomes (Odubuasi, Ofo & Okoye, 2020; Gordon, 2009; Husaini & Saiful, 2017). However, other research argues that larger committees may suffer from coordination challenges, decision-making delays, and difficulty reaching consensus (Chou & Buchdadi, 2017; Ahmed et al., 2018).

It is important for organizations to strike a balance in committee size, considering their unique needs and structure. Ensuring adequate representation of relevant expertise and perspectives while avoiding excessive size is crucial for optimizing the effectiveness of risk management committees. The size of the committee has important consequences on its performance and capabilities. According to Erkens et al. (2012) and Smith Report (2003) risk committee must have at least three members to ensure proper functioning. DeFond et' al (2006) assert that the committee should be supported with sufficient authority and resources in order to operate fully. Agency theory predicts that increase size of RCs with varied knowledge might increase monitoring managers' behaviour towards risk management and ensure that investment is in line with strategic goals to avoid financial crisis via decrease adverse selection and moral hazard which can impact performance (Aebi et al., 2012; Jensen & Meckling, 1976; Yatim, 2010).

Risk Management Committee Independence

The independence of risk management committees refers to their ability to operate free from undue influence or bias. Research indicates a positive relationship between the independence of risk management committees and firm performance (Odubuasi, Ofor and Ilechukwu, 2022; Quon, Zeghal & Maingot, 2012; Ahmed, 2018). Independent committees have the authority and autonomy to make objective risk assessments and decisions, without being swayed by conflicts of interest.

Studies demonstrate that the presence of independent risk management committees is associated with reduced risk-taking behaviour, improved risk governance, and enhanced organizational performance (Odubuasi, Ofor & OKoye, 2020; Elamer & Benyazid, 2018). Independent committees are better positioned to challenge management decisions, provide a checks-and-balances system (Dionne & Triki, 2005; Ibrahim et al., 2020), and ensure that risk management practices align with organizational goals and values. From a theoretical point of view, agency theory suggests that when directors from outside the company or independent directors are appointed on the board, the corporate governance mechanism improves generally (Dionne et' al 2005). This implies that an outside director has an incentive to build the reputation as "expert monitors" which is why they are more likely to take proper control of the firm. Hence we anticipate that independence risk management committee will have positive effect on the performance of oil and gas firms under study.

Risk Management Committee Meetings

Regular committee meetings are a fundamental component of effective risk management. These meetings serve as a platform for members to discuss risk-related issues, review progress, and make informed decisions regarding risk mitigation strategies

(Odubuasi, Ofor & Ugbah, 2022; Ibrahim et al, 2020). The frequency, structure, and quality of these meetings can significantly influence the success of risk management practices within organizations (Zemzem & Kacem, 2014). Research suggests that frequent committee meetings facilitate timely identification and response to emerging risks, provide opportunities for knowledge sharing and learning, and promote a culture of proactive risk management (Odubuasi, Ofor & Ugbah, 2022; Ibrahim et al, 2020; Ahmed et al., 2018). Additionally, well-structured meetings with clear agendas and active participation from members contribute to enhanced decision-making processes and ultimately better risk management outcomes. Hence, this study proposed that frequency of risk committee meetings would improve the quality of financial performance of the oil and gas firms in Nigeria.

Risk management committee gender diversity

The issue of gender diversity within risk management committees has garnered increasing attention in recent years. Several studies have explored the impact of gender diversity on organizational outcomes, including risk management practices (Odubuasi, Ofor & Ilechukwu, 2022; Ahmed, 2018). These researches suggest that gender-diverse committees tend to exhibit a wider range of perspectives, knowledge, and decision-making styles, enhancing the effectiveness of risk management processes (Odubuasi, Ofor & Ilechukwu, 2022; Ahmed, 2018). Higher levels of gender diversity in risk management committees have been associated with improved risk identification capabilities, better risk assessment accuracy, and enhanced overall risk management performance. The presence of diverse viewpoints stemming from different gender perspectives can lead to more robust risk analysis, more comprehensive risk mitigation strategies, and ultimately contribute to better organizational outcomes. Therefore, this study proposed that gender diverse risk committee would have positive effect on financial performance of oil and gas firms sampled.

Return on Assets (ROA)

The return on assets is the financial ratio that indicates how profitable the company is in relation to its total asset (Odubuasi, Ofor & Ugbah, 2022). The risk management committee can use ROA to determine how efficiently a company uses its assets to generate profit. The metric is commonly expressed as a percentage by using a company's net income and its average assets. A higher ROA means a company is more efficient and productive in using each naira invested in assets of the business to generate income. Return on assets was commonly used in most extant literature (Odubuasi, Ofor & Ugbah, 2022; Chou & Buchdada, 2017; Elamer & Benazid, 2018; Zemzem & Kacem, 2014).

Theoretical framework

Agency Theory

The theory was first propounded by the economist Armen Alchian in the 1960s and was further developed by economists Michael C. Jensen et' al in the 1970a in their seminar 1970 article, "Theory of the firm: Managerial behaviour, agency cost and ownership structure", they outlined the key concepts of agency theory and its implications for the relationship between shareholders and management. According to agency theory, organizations are characterized by a principal-agent relationship, where principals (shareholders) delegate decision-making authority to agents (management). This theory suggests that conflicts of interest may arise between principals and agents, leading to agency costs.

The risk management committee can be seen as an extension of the board of directors, acting as agents on behalf of the shareholders. By effectively managing risks, the committee aims to safeguard the interests of shareholders and enhance financial performance, as measured by ROA. In effect, this study was anchored on agency theory because of its relatedness.

Empirical Framework

Elamer and Benyazid (2018) looked at the risk committee's impact on the financial performance of UK financial institutions. The research sample consists of 23 listed FTSE-100 benchmark financial institutions for the period 2010 to 2014. For the data analysis, ordinary lease square (OLS) regression model was employed; the explanatory variables comprised of risk committee (existence, size, meetings & independence), firm size, liquidity, gearing, audit quality and year dummies whereas the explained variable was the return on assets (ROA) and return on equity (ROE). The study findings showed a negative association between the characteristics of the risk committee (presence, scale, flexibility, and meetings) and the financial efficiency. The results also indicate that companies with no risk committee (RC) performed considerably well

Zraig and Fadzil (2018) had investigated the impact of audit committee characteristics on firm performance: Evidence from Jordan. The population of the study consisted of 228 listed industrial and services firms in Jordon for the period of two years, 2015 to 2016. The study tested the link between independent (AC size and meetings) and dependent variables (ROA and EPS) using OLS regression. The study results showed a good path but negligible relationship between the size of the audit committee and ROA while the size of the audit committee with EPS is good and important.

Malik (2017) studied Enterprise Risk Management and Company Performance: Role of the Four Year Risk Committee, 2012 to 2015 in the UK. The test study consists of 260 business-year evaluation and the application of regression used to analyze the relationship. The study findings revealed that ERM significantly and positively affects the firm performance measured by Tobin's Q. In addition, the presence of size in the risk committee has a positive but weak influence on the performance relationship with ERM.

Battaglia and Gallo (2015) used data from the Asian financial sector that focused on Indian and Chinese banks to establish the relationship between boards of directors with risk management mechanisms related to CFP during the financial collapse of 2007–08. No substantial link between productivity and RC size was disclosed in the tests.

Kallamu and Saat (2013) who investigated the effect on financial efficiency of the corporate governance system by collecting data from 37 financial institutions listed in the financial sector in Malaysia, using ROA and Tobin's Q as a performance metric for the period 2007 to 2011, shows that there is a positive relationship between the RC size and CFP.

Akpey and Azembila (2016) have researched the impact of an audit committee on the results of Ghana Stock Exchange listed companies. The sample size of the report consisted for the 2015 financial year of 36 traded stocks on the Ghana Stock Exchange.

Cross sectional regression model was used, and the version SPSS 17.0 was used. The study showed that the number of independent audit committee members had little impact on the company's results. However, the number of independent audit committee members with degrees in finance or accounting adversely affected the performance of the firm.

Abubakar, Ado, Mohammed & Mustapha (2018) work on the impact of skills of risk management committee and financial board information on the financial performance of listed banks in Nigeria; The study's population and sample size is comprised of fourteen (14) banks listed on the Nigerian Stock Exchange floor for a period of three years (2014-2016). The study used secondary data and random effect was adopted in analyzing the data. The results of the study reveals that risk management committee independence and board financial knowledge exhibit a significant negative effect with ROA while risk management committee size has a positive insignificant effect on ROA. The study recommends that the board should include more independence directors and more of board financial knowledge as these lead to banks performance.

Jimoh and Attah (2017) studied on risk management committee attributes and bank performance in Nigeria. For the purpose of this study, the sample of the study consists of 15 listed banks on the floor of the Nigeria Stock Exchange. The evidence was primarily secondary with implementation of multiple regression techniques. The study found that all variable risk governance except the size of a risk committee is positively related to returning on assets as indicators of bank performance. Accordingly, the study advises that risk committee leaders be adequately encouraged, meet more regularly, have more independent directors and more financial and risk experts as all of these contribute to improved bank results.

Kakanda, Salim and Chandren (2017) had investigated the risk committee characteristics and market performance: Empirical Evidence from listed financial service firms in Nigeria. The research statistical population was consisted of those Nigeria stock exchange 45 listed financials service firms analyzed from 2012 to 2016. By taking RMC characteristics and market performance as variables and to analyze data and test hypotheses of the present research descriptive statistics method and panel corrected standard errors (PCSEs) regression model was used. They concluded that risk management size has a significant but negative impact on firms' performance while RMC composition and RMC meeting have a significant positive effect on financial performance as expected by their hypothesis.

Malik et al. (2020) suggested that a large number of RMC meetings held indicate the existence of some problems directly related to the risks confronted by the company that requires the full attention of the RMC members. Moreover, previous studies revealed that companies that hold many RMC meetings are companies with poor financial performance and high risk

Ibrahim, Okika, Yunusa and Janada (2020) chose to investigate whether the Nigerian insurance firm's RCE size, its independence, and its expertise affect its performance or not. The study perched tenth on twenty-four (24) listed insurance companies in Nigeria. The study covered 6 years ranging from 2012 to 2018 financial years. The panel data collected was estimated with regression estimation technique, and they found that both the size of the RCE and its independence reduce ROA minimally. Meanwhile, its expertise reduces ROA significantly.

Ahmed et al. (2018) further took samples of the fourteen quoted banks on the floor of Nigeria Stock Exchange (NSE) and investigated whether Nigerian banks' RCE attributes and financial knowledge improve its financial performance from 2014 to 2016 financial year or not. The research measured the RCE, its independence and its financial knowledge as independent variables. While ROA, a measure for firm performance served as the dependent variable. The study disclosed that its size truly improves ROA minimally whereas its independence though reduces its ROA but such effect is small. However, its financial knowledge reduces its ROA to a very large extent. They recommended forthwith that other corporate governance characteristics should be researched upon by subsequent interested researchers. Only three years was covered by the study and it's not sufficient to ascertain the behaviour of the independent variables over time.

Zungu, Sibanda, and Rajaram (2018) sought to establish the relationship between ERM and the value of South African mining firms from 2004 to 2015. They applied pooled data design, having gathered data from companies that were able to publish their annual report for at least two years out of the eleven-years. Data for ERM (independent variable) was gathered from the Bloomberg Database and McGregor's BFA Database. Also, the data for firm value was gotten from the same source. In the data analysis, the Generalised Method of Moments (GMM) and the Dynamic Fixed Effect (DFE) estimations were applied. The study disclosed that ERM improves firm value but reduces the firm's risk levels. This was done in far-flung South Africa, however, and no other country was involved.

METHODOLOGY

Research Design

The study adopted an ex-post facto research design using secondary data. Therefore, the choice of ex-post factor design is induced because of its usefulness in applying existing data and its effectiveness in testing effect of one variable on another

Area of study

The research targets oil and gas sector of companies in the Nigeria Exchange Limited.

Population of the study

The samples for this research consisted of the ten oil and gas firm on the Nigeria exchange limited. Which comprise of ARDVOV PLC, CAPOIL PLC, CONOIL PLC, ETERNA PLC, JAPAUL GOLD PLC, MRS PLC, OANDO PLC, RAKUNITY PLC, SEPLAT PLC, and TOTAL PLC.

Sampling Techniques

Purposive sampling was applied to select nine oil and gas firms listed on Nigeria exchange limited. Out of the ten oil and gas firms listed, capital oil Plc. was delisted from the exchange market in the year 2020. Hence the reason for the nine companies used as the sample size.

Method of data collection

Data for the study was collected from annual reports and accounts of the selected oil and gas firm by picking the relevant financial figures from the annual reports.

Models Specification and variable measurement

This study uses the following multiple regression model to analyse data and examine the possible cause and effect relationship between RMCs' characteristics as independent variables and firm financial performance proxy by *ROA* as a dependent variable. The model for the study was presented in a stochastic form as below;

$ROA_{it}= \beta_0 + \beta_1 RCIND + \beta_2 RCSIZE + \beta_3 RCGDTY + \beta_4 RCMEETING + \mathcal{E}_i$

Where;

ROA= Return on Assets

RCIND= Risk management committee independence

RCSIZE= Risk management committee size

RCGDTY= Risk management committee gender diversity

RCMEETING= Risk management committee meeting

β_0 = Constance

$\beta_1 - \beta 4$ = Regression coefficient

$\mathcal{E}_i$ = Error term

Table 1: Variables Definition, Measurements

Abbreviation	Variable	Definition
ROA	Return on Assets	Measured as net profit divided by total assets.
RCSIZE	Risk committee size	The total members in the risk committee.
RCMEETING	Risk Committee Meeting	The number meetings of the risk committee in a year.
RCIND	Risk management committee independence	Percentage of non-executive members to the total members in the RC
RCGDTY	Risk committee gender diversity	Percentage of female to total members in the Risk committee

Source: *Researcher's Computation (2023)*

DATA ANALYSIS AND INTERPRETATION

Data Analysis

The study utilized the under listed analytical tools that include:

Table 2: Descriptive Statistics Table

stats	ROA	RCMEET~S	RCGDTY	RCIND	RCSIZE
mean	.1734048	1.62963	39.85274	41.81036	2.285714
p50	.245	1	37.7	45	3
sd	0.310878	1.763834	13.76414	42.58256	2.346859
max	16.32	6	66.6	100	9
min	-1.58	0	0	0	0
N	84	84	84	84	84

Source: *Author's Computation (2023)*

Table 4.2.1 above, shows that the oil and gas firms' average figure for Return on Assets (ROA) for the period is 17% which is an indication that the firms really had good outings within the periods. Though, the standard deviation of 0.31 implies that much variation existed on the earning strength of the firms. It was also seen that the companies sampled have meetings twice on the average for each year as shown by RCMEETING statistical value of 1.6. The highest number of meetings in a year was 6 times while no company's committee failed to host meeting in any year. Risk management committee gender diversity (RCGDTY) indicates that on the average, 40% of the committee members are women. Finally the table shows that average number of two persons served in risk management committee of oil and gas firms for the years covered by this study while the peak period recorded nine persons as the committee members.

Table 3: Normality Test: Shapiro-Wilk W Test for Normal Data

Variable	Obs	W	V	z	Prob>z
ROA	84	0.46404	38.294	8.009	0.00000
RCMEETINGS	81	0.92270	5.360	3.681	0.00012
RCGDTY	84	0.96429	2.552	2.058	0.19579
RCIND	84	0.95114	3.491	2.747	0.00301
RCSIZE	84	0.91427	6.125	3.982	0.00003

Source: *Author's Computation (2023)*

From the results obtained above, it is observed that the independent variable of risk committee gender diversity (RCGDTY) with Prob > z = 0. 195 is not normally distributed at 5% while other variables that include risk management committee meetings, risk management committee size, risk management committee independence and ROA are not normally distributed at 1% significant level. Hence the study employed the use of non parametric test on the test of correlation.

Table 4: Correlation Analysis: spearman ROA RCSIZE RCIND RCGDTY RCMEETINGS (obs=81)

	ROA	RCSIZE	RCIND	RCGDTY	RCMEET~S
ROA	1.0000				
RCSIZE	-0.2841	1.0000			
RCIND	-0.1140	0.7325	1.0000		
RCGDTY	-0.1414	0.0030	-0.1484	1.0000	
RCMEETINGS	-0.2669	0.8580	0.7905	-0.0578	1.0000

Source: *Author's Computation (2023)*

From table 4.2.3 above, we discovered that ROA has negative relationship with all the independent variables. On the other hand, risk committee independence has positive strong relationship with risk committee size (RCSIZE/RCIND = 0.7325). Risk committee gender diversity has very low positive correlation with risk committee size (RCGDTY/RCSIZE=0.0030). Risk committee meetings has strong positive correlation with risk committee size (RCSIZE/RCMEETINGS = 0.858). Risk committee meetings have strong positive relation with risk committee independence (RCMEETINGS/RCIND = 0.79). Furthermore, risk committee expertise has very low negative correlation with risk committee meetings. However some correlation coefficient pose threat of multicollinearity since they are as high as 0.8. To this effect, the study conducts multicollinearity test to check if strong collinearity among the independent variables exists using variance inflation factor.

Table 5: Multicollinearity Test

Variable	VIF	1/VIF
RCSIZE	3.76	0.265981
RCMEETINGS	3.60	0.277799
RCIND	3.02	0.331062
RCGDTY	1.08	0.923179
Mean VIF	2.87	

Source: *Author's Computation (2023)*

The result on table 4.4 above shows that the mean VIF is 2.87, which is far less than the acceptable bench mark mean VIF of 10. Hence we can derive from the result that no high collinearity exists among the independent variables.

Table 6: Heteroscedasticity Test

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Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of ROA

chi2(1)      =    53.07
Prob>chi2    =     0.3400
```

Source: *Authors' Computation (2023)*

The probability value of 0.340 is higher than the critical value of 0.050 which is an indication that the variance error term is not heteroscedasticity. Meaning that, no presence of heteroscedasticity problem was found. Therefore the study had to conduct its ordinary least square regression estimation and rely on it for inference.

Table 7: Regression Summary Table

	OLS regression result
RCSIZE	-.1368096 (0.363)
RCIND	.0186238 (0.014)
RCGDTY	.024114 (0.090)
RCMEETING	-.2796594 (0.158)
R^2	0.1413
F	3.13 (0.0195)

Source: *Author's Computation (2023)*

Test of Hypotheses and Discussion of Results

From the table 4.2.6 above, it is shown that the model is valid for making inferences, since its P-value is significant at 5% level (Prob> F = 0.0195). Meanwhile the R^2 shows that the independent variables jointly have the capacity to determine 14% of the changes in return on assets, whereas the remaining 86% is contained by the factors outside our model. Therefore we conclude that risk management committee has statistical significant effect on the Return on Assets of oil and gas firms listed on Nigeria exchange group.

Those individual variables react to return on assets as explained below;

H_{O1}: Risk management committee size has no significant influence on return on assets of oil and gas sector in Nigeria

Risk management committee size (RCSIZE) has regression coefficient of -0.136 and P-value of 0.363, which shows that risk committee size has inverse relationship with return on assets of firms. More so, the probability indicates that risk committee size is not significant in determining the quality return on assets of the firms under study. The result is pointing to the fact that the more the number of risk committee members increase, the more the companies would lose control of the profitability that enabled them maximize their shareholders wealth. The study here from concludes that risk management committee size has negative and no significant effect on return on assets of oil and gas sector in Nigeria.

H_{O2}: Risk management committee meeting has no significant influence on return on assets of oil and gas sector in Nigeria

Risk management committee meetings (RCMEETINGS) has coefficient of -0.0279 and probability value of 0.158. The result shows that frequency of risk management committee meetings has the tendency to retard the efficient yield on return on assets. In which case, an increase in risk management committee meeting by one unit would lead to reduction in return on assets by 0.02 units. However, the probability score of 0.158 is far higher than critical value of 5%, meaning that risk management committee meetings is not significant to determining the return on assets of the firms within oil and gas sector. Hence the study failed to reject null hypothesis and uphold that risk management committee has positive and no significant effect on the return on assets of oil and gas firms on the Nigeria exchange limited.

H_{O3}: Risk management committee gender diversity does not have significant influence on return on assets of oil and gas sector in Nigeria.

Risk management committee gender diversity (RCGDTY) has positive impact on firm performance and commands statistical significant influence on return on assets measurement of oil and gas at 10% level. Although the significant level is weak but it shows that the female membership level of the risk committee is paramount to determining the return on assets possibility of the firms within oil and gas sector.

This indices that was shown by the result as in table 4.2.6 above has regression coefficient as 0.024 while the statistics is (0.09). The result expresses that engaging more female on risk committee members by one unit would aid the growth of efficient return on assets management by 0.024 if other variables are held constant. The implication is that more female members of the risk committee should be appointed to the committee to help maintain adequate return on assets for the firms within oil and gas sector.

H_{O4}: Risk management committee independence has no significant influence on return on assets of oil and gas sector in Nigeria.

The independence of risk management committee as shown in that table has regression coefficient of 0.0186 which means that risk committee independence has positive effect on the return on assets of the firms under study. Thereby presents the assumption that one unit increase in the number of non-executive directors appointed to the risk committee would cause 0.0186 increases on the profitability position of the oil and gas firms. By this finding it became clearer that independent committee members opt for higher return on assets that would give the firms opportunity of maximizing the shareholders wealth. However, the P-value of 0.014 signifies that risk management committee independence is statistically significant in determining return on assets of the firms listed under oil and gas sector of Nigerian exchange limited. Hence, the study concludes by affirming the alternate hypothesis that postulates that risk committee independence has positive and statistical significant effect on the return on assets of oil and gas firms listed on Nigeria exchange limited.

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

Summary of Findings

The study findings from the results interpreted were summarised as follows;

i. Risk committee size has inverse and no significant effect on the return on assets of oil and gas firms listed on the Nigerian exchange limited.

ii. Risk committee meeting has negative and no significant effect on the return on assets of oil and gas firms listed on the Nigerian exchange limited.

iii. Risk committee gender diversity has positive and weak significant effect on the return on assets of oil and gas firms listed on the Nigerian exchange limited at 10% level.

iv. Risk committee independence has positive and statistical significant effect on the return on assets of oil and gas firms at 1% level.

Conclusion

The study was conducted to ascertain the impact of risk management committee attributes on the return on assets of firms listed on oil and gas sector of Nigeria exchange limited. From the background knowledge we understood that maintain the sustainability of the firm can be attained when sufficient profit are made by the firms thereby increasing the shareholders wealth, servicing the debts of the creditors as at when due and responding to socio and environmental needs of other stakeholders. Hence, the study applied risk management committee components that include risk committee size, risk committee independence, risk committee meeting and risk committee gender diversity as the drivers for solving the problem of the firm's profitability which was measured with return on assets of the oil and gas firms sampled. Secondary data were extracted from annual reports of the firms under oil and gas for the periods of ten years. With the application of ordinary least square regression analysis and the empirical results there from, the study concluded that risk committee independence is a very powerful attribute risk management committee that must not be despised in efforts to increase return on assets of oil and gas firm. Additionally the need for women inclusion in risk committee is not ruled out since it has a weak influence on return on assets decisions of the oil and gas firms studied.

Recommendations

The study made the following recommendations sequel to the findings made as presented below;

i. The firms within the oil and gas sector are advised to use more number of members in the risk committee since more member poll ideas to revamp the profitability position of the firm.

ii. The firms are encouraged to have more meetings for at least quarterly since its noticed to have increased cross breeding of ideas that assist in such decisions that promote greater financial performance standing.

iii. Oil and gas firms are encouraged to consider increasing female members to be appointed to the risk management committee above their average of 40% since they target on what can increase accounting profit.

iv. The firms should increase the proportion of independent risk committee members above the average of 42% since they oblige management to exploit opportunities for greater profit performance.

Implications of the Findings

The study has successfully investigated the effect of risk management committee on the return on assets of oil and gas firms listed on the Nigerian exchange limited and made its findings. Obviously, the findings changed the narratives and gave a new line of policy and recommendations for greater profitability emanating from efficient combination of the attributes of the risk management committee. Evidently firms should ensure that the non-executive members of their risk management committee is raised above 42% of the total members, as well as raise female members somewhat above 40% to obtain the needed edge for driving efficient return on assets for sustainability sake.

Suggestion for Further Study

Since this study has successfully completed its investigation on the impact of risk committee on return on assets of oil and gas firms, which is only a sector out of the eleven sectors of the Nigeria exchange limited, the study there from suggest other interested scholars to carry out such study on other sectors of the economy to know if the result would be the same. The need for this study would not be over emphasized since the return on assets decision is a direct decision that determines the going concern possibility of the sector.

References

Abdullah, A & Ismail, K.N. (2015).Hedging activities information and risk management committee effectiveness: Malaysian evidence. *Australian Journal of Basic and Applied Sciences*, 9(37), 211 – 219.

Ahmed, H.A., Abdullahi, B.A., Mohamed, I.M., & Umar, A.M. (2018). The effect of risk management committee attributes and board financial knowledge on the financial performance of listed banks in Nigeria. *American International Journal of Business Management, 1*(5), 7 – 13.

Choi, I. (2013). When do companies need a board-level risk management committee? *Private Sector Opinion; no 31. International Finance Corporation, Washington, DC @ World Bank*. http://hdl.handle.net/10986/17018.

Chou, T.K., & Buchdadi, A.D. (2017). Independent board, audit committee, risk committee, the meeting attendance level and its impact on the performance: A study of listed banks in Indonesia. *International Journal of Business Administration, 8*(3), 24-36.

Clark, C., De Martinis, M., & Krambia-Kapardis, M. (2007). Audit quality attributes of European Union supreme audit institutions. *European Business Review, 19*(1), 40-71.

Dionne, G., & Triki, T. (2005). Risk management and corporate governance: The importance of independence and financial knowledge for the board and the audit committee. 1-79. Doi:10.2139/ssrn.730743

Elamer, A.A., & Benyazid, I. (2018). The impact of risk committee on financial performance of UK financial institutions. *International Journal of Accounting and Finance, Forthcoming,* 1–30.

Gordon, L.A., Loeb, M.P., & Tseng, C.Y. (2009). Enterprise risk management and firm performance: A contingency perspective. *Journal of Account, Public Policy*, 28 (2009), 301 – 327.

Husaini, & Saiful. (2017). Enterprise risk management, corporate governance and firm value: Empirical evidence from Indonesian public listed companies. *International Journal of Advances in Management and Economics*, 6 (6), 16 - 23.

Ibrahim, M.F., Okika, N.P., Yunusa, I., & Janada, A. (2020). Risk management committee size, independence, expertise and financial performance of listed insurance firms in Nigeria. I*nternational Journal of Research and Innovation in Social Science, 4* (5), 313 – 320.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.

Kakanda, M.M., Salim, B., & Chandren, S.A. (2017). Risk management committee characteristics and market performance: Empirical evidence from listed financial service firms in Nigeria. Proceedings of 94th IASTEM International Conference, Kuala Lumpur, Malaysia.

Odubuasi, A.C., Ofor, N.T., & Ilechukwu, F.U. (2022). Enterprise risk management, risk committee, and earnings capacity of African banks: A comparative approach. *Modern Economy, 13*(01), 51-68. DOI:10.4236/me2022.131004.

Odubuasi, A.C., Dr. Ofor, N.S., & Dr. Okoye P.V. (2020). Risk management committee attributes and financial performance: Empirical evidence from listed Nigerian banks. *Journal of Accounting, Business and Social Sciences (JABSS), 3*(3), 106 – 115.

Odubuasi, A. C., Ofor, N. T., & Ugbah, A. (2022). Risk committee effectiveness and financial performance indicator of quoted firms in selected African countries. *Journal of Financial Risk Management, 11*, 634-647. https://doi.org/10.4236/jfrm.2022.113030.

Onder, S., & Ergin, H. (2012). Determiners of enterprise risk management applications in Turkey: An empirical study with logistic regression model on the companies included in ISE (Istanbul Stock Exchange). *Business and Economic Horizons, 7*(1), 19 – 26.

Pearce, J.A., & Zahra, S.A. (1992). Board composition from a strategic contingency perspective. *Journal of Management Studies, 29*(4), 411–438.

Quon, T.K., Zeghal, D., & Maingot, M. (2012). Enterprise risk management and firm performance. *Procedia-Social and Behavioral Science, 62*(2012), 263 – 267.

Ramlee, R., & Ahmad, N. (2015). Panel data analysis on the effect of establishing the enterprise risk management on firms' performances. Proceedings of 4th European Business Research Conference 9-10 April, Imperial College, London, UK.

Walker, D. (2009). A review of corporate governance in UK banks and other financial industry entities Final recommendations. Retrieved from: http://webarchive.nationalarchives.gov.uk

Zemzem, A., & Kacem, O. (2014). Risk management, board characteristics and performance in the Tunisian lending institutions. *International Journal of Finance & Banking Studies, 3*(1), 186 – 200.

Zungu, S., Sibanda, M., & Rajaram, R. (2018). The effect of the enterprise risk management on firm value: Evidence from the South African mining companies. https://www.researchgate.net/publicatio n/328860675. 1-20