

EFFECT OF BOARD RISK COMMITTEE ATTRIBUTES ON THE FINANCIAL PERFORMANCE OF NIGERIAN INSURANCE COMPANIES

^a Abidemi Soladoye, ^b Taiwo Adewale Muritala, ^cHauwa Lamino Abubakar

ABSTRACT

Purpose: Given the importance of insurance companies to the national economy and the fact that sound financial performance is essential for them to play their stated roles, it is therefore useful to examine the effect of risk committee attributes on the financial performance of insurance companies in Nigeria from 2016 to 2022.

Theoretical reference: Agency theory is incorporated in this study because ERM places significant responsibility on the board of directors and its delegates such as risk committees, thereby reducing agency costs. The theory underscores the need to promote sustainable growth and corporate governance.

Method: The sample was however limited to the 20 companies that consistently published annual reports for the 7-year study period spanning 2016 to 2022. Using the expo facto research design and the census sampling technique, the study made use of descriptive and inferential statistical techniques, while multiple regression (pooled, fixed effects and random effects models) was used to determine the significance of the effect of risk committee size, independence, and diligence (which are the independent variables), and firm size (the control variable) on loss ratio, (the dependent variable)

Results and Conclusion: The multiple regression analysis showed a negative but statistically insignificant relationship between risk committee size and financial performance measured as loss ratio. Risk committee independence and risk committee diligence on the other hand were positively related to loss ratio although the results were also statistically insignificant. However, the results showed a positive and statistically significant relationship between firm size and loss ratio. Thus, the study concludes that the risk committee attributes, size, independence and diligence do not have a significant effect on loss ratio.

Implications of research: The practical implication of these findings is that insurance companies need to critically evaluate the structure and workings of their board risk committees to determine which attributes best contribute to their risk management and financial goals. However, given that none of the risk committee predictor variables showed a significant effect on loss ratio, there is a need to recommend a minimum committee size of five and initiatives to improve deliberations at meetings.

Originality/Value: While a plethora of studies have been carried out to examine the effect of the characteristics, structure, or attributes of a risk committee on a company's financial

^aPh.D Student in Financial Management, Department of Business Administration, Nile University of Nigeria, FCT, Abuja, Nigeria. E-mail: bidemisoladoye@gmail.com Orcid: <https://orcid.org/0009-0007-8867-0760>

^b Ph.D. in Accounting and Finance, Department of Business Administration, Nile University of Nigeria, FCT, Abuja, Nigeria. E-mail: muritala.adewale@nileuniversity.edu.ng Orcid: <https://orcid.org/0000-0002-9946-0159>

^c Ph.D. in Business Administration, Department of Business Administration, Nile University of Nigeria, FCT, Abuja, Nigeria. E-mail: hauwa.lamino@nileuniversity.edu.ng Orcid: <https://orcid.org/0000-0003-1297-6628>



performance, the vast majority of them have been done on either banks specifically, or financial institutions in general. Only a few of the studies have specifically considered insurance companies. Fewer yet have studied the entire population of insurance companies with most preferring to limit their studies to listed insurance companies. Moreover, none of these studies has measured financial performance from the standpoint of loss ratio which is a measure of the insurance company's capacity to pay claims. This study thus fills a gap in the literature by not only addressing this all-important function of insurance but also contributing to the relative dearth of studies that use the insurance industry as a domain.

Keywords: risk committee attributes, financial performance, loss ratio, insurance companies, Nigeria.

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EFEITO DOS ATRIBUTOS DO COMITÊ DE RISCO DO CONSELHO SOBRE O DESEMPENHO FINANCEIRO DAS COMPANHIAS DE SEGUROS NIGERIANAS

RESUMO

Objetivo: Dada a importância das companhias de seguros para a economia nacional e o fato de que um bom desempenho financeiro é essencial para que desempenhem os seus papéis declarados, é, por conseguinte, útil examinar o efeito dos atributos do comitê de risco no desempenho financeiro das companhias de seguros na Nigéria entre 2016 e 2022.

Referência teórica: A teoria da agência é incorporada neste estudo porque o ERM coloca uma responsabilidade significativa no conselho de administração e seus delegados, como comitês de risco, reduzindo assim os custos da agência. A teoria ressalta a necessidade de promover o crescimento sustentável e o controle corporativo.

Método: A amostra foi, no entanto, limitada às 20 empresas que publicaram sistematicamente relatórios anuais para o período de estudo de 7 anos, de 2016 a 2022. Usando o design de pesquisa expo fato e a técnica de amostragem de censo, o estudo fez uso de técnicas estatísticas descritivas e inferenciais, enquanto a regressão múltipla (agrupados, efeitos fixos e modelos de efeitos aleatórios) foi usada para determinar a significância do efeito do tamanho do comitê de risco, independência e diligência (que são as variáveis independentes), e tamanho firme (a variável de controle) sobre o índice de perda, (a variável dependente)

Resultados e Conclusão: A análise de regressão múltipla mostrou uma relação negativa, mas estatisticamente insignificante, entre a dimensão do comitê de risco e o desempenho financeiro medido como razão de perdas. A independência do comitê de risco e a diligência do comitê de risco, por outro lado, estiveram relacionadas positivamente com o rácio de perdas, embora os resultados também fossem estatisticamente insignificantes. No entanto, os resultados mostraram uma relação positiva e estatisticamente significativa entre tamanho da empresa e relação de perda. Assim, o estudo conclui que os atributos, a dimensão, a independência e a diligência do comitê de risco não têm um efeito significativo no rácio de perdas.

Implicações da pesquisa: A implicação prática dessas descobertas é que as companhias de seguros precisam avaliar criticamente a estrutura e o funcionamento de seus comitês de risco do conselho para determinar quais atributos contribuem melhor para suas metas financeiras e de gerenciamento de risco. No entanto, dado que nenhuma das variáveis preditoras do comitê de risco mostrou um efeito significativo no rácio de perdas, é necessário recomendar um tamanho mínimo de cinco comitês e iniciativas para melhorar as deliberações nas reuniões.



Originalidade/valor: Embora tenham sido realizados inúmeros estudos para examinar o efeito das características, estrutura ou atributos de um comitê de risco no desempenho financeiro de uma empresa, a grande maioria deles foi realizada em bancos especificamente ou em instituições financeiras em geral. Apenas alguns estudos consideraram especificamente as companhias de seguros. Poucos ainda estudaram toda a população de companhias de seguros, com a maioria preferindo limitar os seus estudos a companhias de seguros cotadas. Além disso, nenhum destes estudos mediu o desempenho financeiro do ponto de vista do rácio de perdas, que é uma medida da capacidade da companhia de seguros para pagar indenizações. Este estudo, portanto, preenche uma lacuna na literatura, não só abordando esta função de seguro de toda a importância, mas também contribuindo para a relativa escassez de estudos que usam o setor de seguros como um domínio.

Palavras-chave: atributos do comitê de risco, desempenho financeiro, relação de perda, companhias de seguros, Nigéria.

EFFECTO DE LOS ATRIBUTOS DEL COMITÉ DE RIESGOS DE LA JUNTA SOBRE EL RENDIMIENTO FINANCIERO DE LAS COMPAÑÍAS DE SEGUROS NIGERIANAS

RESUMEN

Finalidad: Dada la importancia de las compañías de seguros para la economía nacional y el hecho de que un rendimiento financiero sólido es esencial para que desempeñen sus funciones declaradas, es útil examinar el efecto de los atributos del comité de riesgos en el rendimiento financiero de las compañías de seguros en Nigeria de 2016 a 2022.

Referencia teórica: La teoría de la agencia se incorpora en este estudio porque ERM asigna una responsabilidad significativa a la junta directiva y sus delegados, como los comités de riesgos, reduciendo así los costos de la agencia. La teoría subraya la necesidad de promover el crecimiento sostenible y la gobernanza corporativa.

Método: Sin embargo, la muestra se limitó a las 20 empresas que publicaron sistemáticamente los informes anuales correspondientes al período de estudio de siete años comprendido entre 2016 y 2022. Utilizando el diseño de investigación *ex post facto* y la técnica de muestreo censal, el estudio hizo uso de técnicas estadísticas descriptivas e inferenciales, mientras que la regresión múltiple (modelos de efectos fijos y aleatorios agrupados) se utilizó para determinar la importancia del efecto del tamaño del comité de riesgo, la independencia y la diligencia (que son las variables independientes) y el tamaño de la empresa (la variable de control) en la relación de pérdida (la variable dependiente)

Resultados y conclusión: El análisis de regresión múltiple mostró una relación negativa pero estadísticamente insignificante entre el tamaño del comité de riesgo y el desempeño financiero medido como ratio de pérdida. Por otro lado, la independencia del comité de riesgos y la diligencia del comité de riesgos se relacionaron positivamente con el ratio de pérdidas, aunque los resultados también fueron estadísticamente insignificantes. Sin embargo, los resultados mostraron una relación positiva y estadísticamente significativa entre el tamaño de la empresa y la razón de pérdida. Por lo tanto, el estudio concluye que los atributos del comité de riesgo, el tamaño, la independencia y la diligencia no tienen un efecto significativo en el ratio de pérdidas.

Implicaciones de la investigación: La implicación práctica de estos hallazgos es que las compañías de seguros necesitan evaluar críticamente la estructura y el funcionamiento de sus comités de riesgos de la junta para determinar qué atributos contribuyen mejor a su gestión de riesgos y objetivos financieros. Sin embargo, dado que ninguna de las variables predictoras del comité de riesgos mostró un efecto significativo en la razón de pérdidas, es necesario recomendar un tamaño mínimo de comité de cinco e iniciativas para mejorar las deliberaciones en las reuniones.



Originalidad/Valor: Si bien se han llevado a cabo una plétora de estudios para examinar el efecto de las características, la estructura o los atributos de un comité de riesgo en el rendimiento financiero de una empresa, la gran mayoría de ellos se han realizado en bancos específicamente o instituciones financieras en general. Solo unos pocos de los estudios han considerado específicamente a las compañías de seguros. Menos han estudiado aún a toda la población de compañías de seguros, y la mayoría prefiere limitar sus estudios a las compañías de seguros que cotizan en bolsa. Además, ninguno de estos estudios ha medido el rendimiento financiero desde el punto de vista del coeficiente de pérdidas, que es una medida de la capacidad de la compañía de seguros para pagar las reclamaciones. Este estudio, por lo tanto, llena un vacío en la literatura al abordar no solo esta función tan importante de los seguros, sino también contribuir a la escasez relativa de estudios que utilizan la industria de seguros como un dominio.

Palabras clave: atributos del comité de riesgo, rendimiento financiero, ratio de pérdidas, compañías de seguros, Nigeria.

1 INTRODUCTION

The inevitability of risk in business makes risk management compulsory for businesses around the globe. However, the ever-increasing complexity of risk in the business environment requires an equally dynamic and robust risk management response for businesses to stand a chance of meeting their corporate financial goals. While this is true for businesses across all industries, it is particularly important for the Nigerian insurance industry because of the important role it plays in the growth and development of the economy. Primarily, insurance companies offer financial protection to businesses first by allowing them to transfer all manner of risks cutting across accidents, natural disasters, illnesses, or even death, and secondly by providing compensation when losses do occur, thus enabling seamless recovery, according to Wang, (as cited in Olarewaju & Msomi, 2021). In addition, as part of their risk assessment and protection activities, insurance companies promote safety and risk containment practices sometimes at the policy level or simply by compelling companies to look more closely at the risks that confront them. Equally important to the economy is the capital accumulation role of insurance companies; the premiums they collect from policyholders are invested in various financial instruments and the capital thus accumulated is available for investment in infrastructure and various other economic activities that foster economic growth (Ifediora et al., 2022)

There seems to be a consensus in the literature that effective risk management is the responsibility of the board of directors, and the organ through which the board exercises its risk management function is the Risk Committee. This much is established



in the risk management framework of the Committee of the Sponsoring Organisations of the Treadway Commission (COSO), as well as by the National Insurance Commission (NAICOM), the Nigerian insurance regulator, in its October 2022 prudential guidelines to insurance companies

Given the importance of insurance companies to the national economy and the fact that sound financial performance is essential for them to play their stated roles, it is useful to examine the relationship between risk committees and financial performance in the insurance industry. Beyond the presence or otherwise of risk committees, the ongoing conversation in academic literature seems to have turned towards the characteristics of the committees, particularly in heavily regulated industries where the presence of committees tends to be superficial - a matter of mere regulatory compliance and thus the make-up of the committee would be a better indicator of commitment to board-level risk management or implementation of enterprise risk management (Grammenidis & Hiebl, 2021). Typical risk committee characteristics studied include committee size, that is, the number of persons in a committee, and professional expertise which refers to the relevance of their training and work experience in finance and risk management. Others are gender balance, which considers the inclusion of female members, as well as diligence which measures the frequency and or adequacy of meetings (Odubuasi et al., 2022), (Yusuf et al., 2023), (Saka et al., 2022). Others have introduced more novel characteristics such as overlap of members where risk committee members are also members of other board committees, and political influence of members (Darmawan et al., 2021)

The results of studies that sought to establish the effect of risk committee characteristics on financial performance, which is often measured in literature by profitability, capital adequacy, liquidity, leverage and solvency ratios such as return on asset (ROA), return on equity (ROE), quick ratio, Tobin's Q, etc as seen in Olarewaju & Msomi, (2021), Odubuasi et al., (2022), and others, have been varied. For example, while a study by Egberi, (2022), concluded that risk committees had no significant effect on firm value, Yusuf et al., (2023) found that committee size had a significant positive effect on financial performance. Yet another study by Odubuasi et al., (2022) found that the effect of size was not significant, though positive.

While there is a decent quantum of research papers that studied how risk committees influence financial performance, the ideal number and mix of committee



characteristics to be included in a study remains a point of divergence. This situation, and the relative dearth of studies on the Nigerian insurance industry, motivates this research which is done with a mix of risk committee characteristics and a financial performance metric that are considered more suited to Nigerian insurance companies

This study therefore examines the effect of three risk committee characteristics – size, independence, and diligence – on the financial performance of Nigerian insurance companies measured by their loss ratios, which measure their capacity to continue to pay claims. Boards and executive management teams of insurance companies will be interested in this study because it will help point them in the direction of how best to compose their risk committees. The regulator, NAICOM, will also find the study useful as it endeavours to formulate policies and provide guidelines that can protect the industry. This section of the study is followed by the literature review, methodology, results, and discussion of the findings, conclusion, and recommendations

2 LITERATURE REVIEW

This section comprises the conceptual review, the theoretical review, and the empirical review. The risk committee is an independent committee of the board of directors of a corporation that functions at the instance of the board to oversee the company's risk management framework (Qulyubi et al., 2023). NAICOM, in its 2022 guidelines mandates every insurance company to have a risk framework and places responsibility for its adequacy and management on the board of directors (NAICOM, 2022). Working through its enterprise risk committee as NAICOM refers to it, the board of directors is required to develop its risk strategy, continuously evaluate and monitor the company's risk appetite and culture, and oversee its risk management processes

The size of the risk committee refers to the number of persons who are committee members. The insurance commission does not specify a minimum number of members, but being an organ of the board, every member of the committees is a director of the company and the committee size would therefore largely be dependent on the size of the board. Size is also considered in some quarters as being indicative of the company's commitment to risk management considering that more resources are needed for a larger committee. There has been much debate in the literature about the relevance of size in board risk committee effectiveness. While some studies found that size has a positive



significant effect on financial performance (Darmawan et al., 2021), others, such as Fali et al., (2020), argue that size is only relevant in the context of other qualifiers such as financial expertise, gender and independence

The Cambridge Dictionary defines independence as the state of being able to do things or make decisions without help or influence from others. Independence is a very important attribute for persons saddled with oversight responsibilities such as board risk committee members. According to the CFA Institute, a director can be said to be independent when they do not have any material interests in the company and are therefore able to make objective decisions that are in the best interest of the company. In practical terms, this means such directors do not hold a significant number of shares in the company and they are not vendors to the company. It also means that they are not members of the company's executive team. Independent directors can stand up to owners and company insiders who tend to exercise disproportionate levels of control, and in a way that is often not in the shareholders' best interest (CFA Institute, 2022). Empirical studies have shown that independence can affect financial performance positively, negatively, or in some cases no effect at all. Fali et al., (2020), for instance, found that board committee independence does reduce risk-taking and this could affect financial performance both positively and negatively

Section 87 of the Companies and Allied Matters Act (2020) stipulates that directors exercise due diligence in the exercise of their duties. While diligence generally means "steady, earnest, energetic work" (Merriam-Webster Dictionary), diligence in the context of corporate governance has been measured differently by various authors. One common measure of diligence is the attendance and frequency of meetings, because as the truism goes, "if meetings are not being held, then issues are not being discussed and resolved". Moreover, the rigour that goes with attendance of meetings can be deemed as diligence. NAICOM does not stipulate the frequency of committee meetings, but two to three times a year seems to be the industry average. The commission, however, requires that minutes of committee meetings be maintained and report of directors' attendance be published in the annual reports. Again, empirical studies are not in agreement as regards the effect of meetings on financial performance. Darmawan et al., (2021), for example, found a positive but insignificant relationship between frequency of meetings and firm financial performance. Odubuasi et al., (2022), on the other hand, observed a negative relationship but raised concerns about the quality of the meetings



The effect of firm size on financial performance has frequently been studied by researchers, with many of them opting to use firm size as a control variable. Firm size refers to the scale on which a company operates and can be measured in several ways such as total assets, turnover, market capitalization, market share, number of employees, and so on. This study makes use of total assets which is a balance sheet item that comprises current assets, net fixed assets, and other non-current assets (including intangible assets, deferred charges, investments, and advances). Total assets is considered an ideal control variable for this study because, as pointed out by Dang et al., (2018), it is statistically robust in sign and significance. In addition, whilst bigger firms by total assets are better able to diversify and earn bigger profits with their superior market power as observed by Otero-González et al., (2020), they are also more likely to implement enterprise risk management which mandates the set-up of robust risk committees (Khan et al., 2021), In any case, given the N8b minimum capital requirement for insurance companies in Nigerian, firm can be considered an important consideration for firm performance. While studies by Phan et al., (2020), and others showed a negative relationship between firm size and financial performance, Odubuasi et al., (2022), Otero-González et al., (2020), and others found a significant positive relationship between firm size and financial performance.

Financial performance refers to how well an organization is doing relative to its financial goals and objectives over a given period. The Corporate Finance Institute describes financial performance as a complete evaluation of the standing of a company in categories such as assets, liabilities, equity, expenses, revenue, and overall profitability (CFA Institute, 2023). Financial performance metrics such as return on assets (ROA), return on equity (ROE), liquidity ratios, Tobin's Q, and revenues have received a lot of attention from researchers over time. The need for researchers to move away from over-flogged metrics such as ROA and ROE in assessing financial success and embrace more recent trends was made Alabdullah (as cited in Almashhadani & Almashhadani, 2023), is germane and is particularly important for the insurance industry where financial performance is not only about maximizing shareholders' wealth but is also a matter of public trust (Chartered Insurance Institute). This informs the choice of the loss ratio as a measure of financial performance for this study. The loss ratio as used in the insurance industry represents the ratio of losses to premiums earned where "losses" include paid insurance claims and adjustment expenses (Hayes, 2020). The Nigeria Insurers

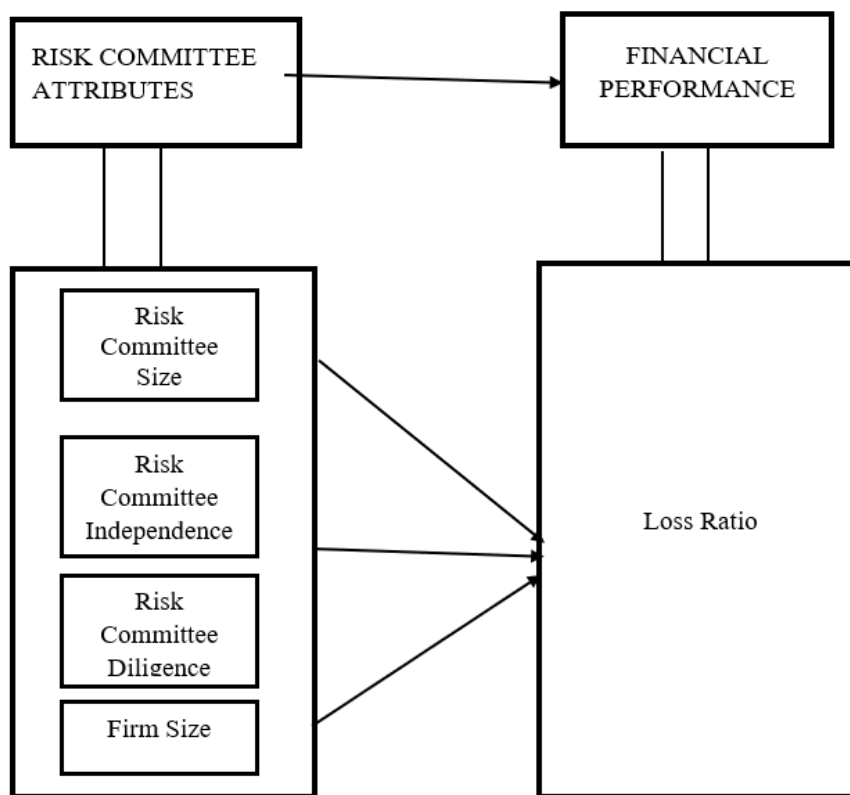


Association describes loss ratio as the ratio of loss claims paid to gross premiums written over the same period. The ratio indicates whether or not insurance companies are collecting more premiums than claims paid or if they are not collecting enough premiums to cover claims and high loss ratios are indicative of financial stress. In a study of the determinants of profitability in the insurance industry, Shiferaw, and Gujra, (2022), observed a negative and significant impact of loss ratio on profits. Like several other studies, Malik et al., (2020), observed that strong committee characteristics as a part of ERM supports improved financial performance, measured by Tobin's Q. The conceptual framework connection between risk committee characteristics and financial performance is shown in the figure below (Fig. 1).

3 CONCEPTUAL FRAMEWORK

Figure 1

Conceptual Framework showing the inter-relationship between Committee attributes and the financial performance



Author's Compilation, (2024)



4 THEORETICAL REVIEW

Academic literature on corporate governance identify the key role of the board of directors and their committees in addressing the agency problem as set out in the agency theory. Originally put forward as the agency theory of corporate governance by Alchian and Demsetz (1972) and Jensen and Meckling (1976), agency theory is an economic theory that focuses on the relationships between self-interested individuals in a firm. It explains the principal-agent relationship, where one party (the principal) delegates decision-making authority to another (the agent), who is responsible for maximizing returns on the principal's investment in return for an agreed remuneration. The theory addresses issues such as differences in goals and risk aversion between principals and agents. And despite criticisms against the theory for its exclusive focus on the principal and agent, ignoring other stakeholders, agency theory has been useful in understanding relationships within organizations, corporate governance phenomena, executive compensation alignment, board monitoring, and top executive control. (Payne & Petrenko, 2019). Stakeholder theory can be considered a reaction to the agency theory and is a concept that defines stakeholders as those who can affect or are affected by an organization's purpose. Stakeholder theory has its origins in strategic management and focuses on the leadership and management of profit-driven firms (Freeman et al., 2021). It argues that sustainable relationships with stakeholders are essential for gaining competitive advantage and firm performance (Loskutova & Khnykina, 2020). However, critics argue that the divergent interests of stakeholders cannot be satisfied equitably, creating distractions from the core corporate objective of wealth creation for shareholders.

5 THORETICAL FRAMEWORK

This study examines the impact of risk committee characteristics on firm financial performance, risk committee being an integral component of the ERM (enterprise risk management) framework prescribed for insurance companies by NAICOM. Agency theory is incorporated in this study because ERM places significant responsibility on the board of directors and its delegates such as risk committees, thereby reducing agency costs. The theory underscores the need to promote sustainable growth and corporate governance.



6 EMPIRICAL REVIEW

Empirical studies on the effect of the board risk committee and its characteristics on firm performance have shown varied results. While some showed a positive relationship, others revealed a negative relationship, and others yet observed no significant relationship at all. For example, González et al. (2020), conducted a study on the impact of Enterprise Risk Management (ERM) on the performance and financial stability of non-financial listed companies. The study used secondary data from annual and management reports of 162 listed Spanish firms from 2012 to 2015. The study made use of the risk committee, chief risk officer, risk map, COSO, and ISO ERM frameworks as proxies for ERM while Tobin's Q, ROA, and ROE were used to measure performance. The results showed that whereas ERM did not affect the performance of the firms, the presence of a risk committee had a significant positive effect. Similarly, in a study where, the Varimax method for Factor Analysis, and Kaiser-Meyer-Olkin (KMO) were employed as the estimation techniques to examine the impact of Enterprise Risk Management (ERM) on firm performance in the United Kingdom using the establishment of a board-level risk committee (BLRC) as a proxy, Muhammad, et al., (2020) concluded that while the mere formation of a BLRC is not a panacea for ERM oversight; the existence of a structurally strong BLRC is crucial for effective ERM governance. The study was conducted under the COSO framework, and the variables considered include ERM Index, Tobin Q, BLRC size, BLRC independence, BLRC financial experts, BLRC meetings, BLRC female members, and BLRC overlapping. A similar study by Malik et al., (2020), on FTSE350-listed firms produced nearly identical findings: a strong BLRC structure, rather than mere formation, is required to get results. Back in Nigeria, Frank and Ukpon, (2023), in their study, examined the effect of audit and risk management committees on the financial performance of healthcare firms in Nigeria making use of the ex post facto research design. Data were collected from a sample of healthcare companies on the Nigerian Exchange Group and regression analysis was carried out on the data collected using E-View 9.0. The study revealed that risk management committees significantly affected the return on equity of healthcare companies in Nigeria.

In contrast, findings from a study by Egberi, (2022), showed that the risk monitoring committee does not affect firm value, particularly for listed Nigerian oil and gas firms. The study made use of a static panel with the application of Fixed and Random



effects to examine the risk monitoring committee and firm value of listed oil and gas companies in Nigeria. The COSO Enterprise Risk Management (ERM) framework initiated by the COSO Treadway Commission was employed as the framework guiding the study. Tobin Q, Risk Committee size, Price to earnings per share, Earnings Yield, and Risk Committee presence are the variables considered for the study.

Results from studies that measured specific characteristics of risk committees on firm performance were just as varied. However, more of the studies seem to suggest that committee independence is the most important characteristic. For instance, in a study of the effect of board risk committee composition on risk-taking in Nigerian banks, Yusuf et al., (2023), observed that while committee independence and financial expertise significantly reduced risk-taking, gender diversity had no effect. The study made use of panel data from 12 listed Nigerian banks from the year 2009 to 2020. Committee independence, financial expertise, and gender diversity were the independent variables, while overall risk-taking, measured as a ratio of weighted risk assets to total assets, was the dependent variable. Two control variables were introduced in the study - liquidity and interest rate spread. Still on risk level as an indicator of performance, Jiang & Ji, (2023), tested the effect of the establishment of a risk management committee on bank risk, bank loan performance, and bank profitability with the Dodd–Frank Act of 2010 in the UK as the basis for a quasi-experimental variation on risk management committee establishment that facilitates identification. Using the instrumental variable model based on the difference-in-differences design, the study found that the establishment of a risk committee effectively reduced bank risks. Also, risk committee member independence, more risk committee meetings, and more risk committee members were all instrumental to bank risk reduction. The study also found the committee effect to be more pronounced among asset-diversified banks and that the establishment of a risk committee helps with loan quality improvement and firm profitability

Similarly, Darmawan et al., (2021) who studied the effect of risk committee size, independence, diligence (number of meetings held), overlap of functions, and political influence on ROA and Tobin's Q, found committee independence and size had significant positive relationships while political influence had a significant negative relationship. However, the frequency of meetings, overlap of functions, and gender diversity did not have any significant effect on the performance as shown in the study which made use of panel data from 41 Indonesian companies. Additionally, in a recent comparative study on



the effect of risk committee characteristics on company performance – pre-, and post-COVID-19, Alqatamin et al., (2024), also established a positive and significant relationship between risk management committee independence and ROA. They collected secondary data covering 2017 to 2022 from the annual reports of 89 companies listed on the Aman Stock Exchange in Jordan. The companies included banks, insurance companies, real estate companies, and diversified financial firms.

Odubuasi et al., (2020), measured three committee attributes: size, independence, and gender diversity against ROE. Interestingly, only gender diversity had a significant positive effect on ROE. Both size and independence had no significant effect. The study made use of the *expo facto* research design, collecting data from annual reports of 18 banks listed on the Nigeria Stock Exchange between 2009 and 2018, and panel regression analysis was carried out while the Hausman test was carried out to select the best out of the fixed and random effect models that were interpreted. Murtala and Yahaya, (2023), also used committee size, independence, gender, and meetings as independent variables for their study of 21 banks listed on the Nigeria Stock Exchange while asset quality, measured by NPL ratio was the dependent variable. Unlike several other studies, however, they found a significant negative relationship between committee independence and NPL ratio after running a multiple regression analysis on the data collected.

Also, in a study of the effect of risk committee attributes on the financial performance of Nigerian banks, Fali et al., (2020) measured committee size, independence, and expertise against ROA using firm size and leverage as control variables and a sample size of 24 insurance companies listed on the Nigerian Stock Exchange as of December 2018. They used regression analysis and the ordinary least squares method to analyse the data and the results are as follows: Size had a negative and insignificant effect on financial performance, independence had no significant effect, and likewise expertise. Yet another contrasting result of committee independence on firm performance was observed by Oluwagbade et al., (2023), who studied the effect of risk committee size, independence, diligence/meetings, and gender diversity on ROA and Tobin's Q using data collected from 34 financial institutions listed on the Nigerian Stock Exchange as of December 2021. Thus, secondary panel data was used for the study and the research design was *expo-facto*. Findings revealed a negative relationship for size while meetings had a positive relationship. Independence and gender diversity, on the other hand, showed no significant relationship with ROA and Tobin's Q



7 LITERATURE GAP

While a plethora of studies have been carried out to examine the effect of the characteristics, structure, or attributes of a risk committee on a company's financial performance, the vast majority of them have been done on either banks specifically (Yusuf et al., 2023), (Murtala & Yahaya, 2023), (Jiang & Ji, 2023), or financial institutions in general (Oluwagbade et al., 2023), (Alqatamin et al., 2024). Only a few of the studies have specifically considered insurance companies. Fewer yet have studied the entire population of insurance companies with most preferring to limit their studies to listed insurance companies (Fali et al., 2020). Moreover, none of these studies has measured financial performance from the standpoint of loss ratio which is a measure of the insurance company's capacity to pay claims. This study thus fills a gap in the literature by not only addressing this all-important function of insurance but also contributing to the relative dearth of studies that use the insurance industry as domain

8 METHODOLOGY

This study used the *expo facto* research design, using historical data, sourced from annual financial reports and periodic reports from the Nigeria Insurance Association. The population of the study is all 47 insurance companies operating in Nigeria as of December 31, 2022, but in consideration of the relatively small size of the population, the census sampling method, a form of purposive sampling, was used to select a sample size. Thus all 20 insurance companies that consecutively published annual reports over the 7-year study period, 2016 to 2022 were selected. Quantitative data extracted from the 20 companies over the study period formed the cross-sectional panel data used. The panel data was analysed using descriptive and inferential statistical techniques, while multiple regression was used to determine the significance of the effect of risk committee size, independence, and diligence (which are the independent variables), and firm size (the control variable) on loss ratio, (the dependent variable)

The model for this study is adapted from Odubuasi et al., (2020) and is used to examine how board risk committee characteristics affect financial performance. There was a need to adapt because of the differences in the variables studied. For instance, while the adapted model studied the effect of risk committee attributes on return on



equity, this study used loss ratio as the dependent variable. Furthermore, total asset was used as the control variable in place of leverage. The functional model specification is presented below:

$$LR = f(RCS, RCI, RCD, FS) \quad (1)$$

Hence, the regression estimation model is presented thus:

$$LR_{i,t} = \beta_0 + \beta_1RCS_{i,t} + \beta_2RCI_{i,t} + \beta_3RCD_{i,t} + \beta_4FS_{i,t} + \mu_0 \quad (2)$$

Where:

LR = Loss Ratio

RCS = Risk Committee Size

RCI = Risk Committee Independence

RCD = Risk Committee Diligence

FS = Firm Size (Total Assets)

β_1 - β_3 = Beta coefficient that measures the sensitivity of variable X to change in variable Y(LR)

β_0 = constant

μ_0 = error term

Table 1

Operationalization and Description of Research Variables

S/n	Variable	Acronym	Role	Measurement	Source
1	Financial Performance		Dependent		
1a	Loss Ratio	LR	Dependent	The ratio of gross claims to gross premiums	Nigeria Insurance Association, (2022_)
2	Risk Committee Attributes		Independent		
2a	Risk Committee Size	RCS	Independent	Total number of directors and non-directors in the committee	Oluwagbade et al., (2023)
2b	Risk Committee Independence	RCI	Independent	Ratio of Independent directors to RCS	Oluwagbade et al., (2023)
2c	Risk Committee Diligence	RCD	Independent	Frequency of committee meetings	Oluwagbade et al., (2023)
3	Firm Size	FS	Independent		
3a	Total Assets		Control	The sum of current and non-current assets	Nigeria Insurance



					Association, (2022)
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Source: Author's Compilation (2024)

9 DATA PRESENTATION, ANALYSIS & INTERPRETATION

9.1 DATA ANALYSIS

This research study made use of the fixed model of the panel least squares regression method with the aid of the Eviews version 9.0 statistical software. This technique was used to examine the significance of the attributes of the board risk committee namely size, independence, diligence, and firm size on financial performance measured by loss ratio. The regression analysis was however preceded by preliminary estimation tests to detect potential issues or outliers that could affect the results obtained from the analysis

9.2 DESCRIPTIVE STATISTICS RESULTS FOR THE MODEL

The results of the descriptive analysis for the model are shown in Table 1 below. It comprises the mean, standard deviation, skewness, Jarque-Bera, and probability of the dependent variable, loss ratio (LR), and the predictors, risk committee size (RCS), risk committee independence (RCI), and risk committee diligence (RCD) of 20 insurance companies in Nigeria over 7 years, that is, from 2016 to 2022. Firm size, measured by total assets is used as the control variable

Table 2

Descriptive Data

	LR	RCS	RCI	RCD	FS
Mean	0.326714	4.685714	0.735714	3.792857	45.61214
Std. Dev.	0.164564	1.346916	0.801175	0.992754	87.89172
Skewness	1.540118	0.709458	1.099654	-0.683506	3.907551
Kurtosis	6.504785	4.167682	4.004994	3.720451	18.82918
Jarque-Bera	126.9997	19.69801	34.10733	13.92868	1817.893
Probability	0.000000	0.000053	0.000000	0.000945	0.000000
Observations	140	140	140	140	140

Source: Author's Computation (2024)



The summary presented in Table 2 above, reveals that firm size and risk committee size have the highest mean values of 4.685714 and 45.61214 followed by risk committee diligence with 3.792857 and risk committee independence with 0.735714. The loss ratio has the lowest mean of 0.326714. Standard deviation measures the degree of concentration of values around the mean with lower values indicating tighter clustering. Standard deviation values in ascending order are 0.164564, 0.801175, 0.992754, 1.346916, 87,891.72, for loss ratio, risk committee independence, risk committee diligence, risk committee size, and firm size respectively. With standard deviation values all less than 2 except for firm size, it is noted that the values are generally clustered around the mean. Skewness is the measure of the asymmetric character of the distribution. Except for risk committee diligence, all the variables are positively skewed which means that most values in the distribution are on the right side (but left of the mean). However, a skewness value of -0.683506 for risk committee diligence points to a moderately left-skewed distribution with the mean less than the median and most values on the right side of the mean. Kurtosis measures the tailedness and points to how frequently outliers occur in a distribution. Values of kurtosis for all the variables are positive and exceed 2, which means the distribution is more peaked than normal. In consonance with skewness, kurtosis values determine the normality of a distribution. All the variables can be seen to not be normally distributed as confirmed by the significant probability values and the high Jarque Bera statistics which all exceed 3

9.3 CORRELATION ANALYSIS

The correlation matrix in Table 2 below reports the correlations between the variables. Association can be said to be very weak if correlation values are between 0 and 0.2, weak, if between 0.2 and 0.4, moderate between 0.4 and 0.6, strong when between 0.6 and 0.8, very strong between 0.8 and 1, while 1 connotes perfect correlation

Table 3

Correlation Analysis

	LR	RCS	RCI	RCD	FS
LR	1				
RCS	0.182585 p=0.0308	1			
RCI	0.169701	-0.223896	1		



	p=0.0308	p=0.0078			
RCD	-0.068489 p=0.4214	0.284539 p=0.0007	0.114256 p=0.1789	1	
FS	0.415115 p=0.0000	0.278482 p=0.0009	0.321688 p=0.0001	0.088385 P=0.2991	1

Researcher's Compilation: 2024

From the results displayed, it can be observed that there is no strong association between any of the variables. However, there is a moderate positive relationship between the control variable, firm size (total assets) with a correlation value of 0.415115 and a p-value of 0.0000. Also worth pointing out is the negative relationship between risk committee diligence (meetings) and loss ratio, as well as between risk committee size and risk committee independence. But while the former is not statistically significant with a p-value of 0.4214, the latter is statistically significant

10 PRE-TEST ANALYSIS

10.1 UNIT ROOT TEST

Given the tendency for stochastic trends in industry-specific time series data, it was necessary to identify and treat such trends before proceeding to examine the relationship between board risk committee attributes and financial performance of Nigerian insurance companies. This was done by analysing the order of integration based on a series of unit root tests for non-stationarity namely the Levin, Lin, and Chu t and the PP Fisher Chi-square tests. The results of the tests are shown in Table 4 below

Table 4

Result of Unit Root Tests

VARIABLES	LEVEL		FIRST DIFFERENCE		ORDER OF INTEGRATION
	Levin, Lin & Chu t*	PP-Fisher Chi-square tests	Levin, Lin & Chu t*	PP-Fisher Chi-square tests	
LR	-0.63914	23.1644	-11.0289	205.210	1(1)
RCS	-0.09805	39.5336	-3.26394	18.1900	1(1)
RCI	-0.51419	37.8615	-7.48666	34.6056	1(1)
RCD	-2.08505	41.4970	-2.77628	7.75508	1(1)
FS	12.2281	7.38022	-9.00746	68.9105	1(1)

Source: Author's computation (2024)



The rule here is that, the null hypothesis of non-stationarity is rejected at the 5% level of significance. As shown in Table 4, the unit root tests reveal that at a 5% level of significance, none of the variables were stationary at level. However, all the variables, loss ratio (LR), risk committee size (RCS), independence, (RCI), diligence (RCD), and firm size, (FS) were all stationary at first difference (order 1(1)) making the ordinary least squares method suitable for the regression analysis

11 RESULT OF REGRESSION ANALYSIS

The results of the ordinary least squares regression analysis carried out using the pooled, fixed effects and random effects models are presented in table 4 below

Table 5

Results of Static Panel Regression Analysis for LR Model

Variables	Pooled OLS			Fixed Effects Model			Random Effects Model		
	Coef.	Std. Error	P-Value	Coef.	Std. Error	P-Value	Coef.	Std. Error	P-Value
C	0.262409	0.011008	0.0908	0.239384	0.009423	0.5502	0.228032	0.097921	0.0214
RCS	0.018752	0.094493	0.2197	-0.005647	0.098062	0.5577	0.004786	0.011833	0.6865
RCI	0.116518	0.013574	0.0595	0.057662	0.012858	0.1187	0.155401	0.112450	0.1693
RCD	-0.025799	0.000165	0.0001	0.020213	0.000398	0.4038	0.002883	0.016601	0.8624
FS	0.000657	0.072839	0.0004	0.000333	0.090656	0.0094	0.000137	0.000215	0.5268
R-Square	0.202909			0.757723			0.020700		
Adj. R-Square	0.179291			0.709686			-0.008317		
Prob. (F-Stat)	0.000003			0.000000			0.584160		
Durbin Watson	1.006357			1.935819			1.621539		

Source: Author's Computation, (2024)

The results of the regression analysis as shown in Table 5 show marked differences between the three models. While the pooled and fixed methods show statistical significance, the random effects model with a p-value of 0.584160 does not. Similarly, the coefficients and p-values of the variables also differ. Despite the lack of significance from the random effects regression model, a Hausman test is conducted to determine the more suitable model between the random and fixed effects models. The results are presented in table 5 below



12 HAUSMAN’S SPECIFICATION

Results of the Hausman (1978) correlated random effects test is presented in table 6 below.

Table 6

Hausman Test Results

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	19.937061	4	0.0005

Source: Author’s Computation, (2024)

The null hypothesis of the Hausman test is that the random effects model is appropriate while the alternative hypothesis is that the fixed effects model is suitable. The result shows a Chi-sq statistic value of 19.937061 and a p-value of 0.0005, which indicates statistical significance. Thus, at 5% level of significance, (i.e. $p < 0.05$), the null hypothesis is rejected in favour of the alternative which is the fixed effect model

13 INTERPRETATION OF RESULTS

This study explored the effect of risk committee attributes on the financial performance of insurance companies in Nigeria, examining the effect of risk committee size, risk committee independence and risk committee diligence on the loss ratio. Having selected the fixed effects model using the Hausman test, the results are examined and analysed

The explanatory power of the model is examined using the R-squared and the adjusted R-squared values. The R-squared value of 0.757723 means the model explains 75.77% of the variation in the dependent variable, loss ratio (LR). The remaining 24.23% is explained by other factors external to the model. The adjusted R-squared value of 70.97% takes the number of variables in the model into account and adjusts for over-fitting. The p-value of the model’s F-statistic is 0.000000 which means the model is statistically significant. In other words, risk committee attributes along with the control variable, firm size have a significant effect on financial performance measured by loss ratio. The Durbin-watson statistic is a test for checking for auto-correlation in the



residuals of a regression analysis and ranges between 0 and 4. A value of 2, or close to 2 indicates that there is no first-order autocorrelation

The coefficient of risk committee size (RCS) is -0.005647 which points to a negative relationship between RCS and LR. However, this result is not statistically significant at 5% level since p-value is 0.5577. The regression coefficient of risk committee independence (RCI) is 0.057662 which points to a positive relationship with insurance firms' loss ratios but is also not statistically significant at 5% level of confidence since p-value is 0.1187. Similarly, risk committee diligence (RCD) measured by frequency of meetings also has a positive relationship with loss ratio that is not statistically significant with regression coefficient and p-value of 0.020213 and p-value of 0.4038 respectively. However, firm size (FS) has a modest positive relationship with loss ratio that is statistically significant since the p-value is 0.0094. This stands to reason as the total assets deployed by an insurance firm may affect its ability to generate premiums

14 DISCUSSION OF FINDINGS

This study explored the effect of the attributes of board risk management committees on the financial performance of insurance companies in Nigeria. Specifically, it investigated how the size of risk committees, their independence, and their diligence in terms of frequency of meetings affect the loss ratio of insurance companies, loss ratio (LR) being the measure of the adequacy of premiums collected in paying claims. The study revealed that a marginal reduction in the size of risk committees (RCS) results in an increased loss ratio. While the result was not of any statistical significance, it does show that smaller committee sizes may negatively impact financial performance since *larger loss ratios indicate financial stress*. The marginal change in committee size observed shows that there may be an optimum committee size below, or above which they would cease to be efficient. This result is at variance with those of Frank and Ukpon, (2023), and Darmawan et al., (2021), who found that risk committees and risk committee size respectively had a positive effect on financial performance. It however aligns with the result observed by Egberi, (2022), who did not find any relationship between risk committees and firm financial performance



This study also delved into the effect of board risk committee independence (RCS) on loss ratio (LR). The analysis revealed a positive relationship between committee independence and loss ratio. This means that more independent committees were inclined to worsen the adequacy of premiums collected in settling claims made on insurance companies in Nigeria. The result however also did not have any statistical significance and this aligns with the result of the study by Oluwagbade et al., (2023) and Fali et al., (2020), who observed no significant relationship between risk committee independence and financial performance measured by return on assets and Tobin's Q. It was however at variance with findings from Jiang & Ji, (2023), González et al. (2020), Oluwagbade et al., (2023), and others, who observed a significant positive relationship between risk committee independence and financial performance

The effect of risk committee diligence (RCD) measured by the frequency of meetings held on loss ratio was also investigated in this study. The positive relationship between these two variables shows that the frequency of meetings tends to worsen the loss ratio (LR) of Nigerian insurance companies. However, the result was also not statistically significant. This is in contrast to those of Oluwagbade et al., (2023) and Jiang & Ji, (2023), who found that diligence shown by frequency of meetings had a significant positive effect on financial performance. It however aligns with findings by Darmawan et al., (2021) who observed that the frequency of meetings did not have any significant effect on financial performance

15 POST ESTIMATION TEST

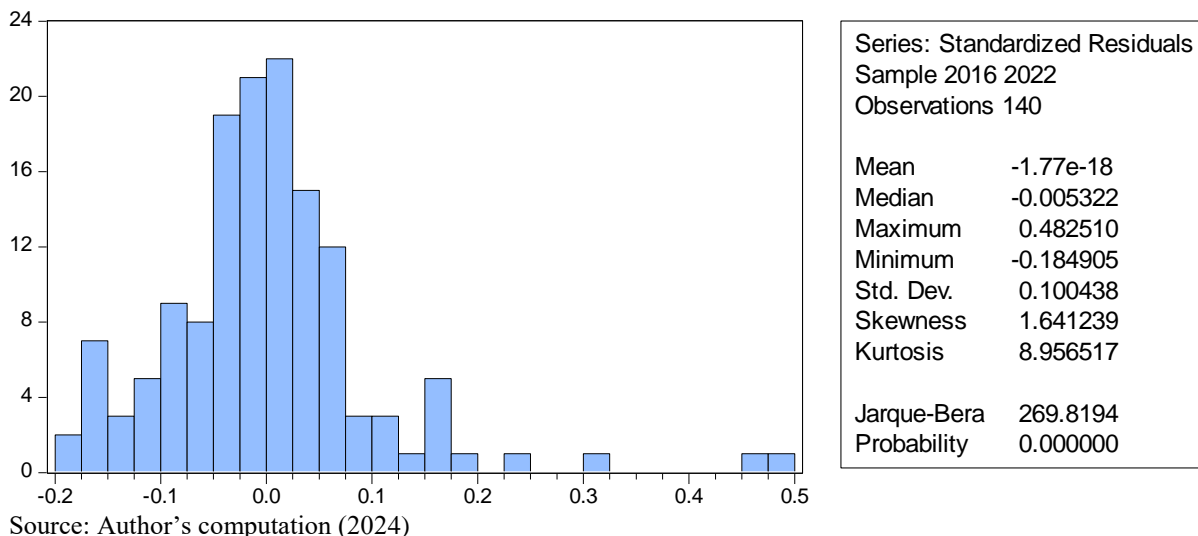
15.1 NORMALITY TESTS

One of the assumptions made in regression analysis is normality, which means that the data are normally distributed, forming a bell-curved shape. As pointed out in the descriptive analysis, the high Jarque-Bera values (Table above 2) indicate that the data are not normally distributed. This is further confirmed in the residual diagnostic histogram shown in Figure 2 below



Figure 2

Residual Diagnostics Test Result – Histogram – Normality Test



The p-value indicated in the normality graph in Figure 1 is 0.000000, and the Jarque-Bera value is quite high at 269.8194. The implication is that the null hypothesis that the data does not follow a normal distribution is accepted given the level of significance and the alternative hypothesis that the data is normally distributed is rejected. In other words, the data is not normally distributed

16 CONCLUSION AND RECOMMENDATIONS

Insurance companies perform the important role of restoring businesses when losses occur. Their capacity to carry out this function is largely hinged on their sustained financial performance. In recognition of this, NAICOM under its risk management framework mandates all insurance companies to have risk committees. To assess commitment to the substance (and not just the form) of these risk management requirements, it was important to study the effect of the attributes of the risk committees on the adequacy of premiums collected to pay claims measured by loss ratio

Results obtained from the study showed that while risk committee size had a positive effect on loss ratio because loss ratios tended to increase with reduction in committee size, risk committee independence, and diligence worsened loss ratios. These results were all however not significant, statistically. Thus overall, the study concludes that the risk committee attributes measured in this study do not impact the financial



performance of Nigerian insurance companies, as far as adequacy of premiums to pay claims is concerned

The practical implication of these findings is that insurance companies need to critically evaluate the structure and workings of their board risk committees to determine which attributes best contribute to their risk management and financial goals. However, given that none of the risk committee predictor variables showed a significant effect on loss ratio, there is a need for further investigation of the subject with the incorporation of other risk committee attributes (such as gender balance, professional competence/experience, shares held, and dual or multiple committee roles) into the study. Furthermore, the following recommendations are made following the outcome of this research study

1. Each insurance company should consider a minimum board risk committee size of between five and seven members. It was observed in the study that some insurance companies have as low as three members in their risk committees. A minimum of five members will ensure that robust deliberations are held and objective resolutions reached, even on occasions where one or two members are absent;
2. It is also recommended that at the minimum, a third of each risk committee be made up of independent directors, but no more than half. Findings have shown that while independence is an important attribute in corporate governance, the contributions of other critical stakeholders are invaluable in steering the risk management affairs of the company. Due care should be taken to ensure that independent directors are truly independent, that is, not just in form, but also in substance;
3. Initiatives that elicit frank contributions from every participant should be encouraged. For example, meeting venues could be rotated, subject matter experts could be invited to speak, members who are quiet should be asked for their opinion, etc. NAICOM stipulates quarterly meetings of the board and most committees find it convenient to have their meetings on the side lines of board meetings, hence the average meeting frequency of four per year which is considered adequate. Of greater concern, should be the quality of the meetings.



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