Effect of Internal Environment and Risk Assessment Component of ERM on the Performance of Insurance Companies in Nigeria: Moderating Role of Risk Management Information System

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ABSTRACT
This study examines the effect of internal environment and risk assessment component of ERM on the performance of insurance companies in Nigeria and the role of risk management information system as a moderator in the relationship. This research employs a quantitative methodology and focuses on the areas of Lagos and Abuja. The target group for this study consists of the top management personnel in insurance companies. By utilising a census sampling method, the study collected data from a total of 66 participants representing insurance companies in Lagos and Abuja. To examine the proposed relationships, this study utilised Smart-PLS 4, a tool for Structural Equation Modelling. The findings indicate that the performance of insurance companies is positively influenced by both the internal environment and risk assessment. Furthermore, the presence of a risk management information system enhances the connection between the internal environment, risk assessment, and insurance company performance. This research underscores the significance of prioritising the internal environment and risk assessment components of Enterprise Risk Management (ERM) as a highly effective business strategy for addressing risks that can jeopardize business performance. To our knowledge, this study represents one of the initial endeavours to establish a correlation between the internal environment and risk assessment components of ERM and the performance of insurance companies in Nigeria. There is a limited amount of research that has investigated the moderating role of a risk management information system, particularly in developing countries such as Nigeria. Insurance companies should strive to strike a balance between utilising the RMIS for risk assessment and maintaining a robust and independent risk assessment process. This can involve regular evaluation and validation

of the RMIS outputs, ensuring data accuracy and quality, and providing ongoing training and support to employees to ensure effective utilization of the system.

Keywords: Internal Environment, Risk Assessment, ERM, Risk Management Information System

1.0 INTRODUCTION

Insurance companies act as a conduit for defending businesses and personnel against such inescapable risks (Kamal & Hans, 2021). Furthermore, they provide the necessary enabling support for reducing not only transaction costs but also financial losses which can ultimately improve efficient resource allocation and economic growth. In this regard, insurance companies have become one of the most dominant forces in most micro and macro-economic activities. Thus, assessing the performance of insurance companies in Nigeria has been argued to be highly important in order to sustain the growth of the industry (Ebenezer et al., 2018).

The report of the study on the experience of global insurance market by Organisation for Economic Cooperation and Development (OECD) (2021) also confirmed that the profitability of some insurers deteriorated to some extent in some countries. The situation is similar in Nigeria, as the insurance companies are not immune from the severe nature of Nigeria during the COVID19. According to the National Bureau of Statistics, the Nigeria insurance sector recorded a negative growth (-15.3%) in 2020 against the backdrop of a 2.9% decline in growth recorded in 2019 (Proshare Nigeria, 2021). Studies such as Banmore et al (2019) have revealed that the insurance industry in Nigeria is being plagued with these challenges because of poor strategic management towards achieving strategy risk assessment through to implementation. One of the strategic management tools used by business enterprises to retool strategic objectives and ensure high performance is enterprise risk management (ERM) (Ade et al., 2020).

ERM is the process applied in strategy setting and across enterprises to identify potential events that may affect the entity and manage risk to be within its risk appetite and provide reasonable assurance regarding the achievement of entity objectives (COSO, 2004). Cristofel and Kurniawati (2021) argued that the core of the ERM practices is efficient internal environment and risk assessment, in which interrelations among risks and risk prioritization are highlighted. As argued by various risk management authors, the internal environment and risk assessment components of ERM process aims at optimizing the impact of uncertainty on any organization through a portfolio approach to both threats and opportunities.

The internal environment encompasses the tone of an organization and sets the basis for how risk is viewed and addressed by an entity's people, including risk management philosophy and risk appetite, human resource policies and practices, integrity and ethical values, Altanashat et al., 2019). Similarly, risk assessment is a dynamic and continuous process for the identification and assessment of the risks that arise on the way to achieve the goals and it deals with a variety of strategic financial and information risks

particularly the ones related to automation systems and cost-benefit analysis of the establishment of an internal control system (Abbaszadeh et al., 2019).

Several researchers have proven that internal environment and risk assessment component of ERM can improve the performance (e.g.: Apollo (2020) Atieno and Kiganda (2020), and Nugraha et al (2022). However, the findings of this study are contradictory to the research conducted by Ishenis et al (2022), Mujennah et al (2019) and Okharedia et al (2023) revealed that internal environment and risk assessment does not have a significant effect on performance. Munfaida and Al-Amin (2021) argued that lack of understanding of the condition to which ERM influences company performance is among the barriers of ERM adoption, implementation, and improvement.

Such inconsistency in the research results creates a gap to be investigated in the current research by exploring the role of Risk management information system as a moderator of the relationship between internal environment and risk assessment and insurance performance. This implies that risk management information system can strengthen or weaken the relationship between internal environment and risk assessment and performance (Abidin et al., 2020). In this regard, Risk Management Information System is an important factor which influences the rate at which ERM affects firm performance.

Risk Management Information System is a computerised system used for data collection and processing, information analysis and generation of statistical trend reports for effective ERM (Alam, 2016). Hence, an effective management information system is required to enable firms deploy their ERM. For example, creating a general effective risk management information system to ensure that internal environment and risk assessment strategies are supported. Moreover, empirical studies have been carried out to prove that Risk Management Information System has significant effects on the performance (Ahmed, 2016; Abidin et al., 2020; Muneer, 2020).

The study of the moderating role of a risk management information system in the relationship between the internal environment and risk assessment component of ERM and insurance company performance in Nigeria is crucial. Neglecting to address this issue can result in challenges such as ineffective risk management, inadequate adaptation to evolving risks, missed technological opportunities, decreased competitiveness, and suboptimal strategic decision-making. It is essential for insurance companies to recognize the significance of this study and take proactive measures to leverage technology effectively for improved performance and sustainable growth. As far as we know, this study is among the first attempts to establish a connection between the internal environment and risk assessment components of ERM and the performance of insurance companies in Nigeria. Additionally, this study provides a significant contribution to the advancement of the Resource-Based View (RBV) theory, which centres around the intangible assets of an organization, including the internal environment, risk assessment, and risk management information system.

2.0 LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1 Resource-Based View Theory

The study is grounded in the Resource-Based View (RBV) theory. RBV theory is widely utilised in management studies to explain how organisations achieve sustainable competitive advantage (Assensoh-Kodua, 2019). According to RBV theory, an organisation's competitive advantage is determined by its owned resources. Building upon Penrose (1959) argument, the resource-based view of the firm provides a theoretical perspective on the relationship between the internal environment and risk assessment components of ERM, the Risk Management Information System, and firm performance. In this context, effective risk management significantly influences firm performance. Mishra et al (2019) argue that the internal environment and risk assessment components of ERM are valuable organisational resources that cannot be fully imitated. Consequently, these components can be regarded as valuable resources that, when combined with other internal organisational capabilities, generate sustainable competitive advantages (Rehman & Anwar, 2019). This allows organisations to implement strategies that enhance operational efficiency and effectiveness, ultimately leading to the effectiveness of enterprise risk management. Consistent with this viewpoint, Saeidi et al. (2020) concluded that the value of the organisational resource (internal environment and risk assessment components of ERM) may be amplified when complemented by other resources, such as the risk management information system, making it challenging for competitors to replicate the overall effect.

2.2 Internal Environment

The internal environment comprises of the core philosophy of an enterprise, which influences the risk consciousness of its workforce and formulates the base for Enterprise Risk Management (Golick & Janko, 2018). It can be viewed as the company's culture and how this culture influences the strategy, structure and risk management within the Organisation (Klingvall & Ewerbring, 2016). Characteristics of the firm are seen as internal environment to a business and are demonstrated in terms of; organisational structure, size, ownership and management (Tasmin & Muazu, 2017). This component could be regarded as the risk context which drives risk management or a platform for effective risk management. ISO 31000 refers to this component of ERM as the risk management context. The internal environment component may, therefore, be regarded as a critical success factor for ERM implementation and operation. Therefore, this study defined internal environment component of ERM as the composition and capabilities of the Board of Directors within an organization. It involves assessing whether the board possesses the appropriate level of management, technical, and other expertise required to effectively fulfill its oversight responsibilities related to risk management (Al-Khadash et al., 2017). This includes evaluating the board's knowledge, skills, and qualifications to make informed decisions, provide guidance, and ensure accountability in addressing risks and supporting the organisation's risk management objectives.

2.3 Risk Assessment

Risk assessment is a dynamic and continuous process for the identification and assessment of the risks that arise on the way to achieve the goals and it deals with a variety of strategic financial and information risks particularly the ones related to automation systems and cost-benefit analysis of the establishment of an internal control system (Abbaszadeh et al., 2019). According to Ayimpoya et al (2020), risk assessment involves the identification and analysis of relevant risks to the achievement of objectives, forming a basis for how the risks should be managed. Risk assessment should be faced with method to ensure that all significant activities within the organisation are identified and that all the risks related to these activities have been determined. Risk assessment includes a dynamic and iterative process useful for identifying and assessing risks attached with the achievement of objectives in relation with the established risk tolerances (Wali & Masmoudi, 2020). Therefore, this study defined the risk assessment component of Enterprise. Risk Management (ERM) refers to the systematic process of evaluating and comparing various aspects of the organisation's operations with those of its competitors. This involves conducting regular assessments to identify potential risks, vulnerabilities, and opportunities for improvement by benchmarking against industry peers (Brustbauer, 2016). By continuously monitoring and analysing competitive factors, the organisation can make informed decisions and take proactive measures to mitigate risks, enhance performance, and maintain a competitive advantage.

2.4 Risk Management Information System

Successful organisations depend on their ability to provide relevant information that will improve the performance of the organisations. Therefore, a risk management information system (RMIS) is a technology-driven platform that enables organisations to collect, store, analyse, and disseminate information related to risk management processes. According to Muneer (2020), an RMIS integrates data from various sources within an organisation, such as incident reports, insurance policies, claims data, and risk assessments, into a centralised database. The system provides functionalities for risk identification, assessment, monitoring, and reporting, facilitating informed decision-making and enhancing the overall effectiveness of risk management efforts. According to Sutejo et al (2021), a risk management information system is an integrated set of software tools, databases, and information processing capabilities that support the management of risks across an organisation. This definition emphasises the technological aspects of an RMIS, highlighting its role as a comprehensive software solution that enables the automation and streamlining of risk management processes (Muneer, 2020). The system assists in data collection, analysis, modelling, and reporting, offering a structured and efficient approach to risk management activities. Therefore, this study defined Risk Management Information System (RMIS) as the information system deployed in an organisation that grants access to experience-based knowledge and expertise for risk analysis (Rodriguez & Edwards, 2009). This system enables users to tap into a repository of historical data, case studies, best practices, and lessons learned to inform risk analysis activities. The RMIS allows users

to learn from past events, leverage existing knowledge, and incorporate lessons learned into risk assessments, ultimately improving the organisation's ability to identify, evaluate, and mitigate risks effectively.

2.5 Firm Performance

Despite the emergence of financial and non-financial measures of performance, it is clear that there is still little consensus on what constitutes a valid set of performance criteria, despite the diversity of models for examining firm performance (Gowon & Popoola, 2022). It is the major indicators that explain the extent to which an organisation achieves objectives and recently, the challenges of the global business environment have re-echoed the need for corporate organisations to have more concerns about the success of business firms (Ahmed & Manab, 2016). Financial indicators are furthermore criticised due to lack of stability (Kaplan & Norton, 1996) since they concentrate more on tangible resources ignoring, for example, clients' perceptions, as well as firm's business processes. Non-financial measures of performance refer to measure of any performance that is not expressed in accounting measures (Ha & Lo, 2018). Common measures of non-financial performance include product and service quality, customer satisfaction and loyalty as well as employee satisfaction (Simon et al., 2015). Therefore, this study defined firm performance as both quantitative and qualitative measures that reflect the overall success and competitiveness of a company in relation to its competitors. It includes factors such as overall service level, customer satisfaction, and operational performance. Improved firm performance is indicated by enhancements in the overall service level, higher levels of customer satisfaction, and improved operational efficiency compared to competitors.

2.6 Relationship between Internal Environment and Firm Performance

The internal environment component of Enterprise Risk Management (ERM) plays a crucial role in enhancing firm performance. It facilitates effective communication and coordination, promoting the sharing of risk-related information and best practices (Elamir, 2020). This improves collaboration, minimises silos, and enables timely decision-making, leading to improved firm performance (Martini & Suardana, 2019). Additionally, the internal environment component aligns risk management with strategic objectives, allowing for a comprehensive understanding of risks and their impact on goals (Moh'd Abu Bakir, 2022; Yegon, 2015). This strategic alignment enables proactive risk management, enhancing firm performance and sustaining competitive advantage. Furthermore, the internal environment component fosters a culture of continuous learning and adaptability, enabling organizations to learn from past risk events and respond effectively to emerging risks (Gunawan et al., 2022). This enhances the organization's resilience and performance in a dynamic business environment. Overall, the internal environment component of ERM significantly influences firm performance through improved communication, strategic alignment, and a culture of continuous learning. Furthermore, previous empirical studies have examined the association between the internal environment and firm performance. For instance, investigations carried out by Alawattegama (2019), Nugraha et al. (2022),

and Rizki and Augustine (2022) have all demonstrated a positive and significant impact of the internal environment on firm performance. Drawing from the insights provided by the reviewed empirical literature and the underlying theories, the following hypothesis was formulated:

H1: Internal environment has a positive effect on firm performance in insurance companies

2.7 Relationship between Risk assessment and Performance Insurance

Risk assessment, as a component of Enterprise Risk Management (ERM), plays a crucial role in influencing firm performance. Risk assessment helps organisations identify potential risks and evaluate their potential impact on operations, financials, and strategic objectives (Ayimpoya et al., 2020). By systematically assessing and analysing risks, organizations can develop proactive strategies and mitigation plans to reduce the likelihood and impact of adverse events (Benjamin et al., 2021). This proactive approach to risk management enhances firm performance by minimising the occurrence of disruptions, losses, and negative outcomes (Oyede & Aderibigbe, 2022). Risk assessment helps organisations optimise their operations and improve efficiency. By identifying potential risks, organisations can implement controls and measures to mitigate those risks and enhance operational resilience (Ayimpoya et al., 2020; Illo et al., 2022). This can include process improvements, contingency planning, and the development of risk management protocols. Improved operational efficiency and resilience contribute to higher productivity, reduced costs, and enhanced firm performance (Oyede & Aderibigbe, 2022). By effectively assessing risks and implementing appropriate risk management strategies, organisations can enhance their overall performance and achieve sustainable competitive advantage. Furthermore, past empirical studies have also investigated the relationship between risk assessment and firm performance. For example, Suttipun et al (2018), Ayimpoya et al (2020), Benjamin et al (2021) and Oyede and Aderibigbe (2022) revealed through empirical result that risk assessment has a significant effect on firm performance.

H2: Risk assessment has a positive effect on firm performance in insurance companies

2.8 Moderating Role of Risk Management Information System

Theoretical and empirical evidence supports the notion that Risk Management Information System (RMIS) can moderate the relationship between the internal environment and firm performance. According to the Resource-Based View (RBV) theory, internal resources and capabilities, including the internal environment, play a crucial role in determining firm performance (Barney, 1991). The internal environment represents the organisational context, culture, and structure, which influence the way risk management activities are conducted. RMIS, as a technological tool, can enhance the effectiveness of risk management practices and improve organisational performance. The presence of an efficient RMIS enables better access to timely and accurate risk-related information, promotes communication and coordination, and enhances decision-making processes

(Thach et al., 2021). This facilitates a more comprehensive understanding of risks, allows for proactive risk management, and supports the achievement of strategic objectives. Empirical studies have provided supporting evidence for the moderating role of RMIS. For example, Muneer (2020) found that the implementation of RMIS positively influenced firm performance by improving internal environment component of risk management practices. Similarly, a study by Rauf et al. (2020) in the Malaysian public higher education sector highlighted the role of RMIS in facilitating collaboration among stakeholders, leading to better risk management outcomes and improved firm performance.

H3: The higher the RMIS, the stronger the relationship between internal environment and firm performance of insurance companies.

Theoretical and empirical research supports the idea that Risk Management Information System (RMIS) can moderate the relationship between risk assessment and firm performance. According to the Resource-Based View (RBV) theory, risk assessment is an important component of an organisation's internal resources, and it can significantly impact firm performance (Barney, 1991). Risk assessment involves identifying, analysing, and evaluating risks to make informed decisions. RMIS serves as a technological tool that enhances the effectiveness of risk assessment processes and influences firm performance. It provides a centralised platform for collecting, storing, and analysing risk-related data, enabling organisations to make informed decisions and take appropriate actions (Elamir, 2020). RMIS facilitates efficient risk assessment by improving data management, automating processes, and providing real-time information. Empirical studies have supported the moderating role of RMIS in the relationship between risk assessment and firm performance. For instance, research by Owino and Mumia (2019) found that Risk assessment levels are usually estimated with the use of Risk management information systems in order to determine whether to accept risks or take further actions. Similarly, a study by Sutejo et al (2021) in the healthcare sector showed that RMIS has a significant influence manager in decision making for business growth. By providing organisations with improved data management, automation, and real-time information, RMIS enhances the effectiveness of risk assessment practices, leading to better firm performance outcomes and competitive advantage.

H4: The higher the RMIS, the stronger the relationship between risk assessment and firm performance of insurance companies.

The conceptual model in this study is shown in Figure 1 below.

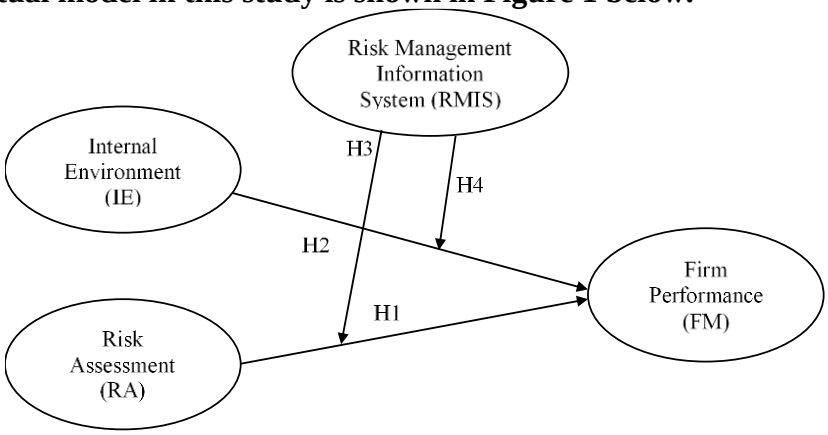


Figure 1: Research Conceptual Model

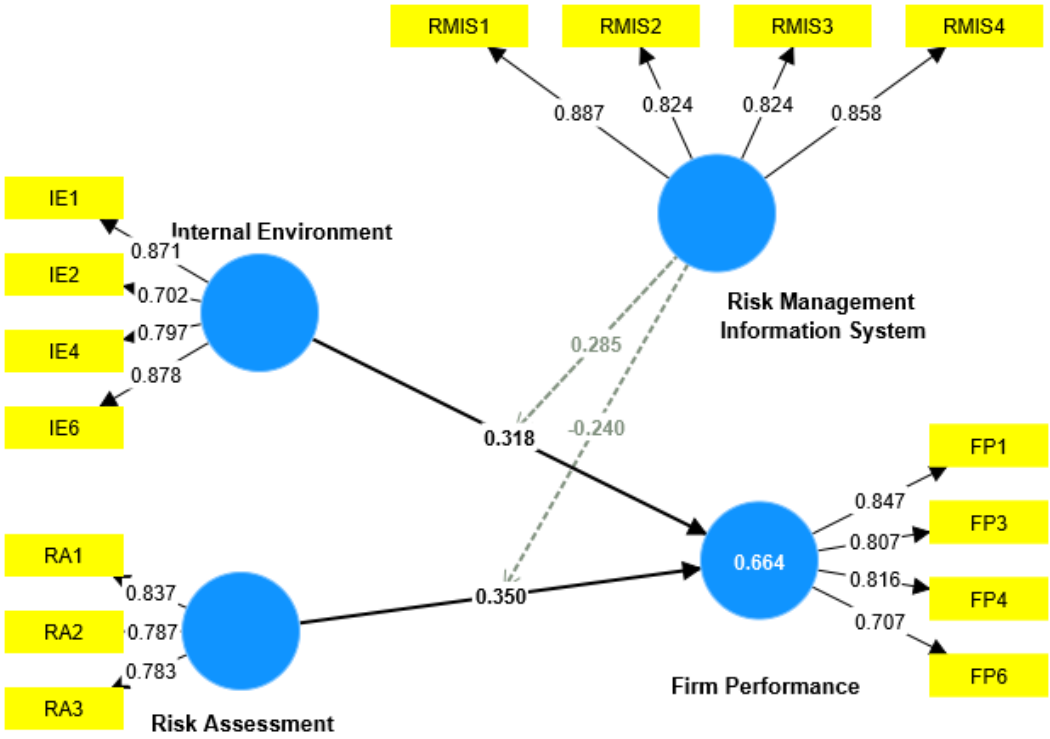
3.0 METHOD

This study employed a quantitative cross-sectional research design to investigate the moderating role of the risk management information system (RMIS) in the relationship between the internal environment and risk assessment components of enterprise risk management (ERM) and the performance of insurance companies in Nigeria. The research targeted top management personnel from various types of insurance companies in Nigeria. The research population included 56 listed insurance companies, 4 Takaful insurance companies, 6 micro insurance companies, and 3 reinsurance companies, totalling 69 operating companies as of December 31, 2022, according to the National Insurance Commission (2022).

The study utilised a census sampling approach, with a total of 69 top management participants with 66 respondents, representing a response rate of 96%. Data was collected through online questionnaires distributed via Google Forms, utilising a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Structural Equation Modelling (SEM) analysis was conducted using Smart-Pls 4.0 to analyse the data. The analysis included two aspects: the measurement model (outer model) and the structural model (inner model). The measurement model illustrated the relationship between variables and their indicators, while the structural model demonstrated the relationship between latent variables, namely the exogenous variables (internal environment and risk assessment) and the endogenous variables (firm performance). The moderation variable was the risk management information system. For a detailed understanding of the operational definitions of the variables, refer to Table 1.

3.1 Measurement Model Results

The assessment of the measurement model contains inspecting item reliability, internal consistency reliability, convergent validity, and discriminant validity (Hair et al., 2014). The initial measurement model is depicted in Figure 2.



3.2 Reliability and Validity Test

The reliability of individual item is assessed by examining the outer loadings of each construct's items. According to a rule recommended by Hair Jr. et al. (2014), the outer loading values should be within the range of 0.4 to 0.70. Following this criterion, four items (FP2, FP5, IE3, and IE5) with item loadings below 40% were excluded from further analysis. Conversely, fifteen items with item loadings of 70% or higher were retained for further examination (see Table 3 and Figure 2).

Table 3 Loadings, Composite Reliability and Average Variance Extracted

Construct Dimensions	Items	Loadings	Cronbach's alpha	Composite Reliability	AVE
Internal Environment	IE1	0.871	0.830	0.851	0.664
	IE2	0.702			
	IE4	0.797			
	IE6	0.878			
Risk Assessment	RA1	0.837	0.732	0.762	0.645
	RA2	0.787			
	RA3	0.783			

Risk Management Information System	RMIS1	0.887	0.870	0.876	0.720
	RMIS2	0.824			
	RMIS3	0.824			
	RMIS4	0.858			
Firm Performance	FP1	0.847	0.807	0.818	0.634
	FP3	0.807			
	FP4	0.816			
	FP6	0.707			

Cronbach's Alpha and composite reliability (CR) were employed to evaluate the questionnaire items' reliability. Based on the findings presented in Table 3, all items within the final assessment model exhibited Cronbach's Alpha and CR scores surpassing the recommended threshold of 0.70. Convergent validity was assessed using the average variance extracted (AVE) measure proposed by Fornell and Larcker (1981). As indicated in Table 3, the AVE values should exceed 0.50 to establish convergent validity. Furthermore, the cross-loading value, as presented in Table 4, is utilised to evaluate the discriminant validity. The table illustrates that, when compared to the latent variables, the indicators of a particular construct exhibit a stronger correlation (highlighted in bold) with their respective underlying variable. This indicates that the discriminant validity criterion has been met.

3.3 Structural Model Results

R squared (coefficient of determination)

After assessing the measurement model, the structural model was analysed. The proportion of variance in the dependent variable that can be explained by the independent variables was determined using the coefficient of determination, commonly referred to as R-squared. The results from Table 4 (refer to Figure 2) indicated that the R-squared value was calculated to be 66.40%. This implies that 33.60% of the variations in firm performance can be attributed to the influence of the internal environment and risk assessment as independent variables.

Table 4 Variance Explained in the Endogenous Latent Construct

Latent Construct	Variance Explained (R2)
Firm Performance	58.80%

3.4 Hypothesis Testing Results

The significance of the model was evaluated by analysing the path coefficients, t-values, and standard errors. The direct and indirect hypotheses were tested using the

bootstrapping technique (Hair Jr. et al., 2021). The structural model, depicted in Figure 3, was employed to examine the relationship between the internal environment, risk assessment and firm performance, taking into account the moderating variable of the risk management information system.

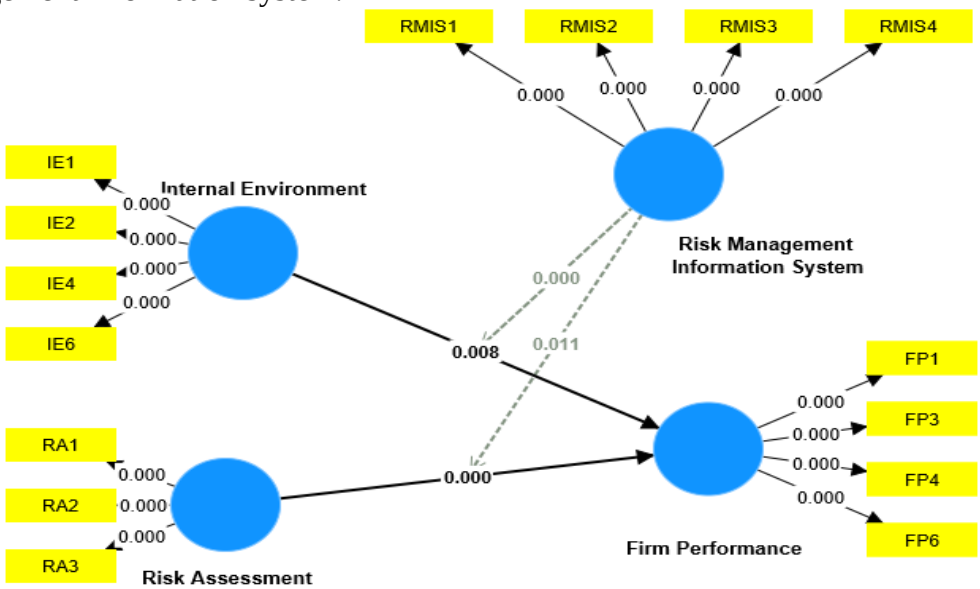


Figure 3: Structural Model

Based on the findings of hypothesis testing, all of the proposed hypotheses have been confirmed. The results supporting these hypotheses are presented in Table 5.

Table 5: Structural Model Assessment with Moderator

Hyp	Relationship	Path Coefficient	T statistics	P values	Decision
Ho1	Internal Environment -> FP	0.318	2.665	0.008	Supported
Ho2	Risk Assessment -> FP	0.350	4.155	0.000	Supported
Ho3	RMIS x Internal Environment -> FP	0.285	3.728	0.000	Supported
Ho4	RMIS x Risk Assessment -> FP	-0.240	2.533	0.011	Supported

Note: RMIS = Risk Management Information System, FP = Firm Performance

The results presented in Table 5 indicate a significant positive relationship between the internal environment and the performance of insurance companies in Nigeria (β = 0.318, t = 2.665, p< 0.01), supporting hypothesis one. Similarly, Table 5 demonstrates a significant positive relationship between risk assessment and the performance of insurance companies in Nigeria (β = 0.350, t = 4.155, p< 0.01), confirming hypothesis two. The findings also support the third and fourth hypotheses, which pertain to the moderating effect of the risk management information system. The data in Table 5 reveal that the risk management information system has a positive and significant moderating effect on the

relationship between the internal environment and the performance of insurance companies in Nigeria ($\beta = 0.285$, $t = 3.728$, $p < 0.01$). Additionally, the results in Table 5 demonstrate that the risk management information system also has a significant but negative moderating effect on the relationship between risk assessment and the performance of insurance companies in Nigeria ($\beta = -0.240$, $t = 2.533$, $p < 0.05$).

4.0 DISCUSSION

4.1 Relationship between Internal Environment and Firm Performance

The results of the study show that there was a significant positive relationship between internal environment and performance of insurance companies in Nigeria. This result implies that internal environment is the atmosphere that provides the foundation for employees deal with risk that could have negative effect on firm performance. This implies that the internal factors within the organisations, such as organisational culture, leadership, and resources, have a considerable impact on the overall performance of insurance companies in Nigeria. When the internal environment is conducive and well-managed, employees are more likely to be motivated, engaged, and committed to achieving organisational goals. This, in turn, leads to increased productivity, better customer service, and ultimately higher financial performance. These findings align with previous research such as Shad and Lai (2019), Apollo (2020) who examined the impact of internal environment on organisational performance and reported a significant effect. However, the finding does not align with authors such as Ishenis et al (2022) examined the same variables and found that internal environment has an insignificant effect on organisational performance.

4.2 Relationship between Risk Assessment and Firm Performance

The results of the study show that there was a significant positive relationship between risk assessment and performance of insurance companies in Nigeria. This result implies that risk assessment as a dynamic and iterative process are useful for identifying and assessing risks that could affect firm performance. Based on the result, it can be established companies that implement a risk-assessment program that continuously compares itself with competitors are able to improve their market share compared to those competitors. A sound risk assessment framework allows the organisation to protect itself from unfavourable consequences otherwise referred to as downside risks and allow the company to explore opportunities inherent in prudent risk management (Yvan, 2018). The result is in agreement with the study of Suttipun et al (2018), and Atieno and Kiganda (2020) who examined the impact of risk assessment on performance and found that risk assessment has a positive and significant effect on SME performance. On the contrarily, Mbuva (2018) and Okharedia et al (2023) revealed that risk assessment does not have a significant effect on SME performance.

4.3 Moderating Role of Risk Management Information System

The study findings indicated that risk management information system has a positive and significant moderating effect on the relationship between internal environment and performance of insurance companies in Nigeria. This result implies that when proper risk management information system is in place, companies are able to use their internal environment as a foundation to improve its firm performance. The most serious risks—those that could cause issues in the internal environment—are identified by organisations with the aid of a risk management information system. The result is related to the study of Muneer (2020) who found that risk management information system has a positive and significant relationship with firm performance.

The findings of the study indicate that the risk management information system (RMIS) has a significant but negative moderating effect on the relationship between risk assessment and the performance of insurance companies in Nigeria. This implies that while the presence of an RMIS is important for overall risk management, its moderating effect on the relationship between risk assessment and performance outcomes is not consistently positive. The negative moderating effect suggests that the RMIS may introduce certain challenges or limitations that affect the relationship between risk assessment and performance. Possible reasons for this negative effect could be related to the complexity of implementing and managing the RMIS, issues with data quality or accuracy, or limitations in the capabilities of the RMIS itself. One explanation for this finding could be that insurance companies heavily rely on the RMIS for risk assessment, which may lead to complacency or over-reliance on the system. If the RMIS is not properly calibrated or lacks accuracy in risk assessment, it could result in inadequate risk identification and mitigation strategies. This could negatively impact the overall performance of insurance companies.

5.0 CONCLUSIONS AND RECOMMENDATIONS

This study concludes that internal environment in the form of organizational structure and code of conducts are important factors in improving performance of insurance companies in Nigeria. Therefore, In the light of changes in the business environment, this study recommends that organisations to continuously review and communicate control structure and code of conducts to personnel responsible for implementing them. Furthermore, this study concludes that risk assessment of competitors and survey of customers' needs are necessary for the improvement of the performance of insurance companies in Nigeria. Therefore, this study recommends that risk assessment of competitors and survey of customers' needs should be a continuous process rather than occasional activity.

While implementing an RMIS is crucial for effective risk management, it is equally important to carefully consider the potential challenges and limitations associated with its implementation and use. Insurance companies should strive to strike a balance between utilising the RMIS for risk assessment and maintaining a robust and independent risk assessment process. This can involve regular evaluation and validation of the RMIS outputs, ensuring data accuracy and quality, and providing ongoing training and support to

employees to ensure effective utilization of the system. For further studies, it would be valuable to explore the specific factors or mechanisms that contribute to the negative moderating effect of the RMIS on the relationship between risk assessment and performance. This could involve examining the specific functionalities and capabilities of the RMIS, the organisational and cultural factors that influence its implementation, and the specific challenges and limitations that impact risk assessment and performance outcomes.

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