

**INFLUENCE OF ENTERPRISE RISK MANAGEMENT PRACTICES ON THE FIRM
VALUE OF LISTED NON-LIFE INSURANCE COMPANIES IN NIGERIA.**

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Abstract

The study investigated the individual and joint impact of enterprise risk management practices (strategy, operations and compliance) on firms' value among listed non-life insurance companies in Nigeria. The study adopted an ex post facto research design. Census sampling technique was employed to accommodate the eleven listed non-life insurance companies in Nigeria. The data gleaned for the purpose of the study with the aid of E-Views and the statistical tool employed was multiple regression analysis. The study revealed that strategy and operations individually influence enterprise risk management with P-value of 0.0345 and 0.0256 respectively. While compliance did not with P-value of 0.3841. However, there is no joint impact of enterprise management practices on the firms' values of listed non-life insurance companies in Nigeria with p-value at 0.8898. Therefore, listed non-life the companies must prioritize operational and strategic enhancements within their ERM frameworks while examining more efficient ways to incorporate compliance into the firms' risk management architecture. The recommended that listed non-life insurance companies should create and execute plans that complement their long-term goals by expanding the market, diversifying product offerings, and using technology to gain competitive edge.

Key words: Compliance, Enterprise risk management, Strategy, Operational risk and Compliance.

1.0 INTRODUCTION

In the last few decades, organisations are beginning to recognize the pertinence of Enterprise Risk Management (ERM) as a viable strategy that can aid the circumvention of threats and optimisation of opportunities in the business climate (Caldara, et al, 2022; Bohnert et al., 2018; Bailey, 2019; Derbali & Lamouchi, 2020). In an increasingly complicated and unpredictable corporate world, ERM, has emerged as a crucial framework to managing risks and maximizing value (Danisman & Demirel, 2018). The implementation of ERM is particularly important for insurance companies, whose main business is risk underwriting and claims management. Therefore, the fundamental goal of adopting an enterprise-wide approach to insurers' exposures is wealth maximisation. This can be achieved by ensuring that risk portfolios are adequately monitored and managed holistically (Abbas et al., 2021). As a strategic approach, Enterprise Risk Management (ERM) enables insurance companies to enhance customer satisfaction, gain competitive advantage, and strengthen their reputation, while simultaneously delivering value to stakeholders (Farrell & Gallagher, 2019).

Despite its benefits, many non-life insurance companies in Nigeria still find it difficult to fully implement and integrate ERM framework across strategy formulation and implementation, operations, risk management, and compliance (National Insurance Commission, 2022). Insurance firms in Nigeria have been prejudiced by low insurance penetration, poor regulatory enforcements, macroeconomic volatility, and climate change. These challenges seem to have made it difficult for non-life insurance firms to achieve sustainable growth and development (PwC Nigeria, 2020; Abass, et al, 2023). These seem to have adversely threatened risk-averse practices, with disregard to managing risks from enterprise-wide point of view. For example, some Nigerian insurers aggressively undercut premiums to increase their market share in order to focus on generating short-term revenue (Abass, et al, 2023). Although this strategy could attract and retain customers, it however lowers profitability and exposes insurers to greater underwriting losses. According to the 2023 report by NAICOM, 65% of Nigerian insurers had combined loss ratios higher than 100%, which suggests unsustainable underwriting and marketing strategies. Similarly, insurers in Nigeria face difficulties in adhering to regulatory frameworks, which might affect their firm's value (Abbas et al., 2021). Regulatory directives like capital adequacy, minimum capital requirements had also been managed in silo. Therefore, this paper aims to examine the individual and joint effect of enterprise risk management practices (firms' strategy, firms' operations and firms' compliance) on firm value of listed non-life insurance companies in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual Review

The aim of ERM is to systematically comprehend the relationships and interdependencies of risk exposures of an organisation (Shaleh & Kurniasih, 2021). It signifies a notable paradigm change away from the conventional approach of risk management that focusses on integrated perspective across all risk categories (Bailey, 2019). In recent years, insurance has seen significant advancements in risk management, which have essentially changed its business models. Efforts are being made by insurance firms to focus on identifying and managing emerging risks continuously (Jankensgård, 2019). Since an organisation's strategic choices are directly related to how it identifies, evaluates, and handles risks, a firm's strategy is a crucial indication of enterprise risk management (Boyle, DeZoort & Hermanson, 2018). It ensures that risks are not only minimised but also taken into account in relation to the company's wider objectives (Lechner & Gatzert, 2017). A company's capacity to improve its value, safeguard assets, and attain long-term

sustainability are dependent on how well its strategy and ERM framework align (Caldara, et al, 2022). Meanwhile, operations management is a crucial indication of enterprise risk management (McShane, 2018; Danisman & Demirel, 2018). The long-term stability and expansion of an insurance company are supported by effective ERM in operations, which guarantees that risks are consistently tracked and managed. An essential parts of insurance companies' operations are underwriting and claims (Abass, et al, 2021; Hoyt & Liebenberg, 2011).

Firms' compliance measures the adherence to laws, rules, standards, and internal policies that are directly related to their risk management procedures (Iswajuni, et al, 2018). While compliance shows how committed a company is to managing its risks within ethical, legal, and regulatory bounds. It minimizes exposure to risks that could compromise operations, reputation, and financial stability (Callahan & Soileau, 2017). Strict regulatory standards pertaining to capital sufficiency, solvency, claims processing, and consumer protection apply to insurance businesses (NAICOM, 2022; Fadun, 2013).

According to Faisal, et al (2021), firm value is an economic indicator of a company's performance. It is used to compare businesses with different capital structures since it concentrates on the firm's whole capital structure. Tobin's Q is the most often used instrument for measuring value (Hoyt & Liebenberg, 2011).

2.2 Empirical Review

Hoyt and Liebenberg (2008) described ERM's drivers and then modelled its impact on company value using a Heckman two-stage selection correction model. The study covered US publicly listed insurance companies. The study found out that institutional ownership, international diversification, and business size were all positively correlated with ERM adoption. Hoyt, et al (2008) examined the degree of ERM programme implementation across US insurers. The study used a maximum-likelihood treatment effects approach. The finding showed that ERM usage negatively connected with leverage and reinsurance use and positively correlated with company size and institutional ownership.

Shaleh & Kurniasih (2021) investigated the impact of enterprise risk management (ERM) on firm size, leverage, profitability, and institutional ownership of insurance subsector listed on the Indonesia Stock Exchange. The study employed twenty-one (21) samples that satisfied the requirements for purposive selection from 16 insurance firms that were listed on the IDX in 2020. Path analysis method was adopted to process the data. The study's findings indicated that institutional ownership had no influence on ERM, firm size had a substantial positive impact. Abbas et al. (2021) used insurance businesses listed on the Indonesia Stock Exchange as a case study to investigate effects of ownership concentration, number of commissioners on committee, risk management committee, company size, and leverage on enterprise risk management. The study employed was panel data regression analysis. Board size, stake concentration, the risk management committee, and leverage had minimal impact on enterprise risk management transparency.

Faisal, et al, (2021) investigated how investment choices mediated the relationship between business value and enterprise risk management (ERM). Using Slovin's technique, 224 firms that were listed on the Indonesia Stock Exchange during 2017 and 2018 were chosen as a sample. The Sobel test and route analysis were used in the study to examine the mediating role of investment choices. The study found out that Indonesian public listed corporations are still in the early stages of implementing ERM.

2.3 Theoretical Review

This study is anchored on corporate risk management theory. According to Li and Wu (2009), corporate risk management theory offers a framework for recognising, evaluating, and mitigating the risks that companies face while accomplishing their goals. It is a multidisciplinary idea with roots in economics, finance, and strategic management that highlights that risk management is about protecting and increasing a company's value as much as preventing losses. Firms may comprehend their exposure and rank risks according to severity by using quantitative methods such as Value at Risk (VaR), scenario analysis, and stress testing. This study is anchored on corporate rate risk management theory because the theory is the foundation for explaining the rationale behind corporate entity's goal of managing risks at from the top echelon of the firm. Corporate risk management theory establishes different strategies, methods and techniques that a corporate organisation may employed while tailoring while aligning these efforts to the strategic objectives of the firm. Thus, the corporate risk management theory is all-encompassing as it addresses all kinds of risks and speculates different methods such as risk diversification, risk avoidance, risk duplication, risk segregation that can be applied in distinct situations to address risks that may affect the value of a firm.

3. RESEARCH METHODS

The study adopted ex-post facto research design. The study adopted census sampling technique. There are eleven (11) listed non-life insurance companies in the Nigerian Exchange Group (NGX). The rationale behind the study's focus was hinged on the fact that the study's dependent variable was measured by firms' equity market value. Secondary data from the Annual Financial Report for a eleven (11) year period from 2013 to 2023.

Table 1 Measurement of Variables

Variables	Indicators	Measurement	Authors
Independent Variables	Firms' Strategy	Ratio of net profit after tax to Total asset	Golshan & Rasid, (2012); Arnold, et al, (2012)
	Firms' Operations	Ratio of net profit after tax to Shareholders' fund	Gordon, Loeb & Tseng (2009); Golshan et al., (2012)
	Firms' Compliance	Ratio of investment income to total investment	Gordon, Loeb & Tseng (2009); Golshan et al., (2012)
Dependent Variable	Firm Value	Ratio of market price per share/Book value per share	Adam & Goyal (2008); Shaleh & Kurniasih (2021)
Control Variables	Firms' size	Natural Log of Total Assets	Liebenberg & Hoyt (2011);
	Financial leverage	Book value of liabilities/ market value of equity	Gordon, Loeb & Tseng (2009); Farrell & Gallagher (2015)
	Growth opportunity	Change in Revenue	Hoyt and Liebenberg (2011); Razali, et all, (2011)

The model used in the study is presented below:

$$FV_{it} = f(FS, FO_{it}, FC_{it}) \quad (1)$$

Where:

FV = Firm Value

FS = Firms' Strategy

FO =Firms' Operations

FC = Firms' Compliance

Thus, the panel data regression model is expressed as follows:

$$FV = \beta_0 + \beta_1 FS_{it} + \beta_2 FO_{it} + \beta_3 FC_{it} + \beta_4 FS_{it} + \beta_5 LE_{it} + \beta_6 GO_{it} + \mu_{it} \quad (2)$$

4. RESULTS

Table 2.: Summary Statistics

Sample Structure: $N = 11, T = 11$ (2013 – 2023)

Variables	Obs.	Mean	Std. Dev.	Min	Max	Skew.	Kurt.
TOBIN	121	0.3310	0.2573	1.010	0.0196	0.9787	2.8952
Firms' Strategy	121	0.0452	0.0541	0.207	-0.1030	0.2242	3.9484
Firms' Operation	121	0.1368	0.3122	3.008	-0.5224	6.4298	60.719
Firms' Compliance	121	0.0483	0.0569	0.233	-0.1099	0.5407	4.0983
Size	121	16.824	1.0099	19.78	15.316	0.9980	3.6787
Leverage	121	2.8889	4.0531	17.92	0.0029	2.2431	7.3358
Growth	121	0.1015	0.3336	0.940	-0.9437	-0.8418	5.1327

Source: Researcher's computation, (2025).

Table 2 indicate that Firm Operation, Firm Strategy, Firm Compliance, Leverage, and Growth Opportunity exhibit high variability, as evidenced by standard deviations that exceed their respective means. This suggests significant dispersion in these variables, potentially implying limited predictive reliability. Conversely, Tobin's Q and Size show low variability, with standard deviations smaller than their means, indicating more consistent data patterns and possibly stronger predictive potential. The distributions of Firm Strategy, Firm Operation, Firm Compliance, Size, Leverage, Growth Opportunity, and Firm Value (Tobin's Q) are positively skewed, signifying that the majority of their values fall below the mean, with a few extreme values on the higher end. All variables except Tobin's Q exhibit platykurtic distributions, with kurtosis values significantly below the threshold of 3, characteristic of normal distributions. This indicates flatter distributions with lighter tails.

Table 3: Test of Multicollinearity

Sample: $N = 11, T = 11$ (2013 – 2023)

Dependent Variables: Tobins Q		
Variable	VIF	1/VIF
Firm Strategy	20.680	0.048
Firm Operation	2.122	0.471
Firm Compliance	18.695	0.053
Size	1.559	0.641
Leverage	2.002	0.500
Mean VIF	9.0116	.

Source: Researcher's computation (2025).

Table 3 presents the VIFs and tolerance levels within the explanatory variables. The results show that all variables have VIFs below the threshold of 10. Thus, it appears that all VIFs falls within acceptable limits for the absence of high relationship among the explanatory variables.

Table 4. -: Endogeneity Test Results
Sample: N = 11, T = 11 (2013 – 2023)

Model	H ₀	Durbin Chi2	p-value	Wald Test F-stat.	p-value
Tobins Q	Exogenous	0.627507	0.8901	0.209169	0.8898

Source: Research's computation (2025)

The endogeneity test results indicate no endogeneity in the model, suggesting that the policy variables are free from omitted variables, measurement errors, and simultaneity bias. In the analysis of the relationship between Firms Value (assessed using Tobins Q) and Firms attributes, based on the F-statistic (2.0800, p = 0.0000), was found to be more appropriate than the common effect (CE) estimator. The estimator was less efficient, as indicated by the Breusch-Pagan Lagrange Multiplier (BP-LM) test (0.0600, p = 0.4020). Thus, the estimator, which accounts for heterogeneity among the selected firms, was adopted for the inferential analysis.

Table 4.: Panel Model Estimation Results
Panel Structure: N = 11, T = 11 (2013 – 2023)
Dependent Variable: Tobins Q

Estimator:	CE
Independent Variable	
Intercept	-0.127605 (0.5182)
Firm Strategy	0.483465** (0.0345)
Firm Operation	0.009930** (0.0256)
Firm Compliance	-0.549493 (0.5366)
Size	0.010390 (0.3841)
Leverage	-0.005754 (0.0958)
GRWT	0.883228*** (0.0000)
Further Statistics and Tests	
Explanatory Power	
R-squared	0.848644
Adj. R-squared	0.839827
F-statistic (Prop)	96.25237*** (0.00000)
Diagnostics	
CD Test: BP LM test	91.73677 (0.0014)
Specification test (RESET)	2.453904 (0.0141)

Source: Researcher's computation (2025)

Regression of individual independent variable on the dependent variable from Table 4 shows the influence of Firm's Strategy on Firm Value. Firms Strategy (FS) impact statistically significant and has positive effect ($\beta_1 = 0.483465$, $p = 0.0345 < 0.1$) on Tobins Q as an indicator of Firms

Value. Firms Operation (FO) impact statistically significant and positive effect ($\beta_2 = 0.009930$, $p = 0.0256 < 0.1$) on Tobins Q as a measure of Firms. While Firms Compliance (FC) impact statistically insignificant and negative effect ($\beta_3 = -0.549493$, $p = 0.5366 > 0.10$) on Tobins Q. However, changes in firm size (SZ, $\beta_4 = 0.010390$, $p = 0.3841 > 0.1$), Financial Leverage (FL, $\beta_4 = -0.005754$, $p = 0.0958 > 0.1$), and firm growth opportunity (GRWT, $\beta_5 = 0.883228$, $p = 0.0000 < 0.1$) exert, respectively, negative and positive, however, insignificant effect on Tobins Q, except for growth opportunity which has positively relationship and also significant to the Tobins Q. However, the Wald test statistic (0.209169) points all the included variables (FS, FO, FC, Size, Leverage and Growth) appear to a jointly weak insignificant effect on Tobins Q with p -value (0.8898)

5. DISCUSSION AND RECOMMENDATION

The study's findings demonstrate that, the strategy, operations, and compliance of listed non-life insurance companies, all of which are indications of Enterprise Risk Management (ERM) have a combined insignificant and weakly positive impact on the firms' value as determined by Tobin's Q. Though, strategy and operations show a strong relationship, compliance did not. This implies that even while these ERM elements work together to increase company value, their influence is not statistically significant. The weak positive correlation would suggest that non-life insurance businesses' adoption of ERM procedures is still in its infancy and lacks the efficacy and integration required to generate significant value creation. Insurance firms could be concentrating on certain ERM elements without properly integrating them with their overarching strategic goals. These results highlight the necessity for non-life insurance firms to improve the alignment of strategy, operations, and compliance in their ERM systems. The results of this study negate the findings of Hoyt and Liebenberg (2011) but is in consonance with Farrell and Gallagher (2015).

Therefore, the study recommends that non-life listed insurance companies should create and execute plans that complement their long-term goals. Since firm strategy greatly increases business value, this might involve expanding the market, diversifying product offerings, and using technology to obtain a competitive edge. They should strive to include compliance into more extensive strategic and operational activities. This might entail going beyond following regulations to using compliance as a means of fostering reputation and trust. Non-life listed insurance companies should set up procedures for routinely evaluating and modifying their ERM procedures.

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