

RISK BASED SUPERVISION AND FINANCIAL PERFORMANCE OF INSURANCE COMPANIES IN NIGERIA**By****Iroh, E. H. and Orobator, B**

Department of Actuarial Science and Insurance, University of Benin

Corresponding author: emekalala@yahoo.co.uk**ABSTRACT**

This study empirically examined the effect of risk-based strategy on the performance of listed insurance companies in Nigeria. Panel data of twenty-two (22) insurance companies spanning 2012 to 2022 were collected from the audited annual publication of each company as published by the Nigerian Exchange Limited (NEL). Several statistical and econometric techniques of descriptive statistics, correlation analysis and the panel regression of fixed and random effects methodology within static panel were adopted. Findings revealed some variables considered conform to A priori expectation in the FE model. Risk management (RMGT), Risk-based strategy (RBS) and firm size (FSIZE) have a significant positive effect on ROA. However, only the effect of firm age (FAGE) and risk-based capacity (RBC) was negative and not significant at 5 % level. From the foregoing analysis, the study concludes that risk-based strategy and risk management are significant determinants of insurance firm performance in Nigeria.

Keywords: *Risk-based Supervision, Nigerian Exchange Limited, FE, RE*

1. INTRODUCTION

Insurance companies in Nigeria often operate in heavily regulated environments due to their substantial economic and societal contributions, as well as their impact on the general populace. In order to promote healthy market development and protect policyholder interests, there is a need for a strong regulatory framework and competent oversight. This vital function is assigned to the body in Nigeria in charge of monitoring and regulating the insurance sector (Elebiji & Fatokunbo, 2021). One of the main forces supporting the adoption of risk-based supervision in Nigeria is the National Insurance Commission (NAICOM), sometimes referred to as the Insurance Regulatory Authority. The necessity to improve market stability for the insurance sector, safeguard policyholders, and promote sustainable market growth has been the driving force behind this shift. Risk-based supervision (RBS) focuses regulatory efforts on the particular risks that financial firms face. A considerable change in the regulatory environment of the insurance industry has been made in Nigeria with the implementation of risk-based supervision (Corporate Governance Guidelines for Insurance and Reinsurance Companies in Nigeria [CGGIRC], 2021). As a result, regulatory resources should be distributed in a way that reflects the real risk profile of each insurance firm. This strategy acknowledges that not all insurers pose the same amount of risk. (National Insurance Commission [NAICOM, 2021]).

Performance can be broadly divided into financial and non-financial performance. Financial performance (FP) is the outcome of carrying out financial activities. It is the process of evaluating a firm's strategy and actions in terms of monetary values. For all businesses that prioritize profits, such as insurance firms, FP is a desired goal (Yahaya & Lamidi, 2015). To ensure that an organization maintains financial accountability, financial performance is evaluated using metrics such as profitability, liquidity ratios, and the ease with which debt can be settled. Furthermore, it serves as an indicator of how well a company generates revenue by leveraging resources from its primary business. The phrase is also used as a broad indicator of company's long-term financial stability (Will-Kenton, 2023). Another term for financial performance is a monetary indicator of the outcomes of a company's activities and policies. The return on investment, return on assets, return on equity, and value-added metrics for the company represent these outcomes (Gatuhu, 2013).

Insurance firms have two primary objectives which are risk sharing through reinsurance and restoring the insured or policy holder to their pre-loss status. Nevertheless, the ultimate goal of an insurance company is to generate profits that will keep it operational and also make strategic business decisions to ensure financial stability while they prioritize customers satisfaction (Frances-Outreville, 1998). By managing risks effectively, investing in profitable ventures, and balancing premium costs and payouts, insurance companies can maintain a healthy bottom line while fulfilling their responsibility to policyholders. Ultimately, the success of an insurance firms hinges on its ability to strike a balance between its financial goals and its commitment to providing quality coverage and support for those who rely on it.

Insurance supervision includes ensuring that insurance company operations are carried out in accordance with regulatory frameworks, evaluating market behavior as well as investment activities, determining the system of governance in the undertaking, looking at financial accounting and reporting, monitoring the operation of managing bodies, and adhering to the code of conduct of the professional bodies in the actuarial and insurance professions (Organization for Economic Co-operation and Development [OECD], 2019).

Overtime, the insurance sector in Nigeria has been faced with risk of insolvency and this has brought the need for NAICOM to sort out more efficient and effective approach in regulating and supervising the sector. Also, there has been a continuous growth in the sector both locally and internationally in past few years and this has made it a necessity for regulatory bodies to comply with international best practices. Hence, the introduction of RBIS which has been under way since 2015 the World Bank describes the RBIS as a system where the supervising body allots time and resources to companies in proportion to the degree of risk associated with their balance sheet.. The RBIS will allow NAICOM to determine capital requirements for individual insurance companies based on the risk they carry in their portfolios instead of applying the same minimum standards across the industry (World Bank, 2018).

Evaluating the effect of risk-based supervisory technique on the financial performance of insurance businesses in Nigeria includes a number of challenges and complexity because of the various variables inherent in the insurance sector and the distinct environment of the Nigerian market.

Risk-based supervision has the potential to modify insurers' behavior and have an impact on a number of areas, including underwriting procedures, pricing schemes, and market concentration. It can be difficult to establish a direct causal link between these modifications and the regulatory change. And insurers may use various risk assessment techniques and

reporting standards. Standardizing these procedures for comparison can be challenging and may take a lot of work (National Insurance Commission [NAICOM], 2021).

In spite of NIACOM's best efforts to introduce RBIS in Nigeria, little research has been done on the effect of risk-based supervision on the financial performance of insurance businesses in that nation. About the effect of RBIS, there is not much empirical data. Risk-based supervision and insurance companies financial performance in Nigeria can also be evaluated more thoroughly using interdisciplinary methodologies comprising insurance specialists, economists, statisticians, and regulatory agencies however, this study will look into the introduction of RBIS and its impact in insurance companies financial performance in Nigeria, combining quantitative and qualitative research procedures, collecting information from dependable sources, take other models and analytical approaches into consideration, as well as the various limitations of the studies. Hence, this study's major goal is to evaluate how risk-based insurance monitoring affects Nigerian insurance companies' performance. The study's precise goals are to ascertain the impacts of risk management, risk-based supervision and risk-based capacity on the performance of the insurance company in Nigeria.

The present research aims to augment the existing information on risk-based insurance supervision, particularly with respect to the financial performance of insurance companies operating in Nigeria. The findings of this study will provide insights into the awareness, understanding, and readiness of insurers to implement risk-based insurance supervision, as well as its effectiveness in identifying and mitigating risks faced by insurers.

This study makes a significant contribution to the existing literature on insurance regulation and supervision, particularly in emerging markets like Nigeria. As the insurance industry in Nigeria continues to evolve, it is crucial to assess the impact of regulatory reforms such as RBIS on insurers' performance and competitiveness.

2. LITERATURE REVIEW

Risk-Based Supervision (RBS)

In order to ensure a stable and efficient market for both insurers and policyholders, regulatory bodies are expected to carry out periodic supervision and examination of insurance companies. Such supervisions are usually carried out by regulatory agencies like the National Insurance Commission (NIACOM) who are required to ensure orderliness in the industry at large.

RBS is a method of regulatory oversight that is centered on identifying and controlling risks in the financial services sector. It is a proactive, future-focused framework with the mission of identifying, monitoring, and reducing risks encountered by regulated companies. RBS tailors

its supervision efforts to take into account the inherent risks connected to the operations of financial institutions. It also aims to foster stability and safeguarding the interests of customers, maintain the security and soundness of financial institutions. It entails the detection, evaluation, and reduction of risks that may have an effect on the institutions and the larger financial system (Financial Stability Institute, 2020). Risk-based supervision is used differently in different jurisdictions, but it is now a widely recognized strategy on a global scale. It gives authorities a more flexible and futuristic framework for monitoring financial institutions, thereby fostering stability, soundness, and consumer protection. Risk-based supervision is used differently in different jurisdictions, but it is now a widely recognized strategy on a global scale. It gives authorities a more flexible and futuristic framework for monitoring financial institutions, thereby fostering stability, soundness, and consumer protection.

Solvency I

The first-generation solvency framework for insurance businesses in the European Union (EU) is referred to as Solvency I, commonly known as the Solvency Margin or Minimum Capital Requirement (MCR). It debuted in 2004 and was later phased out in favor of Solvency II in 2016. By establishing minimum capital requirements, Solvency I sought to secure the financial security and solvency of insurance companies. Standardizing solvency criteria and fostering financial stability within the insurance business were accomplished in large part through Solvency I. It had certain drawbacks, though, such as a lack of risk sensitivity and a very straightforward method of determining capital sufficiency. These flaws served as the impetus for the creation and introduction of Solvency II, which gave insurers in the EU a more thorough and risk-based approach to solvency regulation.

Solvency II

A robust regulatory framework known as Solvency II is in place for insurance companies doing business in the European Union (EU). Its objectives, which were to improve policyholder protection, promote financial stability, and improve risk management in the insurance industry, were realized on January 1st, 2016. The former solvency framework, known as Solvency I, was superseded by Solvency II. Solvency II, represents a significant shift towards a more risk-based and sophisticated approach to solvency regulation. It seeks to improve the financial resilience of insurers, protect policyholders, and enhance the overall stability of the insurance industry in the EU. It strives to improve policyholder protection by bringing capital requirements into line with underlying risks faced by insurers. Three foundational pillars

supported the solvency II architecture. Based on risk, Pillar 1 described the Minimum Capital Requirement (MCR) and Solvency Capital Requirement (SCR). Pillar 2 establishes a supervisory review process that evaluates insurers' risk management methods and organizational setups using tools like the Own Risk and Solvency Assessment (ORSA). Pillar 3 focuses on improved disclosure and transparency standards, necessitating that insurers publish comprehensive information on their financial status, risk exposures, and governance structures (European Insurance and Occupational Pensions Authority, 2016).

Empirical Review

Many scholars have examined the effect of risk-based monitoring on the financial performance of organizations. It is evident from the data that risk-based supervision and performance are strongly correlated. The supervision of Nigerian banks served as the model for risk-based supervision, which was then exported to other financial institutions such as insurance firms. Tarila and Samson (2021) examined the influence of supervision on the financial stability and profit performance of insurance firms in Nigeria. Time series data from 2011 to 2017 was gathered by the authors from industry reports, financial reports, structured research questionnaires, and the Nigerian Insurers Association (NIA) Digests. Regression analysis and a correlation matrix were used to analyze the data (OLS approach). The results of the data analysis point to a strong impact of insurance monitoring on profit performance. It is advised, in light of these findings, that Nigeria's insurance regulating body enhance the operational guidelines for insurance that are provided to insurance companies by putting into practice effective and efficient enforcement measures. The primary emphasis of the study was how insurance oversight impacts the efficiency and financial stability of insurance companies in Nigeria. Based on the data analysis and theoretical analysis of this work, researchers are clearly in agreement that insurance supervision is a valuable tool that can be used in the insurance sector to improve the financial stability and profit performance of insurance firms. This is because one of the main goals regulators work to achieve in the sector is the improvement of financial stability and profitability because of the industry's importance to a country's entire financial system. The research findings indicate a noteworthy correlation between the financial performance of insurance companies in Nigeria and insurance supervision. Additionally, the Insurance Supervisory Authority (NAICOM) has demonstrated notable efficacy in bolstering the financial stability of the country's insurance sector and fostering a consensus of viewpoints. Adebayo and Oladipo (2018) investigated the connection between risk-based supervision and the financial stability of insurance companies in Nigeria. In order to guarantee the stability and

soundness of the insurance business, the authors acknowledge the significance of adequate risk-based supervision. The study used a quantitative methodology and a panel data analysis to look at a sample of non-life insurance providers in Nigeria. In order to evaluate the effects of risk-based supervision on the financial performance of these enterprises, the study evaluates a number of financial stability indicators over a given time period, including solvency ratios and profitability measurements. The study's conclusions show a strong correlation between risk-based supervision and the financial health of Nigerian non-life insurance companies. Better solvency ratios and profitability metrics are a result of the deployment of risk-based supervisory frameworks, indicating that a more risk-sensitive regulatory strategy has a beneficial impact on the financial stability of non-life insurers. Overall, the research points to the importance of risk-based supervision in maintaining the financial security and resilience of non-life insurance enterprises in Nigeria. These insights can be used by regulators and policymakers to improve risk-based supervisory frameworks and the country's insurance sector's overall stability.

Uzoigwe and Njoku, (2017) examined the connection between risk-based supervision and the financial soundness of insurance businesses in Nigeria. In order to guarantee the stability and solvency of insurance firms, the authors emphasize the significance of risk-based oversight. In this study, data from non-life insurance companies doing business in Nigeria were analyzed using a quantitative methodology. To determine how risk-based supervision has affected these companies' financial health, the study takes into account certain financial soundness measures such capital adequacy ratios and liquidity ratios. The study does, however, acknowledge some constraints, such as the use of secondary data and the potential impact of unobserved factors. Nevertheless, the study offers important empirical proof of the association between risk-based oversight and Nigeria's insurance companies' strong financial standing. The study's conclusions have significance for regulators and decision-makers, highlighting the value of risk-based supervision in fostering financial stability and solvency in the non-life insurance market. The regulatory authorities can improve risk-based supervision frameworks and guarantee the long-term sustainability and viability of non-life insurers in Nigeria by utilizing these findings.

Ademola and Okeowo (2020) evaluated the performance of Nigeria's insurance companies and the effectiveness of risk-based supervision. A strategy of monitoring financial institutions based on their risk profiles and the potential effects of their actions on the financial system is known as risk-based supervision.

The study examined how risk-based supervision impacts the profitability, solvency, liquidity, and efficiency of insurance companies in Nigeria. In order to examine the hypotheses, the study

used panel data analysis and multiple regression models. The performance of non-life insurance businesses in Nigeria is found to be significantly and favorably impacted by risk-based supervision, according to the research. The work also offered policymakers and regulators some suggestions on how to enhance the application of risk-based supervision in Nigeria.

Adegbemi and Adeolu (2018) evaluated the impact of risk-based supervision on insurance companies' performance in Nigeria. They used risk-based supervision index, firm size, leverage, inflation rate and GDP growth as the explanatory variables to assess how risk-based supervision influences the profitability, solvency, liquidity and efficiency of non-life insurance companies in Nigeria. The work analyzed the hypotheses using panel data analysis and various regression models. The performance of non-life insurance businesses in Nigeria is positively and significantly impacted, according to the article, by risk-based supervision. The article also offers policymakers and regulators some recommendations on how to improve risk-based supervision in Nigeria.

However, there are not many thorough empirical studies that explore the precise effects of risk-based insurance monitoring on Nigerian insurance companies. Studies on risk-based supervision and its overall consequences do exist, but there is a dearth of specialized study on insurers, particularly how they respond to and they are impacted by risk-based approaches. Also, there is a lack of defined performance measurements and indicators that may be used to evaluate how risk-based monitoring has affected non-life insurers. A better understanding of the efficacy of the methodology can be obtained by developing and using appropriate metrics that capture both quantitative and qualitative aspects of impact.

Another gap is that the risk mitigation tactics used by insurers in response to risk-based monitoring are frequently not fully explored in the literature. There is a critical knowledge vacuum about how insurers modify their risk management procedures, underwriting tactics, and product offerings to adhere to the new regulatory approach. And studies that follow the long-term consequences of risk-based supervision on insurers are rare. The sustainability and long-term effects of the methodology can be better understood by examining changes in performance, profitability, and market share over a prolonged period.

Finally, there hasn't been much research done comparing the effects of traditional rule-based supervision with risk-based supervision on insurers. The benefits and drawbacks of each approach can be better understood by examining how the two approaches differ in terms of their performance and effectiveness. However, filling in these gaps would considerably advance our knowledge of how Nigerian insurance companies are impacted by risk-based

insurance monitoring methods. To provide a more complete picture of the effects of this regulatory strategy, this study investigates these areas through qualitative and quantitative studies, case analyses, surveys, and interviews.

3. METHODOLOGY

This study employs a descriptive research methodology in an effort to analyze the data collected and present a meaningful and accurate picture of the events as well as to explain people's knowledge and conduct. The descriptive research design is used in this study because it provides a meaningful and accurate picture of the events and seeks to explain people's behavior and understanding based on the data acquired. All twenty-four (24) insurance businesses listed on the Nigeria Exchange Limited (NEL) as of December 31, 2022, comprise the population of this study. The study restricted its sample size to include only insurance firms listed on the floor of the Nigerian Exchange Group (NGX) using the census sampling technique. This implies that the population equal sample as a total of twenty four (24) insurance firms listed comprises the sample of this study. However, filtering technique was further used to remove firms with negative asset and firms that failed to report their financial statement during the studied period were dropped. Thus, two insurance firms were affected with these criteria which eventually reduced the sample to 22 insurance firms. The research included use of both primary and secondary data. Secondary data was drawn on annual financial statements and industry reports from listed insurance companies as well as the insurance regulatory authority from 2012 to 2022. Focusing on the effectiveness and influence of risk-based supervision on the financial performance of insurance companies in Nigeria, the primary data collection process used questionnaires as interview guides with both structured and semi-structured questions depending on the study's objectives. Since it is sufficiently long to allow for some degree of independence, the 11-year timeframe is selected.

Model Specification

This study adapted the model of Ng'ang'a (2014), the model functional form is given as;

$$ROA = (RBS, RMGT, RBC, FSIZE, FAGE) - \dots \dots \dots (1)$$

The econometric form of the model above is stated as;

$$ROA_t = \beta_0 + \beta_1 RBS_{i,t} + \beta_2 RMGT_{i,t} + \beta_3 RBC_{i,t} + \beta_4 FSIZE_{i,t} + \beta_5 FAGE_{i,t} + U_t \quad (2)$$

Where:

ROA = Return on asset

RBS = Risk based supervision

RMGT = Risk management

RBC = Risk Base Capacity

FSIZE = Earnings per share

FAGE = Firm age

U_t = Error term.

Firm size and Age are controlled for in this model because they are important determinants of firm performance.

Data Analyses Method

In order to confirm the validity of the data gathered through questionnaires, the data was edited and evaluated for accuracy, consistency, and completeness. The descriptive statistics correlation analysis and the panel fixed and random effect are used to estimate the collected data. Variables properties are summarized using the descriptive statistics. Correlation analysis was used to determine the direction and degree of the association between the variables taken into account in the model. This technique also checks the presence or absence of multicollinearity in the model. The cause and effect relationship was determined using the panel regression of fixed and random effect. The Hausman test is carried out on the random effect result to choose between the fixed and random effect model.

Table 1: Operationalization of Variables

| Variables | Measurement | Source | A priori sign |
|------------------|--|--------------|---------------|
| Firm Performance | Return on asset (ROA), calculated as net income after taxes divided by | Malik (2011) | |

| | | | |
|------------------------|--|----------------------------|---|
| | total assets, serves as a stand-in for firm performance. | | |
| Risk based supervision | The sum of Tier 1 and Tier 2 capital (which includes reserves, retained earnings, and other forms of capital) divided by the bank's risk-weighted assets. | Ng'ang'a (2014) | + |
| Risk management | Net profits (which represent the reward) divide by the cost of the investment's maximum risk. | Ahmed et al. (2011) | + |
| Risk Base Capacity | Proxied by the capital ratio adjusted for risk. The computation involves dividing the total adjusted capital of a financial institution by its risk-weighted assets (RWA). | Ahmed et al. (2011) | – |
| Firm Size | The natural log of a company's total assets is used to calculate its size. | Abater (2012) | + |
| Firm Age | Cumulative number of years after firm's incorporation | Westhead and Storey (1994) | + |

Source: Researcher's Compilations (2024).

4. DATA PRESENTATION AND ANALYSIS

Table 2: Summary Statistics

| | Mean | Median | Max | Min | Std. Dev. | Skewness | Kurtosis | J-Bera | Prob |
|--|------|--------|-----|-----|--------------|----------|----------|--------|------|
|--|------|--------|-----|-----|--------------|----------|----------|--------|------|

| | | | | | | | | | |
|-------|----------|------|---------|--------|----------|----------|----------|----------|------|
| ROA | -0.01967 | 0.03 | 30.15 | -33.55 | 2.926736 | -1.71953 | 120.33 | 137207.4 | 0.00 |
| FSIZE | 7.137029 | 7.08 | 8.39 | 6.23 | 0.358767 | 0.37577 | 3.738045 | 11.049 | 0.01 |
| RBC | 46.27038 | 5.33 | 1566.62 | 0.13 | 159.3987 | 5.54328 | 41.74519 | 16173.34 | 0.00 |
| RMGT | 0.816987 | 0.49 | 14.88 | 0.08 | 1.523499 | 5.999269 | 44.7887 | 18823.85 | 0.00 |
| RBS | 0.452343 | 0.5 | 2.42 | 0.16 | 0.205975 | 4.397372 | 39.39174 | 13958.66 | 0.00 |
| FAGE | 41.07531 | 40 | 99 | 15 | 17.88463 | 1.043157 | 4.299425 | 60.16035 | 0.00 |

Source: Own Computation Using E-views 9.0 (2024)

The negative mean value of ROA in Table 2 indicates that the average revenue earned by insurance companies with their assets in Nigeria is on the lower end. According to the matching median values, 50% of insurance companies have ROAs that are equal to or less than 0.03, while the other 50% of the selected insurance companies have ROAs that are equal to or higher than 0.03. The remaining variables (FSIZE, RBC, RMGT, RBS, and FAGE) had positive average values during the course of the time. Their median values are positive and high. The difference between the least and greatest values is substantial. Kurtosis and Skewness values are taken into account by J-Bera statistics while computing its results, which reveals that the complete set of variables is not normally distributed because their associated probability values are significant at the 5% level.

Table 3: Correlation Matrix

| | ROA | RBC | RMGT | RBS | FSIZE | FAGE |
|-----|----------|----------|-----------|----------|----------|----------|
| ROA | 1.000000 | 0.004188 | -0.009586 | 0.003483 | 0.019491 | 0.009231 |

| | | | | | | |
|-------|-----------|-----------|-----------|-----------|-----------|-----------|
| RBC | 0.004188 | 1.000000 | -0.072745 | -0.054092 | -0.099523 | -0.122566 |
| RMGT | -0.009586 | -0.072745 | 1.000000 | 0.016065 | -0.003533 | 0.046164 |
| RBS | 0.003483 | -0.054092 | 0.016065 | 1.000000 | 0.104703 | 0.017243 |
| FSIZE | 0.019491 | -0.099523 | -0.003533 | 0.104703 | 1.000000 | 0.127571 |
| FAGE | 0.009231 | -0.122566 | 0.046164 | 0.017243 | 0.127571 | 1.000000 |

Source: Own Computation Using E-views 9.0 (2024)

Regarding the direction and degree of the association between the explanatory factors and firm performances (ROA) in table 3, Only RMGT have a very weak and insignificant negative association with ROA. Other variables have a very weak and insignificant positive association with ROA respectively. This implies that increase in these variables increases firm performance insignificantly. And increase in RMGT insignificantly reduces ROA. Also, there is absence of multi-colinearity among the variables since no correlation coefficient among the independent variables is > 0.80 .

Table 4: Hausman Test Result

| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob. |
|----------------------|-------------------|--------------|--------|
| Cross-section random | 0.341000 | 5 | 0.0000 |

Source: Own Computation Using E-views 9.0 (2024)

Table 4's outcome serves as a benchmark for choosing the optimal model from the FE and RE models in Table 5. This suggests that the individual unobserved heterogeneity is uncorrelated with the independent variables is significant enough to compromise the model's predictive ability, since the Chi-Square statistics of 0.34 are significant at the 5% level. Thus, the individual specific effect is correlated with the independent variables and the Fixed Effect (FE) model is preferred in this study.

Table 5: Panel Regression Result

| | Fixed Effect (FE) | Random Effect (RE) |
|--|-------------------|--------------------|
|--|-------------------|--------------------|

| Dependent Variable = | ROA | | | ROA | | |
|---|-------------|-------------|--------|-------------|-------------|--------|
| Variable | Coefficient | t-Statistic | Prob. | Coefficient | t-Statistic | Prob. |
| C | -0.25143 | -1.85748 | 0.0646 | -1.1756 | -3.55828 | 0.0005 |
| RBC | -9.31E-06 | -0.35531 | 0.7227 | 0.000119* | 2.458201 | 0.0147 |
| RMGT | 0.005855** | 4.934749 | 0.051 | -0.01815 | -1.41293 | 0.159 |
| RBS | 0.00722** | -3.45478 | 0.0497 | 0.026558 | 0.766631 | 0.4441 |
| FSIZE | 0.03543** | 2.68087 | 0.0443 | 0.154037* | 3.724087 | 0.0002 |
| FAGE | -0.00054 | -0.93682 | 0.3499 | 0.001312 | 1.037078 | 0.3008 |
| | | | | | | |
| R-squared | 0.570958 | | | | 0.000566 | |
| Adjusted R-squared | 0.553811 | | | | 0.02088 | |
| F-statistic | 4.80848 | | | | 0.026399 | |
| Prob(F-statistic) | 0.001 | | | | 0.999674 | |
| | | | | | | |
| * & ** = Significant at 1% & 5% Level of Significance | | | | | | |

Source: Own Computation Using E-views 9.0 (2024)

The FE result in table 5 shows that 57% of total systematic changes in ROA are explained by the entire variables taken together after adjusted for degree of freedom as indicated by the adjusted coefficient of determination value of 0.57 approximately. For FE model, only RBC and FAGE didn't pass their significant at 5% level because their corresponding probability value > 0.05. This implies RMGT, RBS and FSIZE contributed more to ROA of listed insurance firms during the studied period. There is significant relationship between all the explanatory variables taken together and ROA as indicated by the significant F-statistics value of 4.80 (0.001). The effect of the explanatory variables on ROA is quite mixed and different. Some have a significant positive impact while others exhibit insignificant negative impact on performance.

Discussion of Findings and Policy Implication

In the FE model, the effect of explanatory variables on firm performance (ROA) varies in different magnitude. The effect of RBC on ROA is negative and insignificant. This implies that a unit increase in insurance firms risk-based capacity will result to 9.3% insignificant decrease in the financial performance of insurance firms. This also buttresses a weak policy implementation on the risk based capacity by top level management of these firms. Their policies in this direction have not significantly achieved the desired objectives. Risk management (RMGT) coefficient is positive and significant at 5% level. This shows that a unit increase in RMGT will significantly increase ROA by 0.05%. Similarly, risk-based strategy (RBS) has a significant direct positive impact on ROA during the studied year. This indicates that a unit increase in RBS will significantly increase ROA by 0.07%. This findings conform to that of Ademola and Okeowo (2020), Adegbeni and Adeolu (2018), Uzoigwe and Njoku (2017) whom reported that the regulatory authorities can improve risk-based supervision frameworks and guarantee the long-term sustainability and viability of non-life insurers in Nigeria by utilizing these findings. Firm Age (FAGE) has mixed insignificant inverse effect on ROA. A unit increase in FAGE will cause ROA to reduce by 0.005% insignificantly the insignificant variables cannot be used for policy formulation.

FSZE has a positive coefficient and it is significant at 5% level of significance. This implies that a unit increase in FSZE will significantly increase ROA by 0.04 (4%) in the long run. Policy truce on the company's expansion is in the right direction. Contrarily, the controlled variable of FAGE has insignificant and inverse influence on ROA. This buttress that a unit increases in FAGE reduces ROA with 0.01% insignificantly.

5. CONCLUSION AND RECOMMENDATIONS

The performance of listed non-life companies in Nigeria from 2012 to 2022 was studied in relation to firm-specific characteristics. Establishing the impact of risk-based supervision implementation on the financial performance of Nigerian insurance businesses was the study's main goal. The study includes risk management, risk-based supervision standards, and risk-based supervision capability in its discussion of risk-based supervision. Descriptive statistics and correlation analysis were used in this study as a first test to characterize the particular phenomenon in terms of current trends, occurrences, and relationships between various components at the moment. The fixed and random effect panel regression methodology was used.

This study finds that risk management and risk-based strategy are important factors that influence the performance of insurance companies in Nigeria based on the data presented above. In other words, risk management has a significant impact on financial performance, and management has the responsibility to guarantee compliance when implementing risk-based oversight. The study also concludes that in order to attain efficiency, accuracy, completeness, timeliness, and clarity, management should make sure that all employees receive training and understand the benefits of a risk-based strategy as well as how to modify their everyday operations. This is due to the fact that improved personnel capacity will have a beneficial impact on financial performance. From the findings of the study, the following recommendations are made:

Enhancing risk-based capacity and adopting better risk management practices can improve risk-based supervision and help insurance businesses in Nigeria perform financially.

In order to effectively manage and improve the operations of the company and its financial performance, the management of the insurance companies in Nigeria should place a high priority on management and staff understanding of risk-based supervision, risk assessment in the various departments of the company, company environment in risk assessment, management involvement in the risk evaluation process, and identification of changes. The management of insurance companies in Nigeria ought to take responsibility for providing risk-based annual plans, employee training, sufficient resources for risk assessment, and timely submission of returns and required documentation to the insurance regulatory body—all of which enhance the efficiency of the business.

Management should also create and maintain enough quality professionals in order to ensure the quality of work, professional abilities, a willingness to embrace change, and other competences required to carry out specific tasks.

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