EXPLORING THE NEXUS BETWEEN CLAIMS MANAGEMENT AND CAPITAL ADEQUACY OF SELECTED NON-LIFE INSURANCE COMPANIES IN NIGERIA

Sewhenu Francis Dansu[1]
(francis.dansu@lasu.edu.ng +2348029506678)
Temidayo Jerry Olubusade[2]
(temidayo.olubusade@lasu.edu.ng +2347039093727)
(Corresponding Author)
Olufemi Adebowale Abass[3];
(olufemi.abass@lasu.edu.ng; +2348023916630)
1,2,3 Department of Insurance, Faculty of Management Sciences,
Lagos State University

ABSTRACT

The study investigated the relationship between claims management and capital adequacy of non-life insurance firms in Nigeria. The study employed expost facto research design. The population of the study comprises of forty-nine (49) non-life insurance companies in Nigeria out of which ten (10) insurance firms were selected based on market share. The hypotheses of the study were analysed with the aid of simple and multiple regression analysis. The first finding of the study revealed that loss ratio significantly but negatively affects capital adequacy. Also, the second finding revealed that claims reserves significantly and positively affect capital adequacy. In addition, the third finding showed that loss ratio and claims reserves jointly have a significant effect on capital adequacy. It was concluded that claims reserve offer more beneficial effect on capital adequacy when compared to loss ratio. It was recommended that Non-life insurance firms in Nigeria should employ data analytical tool to study past losses and predict future trend. This will assist the firms in predicting loss ratio and give them a cue on how to make adequate reserve.

Key Words: *Claims Reserve, Loss Ratio, Over-reserving, Under-reserving, Risk-Based Capital and Rule Based-Capital*

1.1 INTRODUCTION

In the developing and developed nations of the world, insurance plays a vital role in ensuring that risks of economic agents are financed optimally. This duty places a strong obligation on insurance firms who ensure that entities are restored to the position they were, before the occurrence of an unfortunate incident (Falade & Oyedokun, 2022). Therefore, fulfilling its commitments to policyholders through effective and efficient claims management and capital adequacy continues to be a crucial factor in determining the stability and resilience of insurance companies. This view has also been shared by National Insurance Commission (NAICOM) on the need for insurance firms to maintain a minimum capital at every point in time (Abass & Olubusade, 2023). The major reason for NAICOM's consideration dwells on the fact that capital adequacy determines the

amount of funds available to insurance firms to meet their claims obligations and other expectations of key stakeholders (NAICOM, 2024).

If claims paid out goes beyond the amount that is calculated by actuaries, there will be a major problem for an insurance firm since the insurance will be paying out a huge sum that is planned and reserved for. Thus, life insurance firm needs to carefully estimate the amount of claims to be paid as well as the provision of adequate reserve to back it up. Without having the required amount of capital, an insurance firm may be prone to the risk of insolvency and compliance issues, thereby creating a major problem for the insuring public who has policies with the insurance firm.

It is on this basis that the NAICOM ruled that insurance operators in Nigeria (Life Insurance Firms, Non-Life Insurance Firms and Reinsurance Firms) maintain a minimum capital of N8 billion, N10 billion and N20 billion respectively. This is based on the provisions of the Insurance Act 2003 which has now been repealed by the Nigerian Insurance Industry Reform Act (NIIRA) 2025. The NIIRA 2025 emphasizes more on the risk based capital as opposed to the rule based capital requirement of the Insurance Act 2003.

The response of the NAICOM is geared towards settling unresolved claims and to enforce the risk-based capital regulation. The new insurance act (The Nigerian Insurance Industry Reform Act (2025) stipulates that insurance firms in Nigeria must always maintain a capital adequacy ratio of 100%. This is a pointer to the fact NAICOM is very keen about their duty of ensuring that consumers are well protected by ensuring that insurance firms are financially buoyant to pay claims.

Adhering strictly to this regulation is a harbinger of growth, not only for an individual company but for the industry as a whole. This is because availability of capital and claims payment both have direct influence on each other and they determine the extent to which an insurance firm would be financially strengthened to meet the obligations of the insuring public. This will go a long way to improve the image of the insurance industry since insured only feel the benefits of insurance when a loss occurs.

Though, various studies have empirically investigated the relevance of both claims payment and capital adequacy using different insurance sectors as case studies [Ayuba *et al.* (2019); Falade & Oyedokun (2022); Abass and Olubusade (2023); Nwala and Sukana (2023); Oyerinde, 2023] have explored the connection between capital adequacy and financial performance of insurance companies in Nigeria. It however appears that none of this study explores the association between capital adequacy and claims dynamics in the Nigerian insurance industry. This study considers other important claims management factors incorporating as loss ratio and claims reserve jointly, while seeking to fill empirical gap in previous related studies.

Thus, this study aims to examine the extent to which capital adequacy influence technical efficiency of non-life insurance firms in Nigeria. Specifically, this study intends to examine the extent to which incurred claims and claims reserves individually and jointly influence effect on capital adequacy of among non-life insurance firms in Nigeria.

This study is significant because it provides empirical findings which could be used to demonstrate how effective claims management practices could improve an insurance company's capital base and contribute to long-term sustainability and growth of the Nigerian insurance market. Additionally, this study contributes to the body of knowledge on risk management for insurance companies, and could serve to guide regulatory agencies and create strategic policy recommendations designed to increase the resiliency of the insurance sector in Nigeria.

2.0 Literature Review

2.1 Conceptual Review

2.1.1 Claims Management

Claims refer to all actions intended to track the insured's reimbusement, restoration, repayment, or any other remedy for loss or damage, or in relation to fulfilling obligations (Banmore & Adefulu, 2023). Put differently, insurance claim refers to formal request of a policyholder for payment under the terms of an insurance policy made to an insurance company, requesting the insurance company to bear the cost of a loss which has been covered under a policy (Yusuf *et al.,* 2017). Whenever a claim is made, the first thing for an insurance firm to do is to examine the claim to determine its validity and, if accepted, makes the payout to the policyholder (Yusuf *et al.,* 2017). The goal of claims management is broad and encompasses various efforts from the claims department/unit of an insurance firm. One of the responsibilities of the department is to investigate claims and ensure that all reports about a claim are well documented. More importantly, claims management ensures that the claims of policyholders are settled on time while also ensuring that the claims are adequate. This is not to say that the insurance firms should not be wary of costs in settling claims as well as fraudulent acts that may be perpetrated by unscrupulous policyholders. This implies that claims must be investigated and settled optimally (Oyerinde *et al.,* 2025).

2.1.1.1 Loss Ratio

Loss ratio refers to the ratio of incurred claims to earned premium. Loss ratio is a financial metric in the insurance industry which is used to measure the technical performance of insurance firm (Oyerinde *et al.,* 2025). It reveals the connection between underwriting management and claims settlement of an insurer (Oyerinde *et al.,* 2025). This is because; an insurer may tend to pay more claims in the latter part of the insurance policy year due to the acceptance of poor risks. Therefore, poor underwriting often lead to the payment of huge fraction of premium earned as claims to insured (Sutanto *et al.,* 2023).

Hence, high loss ratio/claims ratio may signify that an insurer is committed to the acceptance of claims liability and actual payment of claims to insured. This connotes that a low claims ratio may not always mean that insurance firm is performing well; it may imply that the insurance company is failing to meet its obligations in terms of claims adequacy and timing of claims payment (Yusuf *et al.,* 2017). Despite this, an insurance firm still needs to monitor loss ratio and evaluate actors leading to high or low poor claims ratio while applying various techniques of risk management to manage it

2.1.1.2 Claims Reserve

Claims reserve refers to the reserve that an insurance firm needs to set aside from profit in order to cater for the unknown cost of future claims. The main goal of claims reserve is to determine how should set aside now to cover future claims as a result of previous promises given by an insurer through an insurance contract. Since claims reserves are a crucial component of an insurance company's total financial reserves, they should be as precise as possible (Sutanto *et al.*, 2023). In severe situations, under-reserving stated claims might result in bankruptcy. In a similar vein, financial resources cannot be invested efficiently if they are over-reserved. Thus, in order to optimise operating efficiency, claims reserve should not be adjusted frequently.

To further limit uncertainty in the amount of reserves and, consequently, the insurance company's profit, large and consistent reserving modifications should be minimised. This is because significant reserve strengthening can have an adverse influence on the price of shares and erode shareholder and customer trust (Mekonnen, 2015). As a result, having strong reservation abilities is crucial for insurance.

An essential aspect of a general insurance company's operations is predicting unpaid claims and establishing adequate reserves to cover them (Fröhlich & Weng, 2016). In fact, the reported earnings of insurance firms are based on both the actual claims paid and the anticipated claims that would need to be paid. Therefore, in order to guarantee the company's financial stability and its profit and loss account, a trustworthy estimate of the reserve to be set up to meet claims must be provided.

2.1.2 Capital Adequacy

The amount of capital available in the insurance and the insurer's owners' equity to support the entire amount of capital needed is known as insurance capital adequacy (Falade & Oyedokun, 2022). Theoretically, the higher the percentage of capital an insurer holds, the more financially strong the insurer is to pay its obligations. The capital adequacy ratio (CAR), which is a gauge of a company's financial stability and strength, can be defined as the percentage ratio of its primary capital to its assets (Ajide & Aderemi, 2021).

The appropriate type of capital must be specified by regulatory bodying specifying the amount of capital an insurance firm must hold. The type of capital that is considered appropriate to support an insurer in the event of an unforeseen or extreme event must be specified by the financial regulation and capital management concerns (Ngugi & Afande, 2015). Ngugi and Afande (2015) argues that the degree to which the financing factor represents an all-encompassing and diverse utilization of finances, as well as how readily available it is to absorb losses, should be taken into account by insurance regulators when deciding on the appropriate capital structure (Ngugi & Afande, 2015). When capital instruments do not fully satisfy requirements, the regulatory framework must place restrictions on how many of them can be used to meet capital adequacy and solvency requirements (Ngugi & Afande, 2015).

These rules have been criticized by Harkati et al. 2020. According to the authors, though the regulatory requirements are meant to address a variety of risks that insurance companies face. Technically, the computations impose unduly stringent capital requirements in a number of areas that the benefits of risk diversification are not fully appreciated because the computations do not account for covariance adjustments within risk groups. Additionally, the requirements place undue penalties on affiliated foreign insurers, affiliated investments, and ceded reinsurance and adequate reserving.

2.2 Theoretical Review

In order to guarantee that insurance companies maintain adequate capital in relation to the risks they underwrite, regulators and actuarial scholars developed the Risk-Based Capital (RBC) Theory in the United States in the early 1990s (Cummins & Weiss, 2000; Harrington, 2003). The presumption focuses on the notion that a company's capital needs should match the kind and degree of risks it faces, including credit, market, operational, and underwriting risk (Eze & Odita, 2020). By matching capital reserves with possible losses, RBC theory promotes a more risk-sensitive strategy that avoids insolvency and safeguards policyholders instead of depending on fixed capital requirements.

RBC theory proponents contend that by encouraging prudent risk management techniques, the insurance sector's financial stability and solvency are improved. It encourages insurers to better evaluate their exposure and make well-informed decisions about underwriting, investment, and claims management by quantifying risks and connecting them to capital adequacy (Cummins & Danzon, 1997). In order to lower systemic risks in the insurance industry, RBC also makes regulatory oversight easier and permits early intervention when insurers display high-risk profiles (NAICOM, 2023).

This study is anchored on the risk-based capital theory. The reason for this is hinged on the fact that insurance firms need huge amount of fund to settle claims. Sufficient capital may positively influence how fast an insurance firm responds to claims. In a similar vein, insurers may become insolvent if their capital base is eroded by a high loss ratio or insufficient reserving (Swiss Re, 2019; Akinlo & Apanisile, 2014). The study's use of the RBC framework supports the idea that capital adequacy should be viewed as a dynamic function of risk exposures, particularly claims risk in the non-life segment, rather than as a fixed regulatory requirement. With respect to this study, the theory would be applied in justifying the rationale behind some companies' ability to pay claims than the other giving that other factors affecting claims payment are held constant.

2.3 Empirical Review

Olubusade and Abass (2023) investigated the effect of reinsurance utilization on capital adequacy of non-life insurance companies in Nigeria. Using secondary data obtained from the Nigerian Insurance Digest, the study used a descriptive research design. All fifty-six (56) non-life insurance companies in

Nigeria were included in the study population. Twenty were chosen using the stratified sampling technique. Over 70% of the industry's market share was held by these chosen businesses, or market leaders. The study used financial leverage and return on asset as measures of capital adequacy, and reinsurance dependence and reinsurance transferred ratio as measures of reinsurance usage. The study found that the use of reinsurance had a major combined effect on the financial leverage and return on assets of Nigerian non-life insurance companies. In this study, it was opined that insurance firms should give serious cognizance to the adoption of re-insurance as a means of risk financing.

Sutanto *et al.* (2023) examined the impact of the insurance industry's retention ratio, profitability, underwriting risk, claim expenses, and company size on the industry's solvency. The goal of this study is to assist prospective investors in selecting the best insurance provider. This study used a quantitative descriptive research design. Secondary data from the insurance industry covering the years 2015–2020 served as the sample for this study. Tolerance and VIF tests, Kolmogorov-Smirnov tests, multivariate cointegration tests, SRESID and ZPRED estimation, t-statistical tests, Fstatistical tests, coefficient of determination (R2), and Pearson Correlation Product Moment are among the analysis techniques employed in this study using SPSS. The findings of this study pointed out that while retention ratio has no discernible impact on the solvency of the insurance sector, claim expense, underwriting risk, ROA, and firm size do. The analysis reviewed in the study revealed that the strength of the influence of the independent variable on the dependent variable is 83.4%, it means that the model is strong enough to explain how solvency of the concerned firms are influenced. The other 16.6% can be described by other variables including cost of claims, risk retained, and insurance risks.

Oyerinde *et al.* (2025) examined the relationship between capital adequacy and claims settlement within the Nigerian insurance sector. Using a longitudinal type of design for research, the study analyzed 15 years of data (2007–2021) from audited financial reports of selected insurance companies sourced from the Nigerian Stock Exchange Database. Capital adequacy was measured by the Shareholders' Fund, while claims settlement is assessed using the Claim Ratio. The findings revealed that effective management of capital adequacy significantly enhances an insurer's ability to settle claims promptly.

Nwala and Sukana (2023) investigated how Nigerian insurance companies' financial performance was impacted by capital adequacy regulations. The research design used in the study was ex post facto. All 24 insurance businesses registered on the Nigerian Exchange (NGX) between 2013 and 2022 made up the study's population. Panel multiple regression was used to assess secondary data that was taken from the yearly financial reports and accounts of the fifteen insurance companies that were chosen. The study used random effect regression based on the Hausman specification test results, and it found that tier 1 capital, or core capital, significantly improves the financial performance of Nigerian listed insurance companies, while tier 2 capital has a negligible negative impact on ROA. Upon the result gotten, it was opined that increasing capital adequacy regulations would improve insurance companies' financial efficiency which is hinged upon the ration of the firms’ assets to profit.

Afande and Ngugi (2015) studied how insurance firms in Kenya respond to the benchmark set by regulators with respect to solvency margin. The study's respondents were the CEOs of each of these firms, who are in charge of determining the strategic direction of their respective organisations. The study utilized a questionnaire as a primary data source to gather data for the purpose of the study. Additionally, in accordance with an interview schedule, in-person interviews were employed. The study mainly employed simple analytical tools such averages to describe the nature of responses gathered from the respondents. In the study, findings can help to infer that with the rise in the benchmark for solvency for the different types of insurance companies, the lowest solvency amounts were still significantly lower than what was anticipated, with higher numbers being recommended.

3.0 METHODOLOGY

3.1 Research Design

The study adopted expost facto research design. The ex post facto design is selected because the study has to do with collection of data from across large population over a number of years.

3.2 Population

The population of the study comprises of all non-life insurance companies in Nigeria. The total number of non-life insurance companies in Nigeria is currently forty-nine (49) (Nigerian Insurance Digest, 2024).

3.3 Sample Size and Sampling Technique

The sample size of the study is ten (10) non-life insurance firms in Nigeria. The researcher employed judgmental sampling to selected ten (10) non-life insurance firms based on market share.

3.4 Source and Method of Data Collection

Secondary data will be best used for this study. These data will be obtained from the annual Nigerian Insurers Association (NIA) digest of individual insurance companies as well as the financial statement of each of the companies engaged in this study.

3.5 Method of Data Analysis

The data gleaned for the purpose of this study will be analyzed with the aid of E-VIEWS. The statistical tool that will be employed in testing the study hypotheses is multiple regression analysis.

3.6 Model Specification

The model specification is a description of the mathematical relationship between dependent variable and the independent variable. The model used in the study is presented below:

Capital Adequacy = f (Claims Management)

$$CA_{it} = f(\ LR_{it}\ CR_{it}) \qquad (3.1)$$

Where:
CA= Capital Adequacy
LR=Loss Ratio
CR= Claims Reserves

4.0 Result Presentation and Discussion of Findings

4.3 Model Estimation and Results

Following the study's empirical structure, this study employed the linear panel data estimators such as common effect (CE) estimator variant, with panel structure of Ten selected non-Life Insurance Companies (N = 10) for a period of 12 years (T = 12) ranging inclusively between 2012 and 2023. Meanwhile, prior to the model estimation, endogeneity test was conducted to ascertain the presence or otherwise of any endogeneity in the models under consideration. Table 4.3 presents the endogeneity test result for models.

Table 4.3-: Endogeneity Test Results

Sample Size: 10 Non-Life Insurance firms in Nigeria

Model	**H_0**	**Durbin Chi2**	***p*-value**	**Wald Test F-stat.**	***p*-value**
SM	Exogenous	1.737300	0.0000	56.41977	0.0000

Source: *Research's computation (2025)*

The results of the endogeneity tests, using the Durbin Chi-square and Wald F-statistic, indicate the absence of endogeneity in the model. This suggests that the policy variables are not affected by omitted variables, measurement errors, or simultaneity bias, and can therefore be considered inherently exogenous.

In examining the relationship between the joint effect of loss ratio and claims reserves on capital adequacy of among non-life insurance firms in Nigeria, the F-statistic value (56.41977, p = 0.0000) indicates that the fixed effects estimator is more appropriate than the common effects (CE) estimator.

Model Estimation:

The estimation of the variables in the model, with their coefficients and strength is presented in the model below:

Table 4.4-: Estimated Panel Regression coefficients

Sample Structure: *N* = 10 Non-Life Insurance Firms

Co-efficient Estimates	Response Variable CAR
ECT_{t-1}	-955.4981 (0.0000)
Regression Estimates	
Loss Ratio	-91.81276 (0.0024)
Claims Ratio	68.21941 (0.0000)
Model Diagnostics	
Overall Test	
F-Stat.	73.96781*** (0.0000)
Normality Test	
Durbin-Watson stat	1.737300 1.5>DW < 2.5

Source: *Researcher's computation (2025).*

The symbol ***, ** *&* * *represents statistical significance at 1%, 5% and 10%.* It should be noted that, values in parentheses are *p-values*.

The estimated regression model is:

$$CAR = \beta_0 + \beta_1 LC_{it} + \beta_2\, CR_{it} + \boldsymbol{\mu}_{it} \qquad (3.2)$$

The panel least squares regression analysis provides key insights into the determinants of Capital Adequacy Ratio (CAR).

4.4 Test of Hypothesis

H_0: Loss Ratio does not have a significant influence on Capital Adequacy of non-life insurance companies in Nigeria.

Coefficient (β) = -91.81276, p = 0.0024 (< 0.05).

Based on the results in Table 4.4 above it shows that there is a negative and statistically significant coefficient indicates that higher Loss Ratios are associated with lower Capital Adequacy Ratios. Thus, the null hypothesis that states that Loss Ratio does not have a significant influence on Capital Adequacy of non-life insurance companies in Nigeria is rejected. Conclusively, Loss Ratio significantly but negatively affects capital adequacy.

H_0: Claims Reserves do not have a significant influence on Capital Adequacy of non-life insurance companies in Nigeria.

Coefficient (β) = 68.21941, p = 0.0000 (< 0.05).

Based on the results in Table 4.4 above it shows that there is a positive and statistically significant coefficient shows that higher Claims Reserves are linked with higher Capital Adequacy Ratios. Therefore, the null hypothesis that states that Claims Reserves do not have a significant influence on Capital Adequacy of non-life insurance companies in Nigeria is rejected. Claims Reserves significantly and positively affect capital adequacy.

H_0: Loss Ratio and Claims Reserves jointly do not have a significant influence on Capital Adequacy of non-life insurance companies in Nigeria.

Overall F-statistic = 73.96781, p = 0.0000 (< 0.01).

Looking at the joint effect, the very high and significant F-statistic indicates that, taken together, the explanatory variables (LR and CR) significantly explain variations in CAR. Hence, the null hypothesis is rejected. Loss Ratio and Claims Reserves jointly have a significant effect on capital adequacy.

Model Diagnostics

The negative and significant ECT suggests that deviations from long-run equilibrium are corrected in subsequent periods. In other words, if capital adequacy temporarily diverges from its equilibrium level due to shocks, it adjusts back over time. Durbin-Watson Statistic (DW = 1.7373), since the DW statistic lies between 1.5 and 2.5, there is no evidence of serious autocorrelation in the model residuals. This indicates the regression results are reliable. The regression results highlight that claims management efficiency (LR) and prudent reserving (CR) are critical to maintaining adequate capital levels. High loss ratios erode capital strength, while strong claims reserves reinforce it. Together, these findings underscore the importance of sound underwriting and risk management practices in sustaining the solvency and profitability of non-life insurance firms in Nigeria.

Residual Cross-Section Dependence Test

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	162.7909	45	0.0000
Pesaran scaled LM	11.36216		0.0000
Pesaran CD	0.616174		0.5378

The residual cross-section dependence test was conducted to determine whether the error terms across the panel of 10 non-life insurance firms in Nigeria are correlated. The results reveal that there is evidence of cross-sectional dependence among the firms. The Breusch-Pagan LM statistic of 162.7909 with a probability value of 0.0000 indicates that the null hypothesis of no cross-sectional dependence is rejected. This shows that shocks or changes affecting one firm are likely to spill over to others in the sector. Similarly, the Pesaran Scaled LM statistic of 11.36216 with a probability of 0.0000 also confirms the presence of cross-sectional dependence, reinforcing that the correlation across firms is systematic rather than random.

However, the Pesaran CD statistic of 0.616174 with a probability of 0.5378 fails to reject the null hypothesis, suggesting no significant cross-sectional dependence. This inconsistency may be attributed to the test's sensitivity to small sample sizes since the study involves only 10 firms over a 10-year period. Conclusively, the evidence from the Breusch-Pagan LM and Pesaran Scaled LM tests suggests that there is cross-sectional dependence in the panel dataset. This implies that the financial performance and risk management indicators of non-life insurance firms in Nigeria are interconnected. External shocks such as regulatory changes, economic downturns, or large-scale claims events are therefore likely to impact multiple firms simultaneously.

4.5 Discussion of Findings

The first finding reveals that loss ratio has negative and statistically significant effect on Capital Adequacy Ratios. This implies that insurers have been spending a larger share of premiums on claims making their capital adequacy declines since profitability and retained earnings shrink. This implies that, at the long run, an insurer may not have sufficient capital to meet the requirements of the National Insurance Commission if loss ratio is not properly managed. A high loss ratio, could mean that insurance firms are committed to paying claims. This is a good herald of sound service quality on the path of the insurer. However, it may dwindle the financial result of the insurer at the long run when a huge portion of revenue are expended on claims thereby affecting the capital base of the firms in question.

Also, the second finding revealed that claims reserve has positive and statistically significant effect on Capital Adequacy Ratios. This suggests that insurers who set aside sufficient reserves to cover future claims demonstrate stronger capital positions, reflecting prudent risk management. This result could have two implications; the first implication is that making too much reserves can hit the capital base of insurance firms rigorously leading to the challenge of too little capital. In a similar vein, making optimal reserve can help an insurance firm ameliorate challenges that are associated with wide fluctuations in claims experience, thereby influence protection of insurance firms' capital base. The result of this study aligns with the second point of view that speculates that optimal reserve protects capital of firms.

More importantly, the result of the third hypothesis revealed that loss ratio and claims reserve have positive and joint significant effect on capital adequacy. This implies that both the efficiency of claims management (LR) and the capital adequacy of reserves (CR) are key determinants of capital adequacy in the Nigerian non-life insurance sector. Both loss ratio management and reserve management are strategies that can concomitantly influence capital adequacy of insurance firms. The findings of this study align with those of Oyerinde *et al.* (2025) who found that Capital adequacy had positive significant influence on claims settlement management in listed insurance companies in Nigeria. In addition, the study's finding also resonates with those of Nwala and Sukana (2023) who found that capital adequacy regulation has significant effect on financial performance of insurance firms in Nigeria.

5.0 Conclusion

The findings of the study suggest that the loss ratio of the firms under consideration is exerting serious pressure on the funds available for insurers to meet their capital requirement. This is because a huge fraction of earned premium was frequently paid out as claims. However, claims reserves that would be ordinarily construed as a diminution of capital base appeared to be a support to it in this study. This implies that claims reserve offers more beneficial effect on capital adequacy when compared to loss ratio. However, when examined together, both has the tendency to improve capital adequacy is properly managed. Considering the results, the insurance firms in question may need to strike a good balance between satisfying the claims needs of clients and improving their financial results. This will help achieve the long-term objectives of the firms and ensure that all stakeholders' needs are satisfied concomitantly.

5.1 Recommendations

The study presents the following results based on the findings of the study:

- Non-life insurance firms in Nigeria should employ data analytical tool to study past losses and predict future trend. This will assist the firms in predicting loss ratio and give them a cue on how to make adequate reserve.

- Non-life insurance firms in Nigeria should ensure that claims handling expenses are minmised as much as possible in order to reduce loss ratio.

REFERENCES

Abass, O.A. & Olubusade, T.J. (2023). Effects of Reinsurance Utilisation on the Capital Adequacy of Non-life Insurance Companies in Nigeria. Acta Universitatis Danubius. *19*(2), 116-125, 19(2)

Ajide, K. B., & Aderemi, A. A. (2021). Capital structure and efficiency of insurance companies in Nigeria. *International Journal of Finance and Banking Research, 7*(1), 1–9. https://doi.org/10.11648/j.ijfbr.20210701.11

Ayuba, F., Akinmoladun, O. O., & Olawale, A. I. (2019). Capital adequacy and financial performance of insurance companies in Nigeria. *Journal of Financial Studies, 18*(3), 112–125.

Banmore, O. O., & Adefulu, A. D. (2023). Claims management practices and competitive advantage of listed insurance companies in Nigeria. *International Journal of Innovative Research in Social Sciences and Strategic Management Techniques, 10*(1), 1–15.

Central Bank of Nigeria (CBN). (2013). Risk-based capital. Abuja: CBN.

Cummins, J. D., & Danzon, P. M. (1997). Price, financial quality, and capital regulation in the insurance industry: Evidence from U.S. property-liability insurers. *Journal of Financial Intermediation, 6*(1), 3–29. https://doi.org/10.1006/jfin.1997.0235

Eze, C., & Odita, A. (2020). Solvency management and financial performance of insurance firms in Nigeria. *Journal of Economics and Finance, 11*(2), 31–38. https://doi.org/10.9790/5933-1102033138

Falade, O. A., & Oyedokun, F. A. (2022). The effect of risk-based capital on insurance profitability: A study in Nigeria. *Journal of Insurance Studies, 40*(2), 134–149.

Fröhlich, A., & Weng, A. (2016). Parameter uncertainty and reserve risk under Solvency II. arXiv preprint arXiv:1612.03066.

Harkati, R., Alhabshi, S. M., & Kassim, S. (2020). Does capital adequacy ratio influence risk-taking behavior of conventional and Islamic banks differently? Empirical evidence from dual banking system of Malaysia. *Journal of Islamic Accounting and Business Research, 11*(9), 1989–2015.

Koch, T. W., & Macdonald, S. S. (2010). Bank management (7th ed.). Mason, OH: South-Western CENGAGE Learning.

Kochenburger, D., & Salve, P. (2023). Claims management in the insurance industry: Principles and practices. *Insurance Claims Review, 11*(2), 12–25.

Kochenburger, P., & Salve, P. (2023). *An introduction to insurance regulation*. In Research Handbook on International Insurance Law and Regulation, 247– 280. Edward Elgar Publishing.

Lee, J. (2023). Analyses of the operating performance of information service companies based on indicators of financial statements. *Asia Pacific Management Review, 28*(4), 410–419.

Lusmeida, A. S., & Gunawan, A. (2025). Capital adequacy and technological advancements in the insurance industry. *Journal of Insurance Technology, 17*(1), 100–112.

Manzoor, A., Kim, K., Pandey, S. R., Kazmi, S. A., Tran, N. H., Saad, W., & Hong, C. S. (2021). Ruin theory for energy-efficient resource allocation in UAV-assisted cellular networks. *IEEE Transactions on Communications, 69*(6), 3943–3956.

Martinek, L., Arato, M., & Malyusz, M. (2015). Comparison of stochastic claims reserving models in insurance. arXiv preprint arXiv:1501.06155. https://arxiv.org/abs/1501.06155

Mekonnen, Y. (2015). Determinants of capital adequacy of Ethiopian commercial banks. *European Scientific Journal, 11*(25), 315–331.

National Insurance Commission (NAICOM). (2019). Recapitalisation of insurance and reinsurance companies: Circular to all insurance companies. https://naicom.gov.ng

National Insurance Commission (NAICOM). (2021). Insurance market performance report Q4 2020. https://naicom.gov.ng

National Insurance Commission (NAICOM). (2022). Annual report 2021. https://naicom.gov.ng

National Insurance Commission (NAICOM). (2023). Bulletin of the insurance market performance – Q4 2023.

National Insurance Commission (NAICOM). (2024). Bulletin of the insurance market performance – Q1 2024.

Ngugi, S. M., & Afande, F. O. (2015). Adequacy of minimal capital requirements for life insurance companies in Kenya. *Journal of Business and Finance, 3*(2), 55–67.

Nwala, M. N., & Sukana, D. T. (2023). Effect of capital adequacy regulation on the financial performance of insurance firms in Nigeria. *Lagos Journal of Banking, Finance & Economic Issues, 4*(2), 1–15.

Obalola, M. A., Olayemi, O. A., & Solaja, O. M. (2018). Determinants of efficiency of non-life insurance firms in Nigeria: DEA approach. *The Journal of Risk Finance, 19*(3), 235–252. https://doi.org/10.1108/JRF-12-2017-0206

Oyerinde, M. T., Aduloju, S. A., & Fadun, S. O. (2025). Capital adequacy and claims settlement management in listed insurance companies in Nigeria. *International Journal of Entrepreneurship, Management and Social Sciences, 2*(1), 1–15. ISSN 3026-9881

Sutanto, S., Lesmana, I., Sitardja, M., & Biantara, A. (2023). The impact of claim expenses, underwriting risk, profitability, company size and retention ratio on solvency of insurance industry. *Indonesian Journal of Accounting and Governance, 7*(2), 83–96.

Swiss Re Institute. (2022). World insurance: Inflation risks front and centre (Sigma 4/2022). Swiss Re.

Yusuf, T. O., Ajemunigbohun, S. S., & Alli, G. N. (2017). A critical review of insurance claims management: A study of selected insurance companies in Nigeria. *Spoudai: Journal of Economics and Business, 67*(2), 69–84. University of Piraeus. https://spoudai.unipi.gr/index.php/spoudai/article/view/2592