*Lafia Journal of Economics and Management Sciences: Volume 8, Issue 1; 2023*
*ISSN: 2550-732X*
*Published by Department of Economics, Federal University of Lafia, Nigeria*

# Key Financial Ratios and Listed Insurance Companies' Performance in Nigeria

**Najimu Ayinde Nafiu[1] & Philemon Danan Ayuba[2]**
[1]Department of Insurance, School of Management Sciences, Federal Polytechnic Ilaro, Ogun State
[2]Department of Actuarial Science and Insurance, Faculty of Management Sciences, University of Lagos, Akoka, Lagos State
Corresponding Email: nafiunajm@yahoo.com

## Abstract
*The global business for economic operations is prudently agreed by the insurance industry, in which key fiscal proportions are to regularize quoted insurance companies' operations so that total direct income earnings and reinsurers' values would be reasonably negotiated. The research is objectively analyzed independent variables with dependent variable in Nigerian insurance industry. Subsidiary tools generated are employed through financial and accounting reports from five randomly chosen financial institutions for ten (2011-2020) years. Correlation and multivariate ordinary statistics are utilized to analyze the generated tools. The findings reveal the autonomous variables to have shown unimportantly direct and not strong membership to subordinate variation (ROA). In relation to the outcomes, the following recommendations for this study are given below. The key financial ratios parameters on production should effectively and efficiently underwrite insured risk prudently increase the retention values and capacity as well as decrease reinsurance cost transferred. Since insurance is a risk management tool to drive the economy, the utmost decision policies should be exercised to make sound competitiveness among other financial institutions for futuristic reputation to be ascertained. Quoted and general insurance operators should prudently energize their reserves and hedge their funds against catastrophic risks in order to reduce capital flight of insurance funds to counterpart reinsurance companies. The primary insurers' reactiveness should be improved in order to reduce losses and damage to the Nigerian economy.* Lastly, *comparative analysis between insurance and other financial institutions ratios: thier performance in financial industry.*

**Keywords: Financial Ratios, Insurance Companies, Risk Management, Insurance, Performance**
**JEL Classification Codes: G17, G22, G32, G52, L25**

## 1. Introduction

In today global system, developing and developed economies are survived by insurance as a risk management mechanism from strongly

adequacy endowment of insurers' business technical fundamentals and division (Sterling Assurance, 2019; International Association of Insurance Supervisors, [IAIS], 2019). Apparently, prospective and current insured are promised by insurers to be put back to their pre-loss position due to fortuitous damage (Afolabi, 2018). In the words of Marketing and Business Development for underwriters, reinsurers and claims managers by the Technical Department is reasonably energized through insurance customer specified requirements of technical capabilities (Sterling Assurance, 2019). The fiscal markets should effectively and efficiently embrace the operators of financial institutions responsibility in any nation capital, social and mixed enterprise in general (Das, Podpiera & Davies, 2003).

Risk management technique stands to uphold the globally changed economy whereby secondary insurers position any hazard management technique for most insurance companies (Kwon & Wolfrom, 2016). That is, unexpected claims brought direct insurers productivity for reinsurers to uphold the both the management of hazard and property mechanism of primary underwriters (Bressan, 2018). Soya and Adeyemo (2017) opined that both prospective and existing enterprise hazards at a specific moment are managed by direct insurers as fiscal protection mechanisms. Okotha (2017) explained reinsurance practice as the binding agreement between reinsurer and ceding office is to cover and balance authentic loss of damage assumed on partial of total disbursement under the insurable subject matter of the contract.

## 2. Literature Review

Fadun (2013) attributed possibility and fearful expectations on anticipated output inherent in operational and strategic risks. The institutes of finance adopt risk management tool of hazard mechanisms in order to non-directly decrease profitable consequences of accidental occurrence of financial operators. Holistic favorable economic growth had efficiently and effectively improved hazard management as well as the attitudinal minimum of proposed and policyholders. Performance is enterprise and administrative ambition employed to verify the fiscal outcome. In the world industrial village, insured confidence has been built by solvency margin in knowing the level of insurer competitive capacity established. In decision making, the actuaries usually embraced investment and quantitative mechanisms which regulate financial productivity quantification.

The affirmative economic growth and factors have enhanced productivity of insurers under political economy of financial system resolution (Burca & Batrinca, 2014). Enterprises subsistence and proficiency possibility are usually provided by all financial operators,

especially insurers, in which fiscal productivity has served as an imperative technique in any organizational businesses, mostly the insurance industry in Nigeria.

In the words of Ansah-Adu, Andoh and Abor (2012), administrative potency achieved with a firm's potential wealth had manifested and evidenced positively on the performance of the grown and developed economy in general. In a widespread way, performance with loyalty of entrusted participants is indicated successful economy by longevity productivity of insurance brokers, loss adjusters and life insurers in the economies of Nigeria (Onsongo, 2015; Soye & Adeyemo, 2017). In the words of (Soye & Adeyemo, 2017), almost all economic operators have been lifted by the primary insurers' improvement of fiscal productivity. However, financial sustainability of insurance sectors is to examine primary offices' productivity as well as the association between specified reinsurer techniques and productivity in Nigeria.

## 2.1 Conceptual Framework

Patrik (2001) and Swiss Reinsurance (2014) opined that risk funding mechanisms such as reinsurance programs made to reduce primary reinsured economic physical value derivatives on understandably elaborate direct offices' damages on prospective exposures to improve development, competitively core value and competency to the insurance industry. In the words of Bressan (2018); Wehrhahn (2009) and American Institute (n. d.), risk financial managers used reinsurance as a tool to support primary insurers through reinsured premiums to reinsurers as a result of fortuitously hazardous catastrophic risks. Insensible occurrence of outcome decrement should be uplifted the program of secondary insurance to assist primary reinsured in order to attain operational objectives (American Institute, n.d.) with respect to underwriter's reserves increased; financial harmfulness risk security; innovative knowledge exchange and funding innovative commercial enterprise (McNamara & Rejda, 2017).

Peril adventure change tool is a peril change payment on policyholders to use exchange techniques through transfer of consideration cost (Marshall, 2001). The institutes of finance adopt risk management tool of hazard mechanisms in order to non-directly decrease profitable consequences of accidental occurrence of financial operators. Holistic favorable economic growth had efficiently and effectively improved hazard management as well as the attitudinal minimum of proposed and policyholders (Fadun, 2013).

Assessment of operational strategic outcomes from the enterprise's goals and the cedant's management goals are termed as productivity.

Meanwhile, increment competency among consistence's insurers shaped the inherent earnings which propel the bondholders and stockholders due to financial position quality and proposed energetic reliability (Burca & Batrinca, 2014). In the Nigerian risk management industry, fiscal productivity has brought insurance firms as institutes by standing as important speculators to all actors in any enterprises in order to have enterprises attainment of the fittest (Ansah-Adu, Andoh & Abor, 2012). Nevertheless, management potency and attainment with the use of a firm's potential wealth had manifested and evidenced positively performance on economic growth and development as a whole.

## 2.2 Theoretical Review

### 2.2.1 Risk Financial Theory

In most economy, risk minimization and reduction through adequate risk management practices and risk financial techniques has been embraced as responsibility in insurance markets as a result of damages and losses occurrence by existing insures from their fortuitous events**.** Risk diversification reduced aggregate value from confrontational risk pooling which improved longer term planning and allocations of resources, thereby reducing business interruption as result of large catastrophic losses (Organization for Economic Cooperation and Development [OCED], 2018). Retrocession agreement is any cession received by the reinsurer through reinsured with a genuine consideration on promise compensation with the reinsurer's duty to settle reinsured from fixed fund and financial strength.

A contractual business of reinsurance is an agreement where a primary insurer receives commission from premiums paid to a reinsurer in order to decrease specified underwriting costs, expenses and other unpredictable costs (OCED, 2018). The exposures of underwriting activities are shared by reinsured and reinsurers as well as other financial institutions with different financial risk, strategic risk, operational risk (Park & Xie, 2014). In the words of Workie (2018), insurance premium forecast for business risks would be partly retained and transferred the remaining risks to the secondary insurers so that direct insurers can stabilize their retention capacity due to both potential and genuine losses and management of claims (Marijana, Marija & Daniel, 2014)**.**

### 2.2.2 Retention Capacity Theory

In the words of James and Joan (2003), risk assumption by secondary insurers arises as a result of reinsurance contractual transactions, in which reinsurer decisions and purchases are influenced and determined

by the size and value of the insurer's retention capacity through transferred and hedged capacity as supplementary risk financing values. In the words of Cummins, Feng and Weiss (2012); Garven and Lamm-Tennant (2003) opined, reinsurance programs would be requested by ceding companies in order to decrease their burden of fortuitous perils, business risk and other insurable risks. The maintenance of financial solvency margin and fortuitous loss occurrence are managed by reinsurance as a result of compensation values, in which the acceptance of insurable, operational and strategic risks by clients embracing and empowering capital base and capital balance due to reinsurance capacity and programs (Workie, 2018).

The reinsurance program framework has been embraced as the risk management technique in order to bargain of already agreed insurable and operational hazard and perils of primary insurers assumed by secondary insurers as supplementary reinsurance cover (Garven & Tennant, 2003). Non-correlation of losses made reinsurer to accept and manage business risks which are pure and particular risks, in which the law of large numbers would be effectively applicable to fortuitous and predictable losses. The endorsements of reinsurance practices had made insurers to cede part or all of the underwritten premiums paid by prospective and existing insureds to reinsurers so that ceding office's commission would be measured by underwriting income (Garven & Lamm-Tennant, 2003). Based on this, the structural capital resolution with respect to purchasing of reinsurance programs has made primary insurers to encourage capital structure substitution practices (Garven & Lamm-Tennant, 2003).

## 2.3 Empirical Review

Soye, Olumide and Adeyemo (2022) exercised to determine reinsurance as a risk management instrument and its effect on non-life insurance firms' profitability in Nigeria, which adopted ex-post-facto research design with multiple correlation and regression model to analyze the data. The findings have shown that primary insurance's profitability is not only directly insignificant as well as correlation by premium cession ratio (PCR) and ratio of net premium retained but also is indirectly non-significant by reinsurer dependent ceded premium (RDC) and reinsured commission over equity of shareholder (RCES). The study is recommended that insurance firms should give reinsurance usage the utmost priority in their risk management decision making, through hedging and other risk financing mechanisms in order to prevent against residual and catastrophic risks.

Deyganto and Alemu (2019) carried out an investigation of the factors affecting the financial performance of insurance companies

operating in Hawassa city, Ethiopia. The study employed casual research design with mixed research approaches as its ex-post-facto using ordinary least square model. The result showed that underwriting, premium growth, solvency ratio, GDP growth rate, and inflation rate have had significant effects on the financial performance of the insurance companies operating in Hawassa city administration. Also, the study established that the reinsurance dependence, company size and interest rate have no significant effect on the financial performance of the insurance company of Hawassa city in Ethiopia. The study recommends for future research on the impact of government regulation policies and other directives and non-financial determinants of insurance financial performance. Finally, it is also recommended that primary data could be used for collection of data through questionnaire and interview.

Abass and Obalola (2018) examined the impact of reinsurance utilisation on the performance of non-life businesses in the Nigerian insurance companies. The study employed mixed method research design of qualitative and quantitative approaches as exploratory research design and longitudinal descriptive research design respectively. Also, thematic content analysis and logarithmic transformation regression model were respectively adopted by qualitative and quantitative studies. The study findings indicated a statistical significant relationship between reinsurance utilisation and performance of non-life insurance companies in Nigeria. These non-life insurance companies perform relatively poor as a result of total dependence on reinsurance protection as their main risk financing management mechanism's source. However, the qualitative results validated the study findings of the quantitative study which underlined the significance of increased shareholders' fund and improved insurance companies' risk appetite through both financial and non-financial performance of non-life insurance companies in the Nigerian insurance market. It is therefore recommended that non-life insurance companies in Nigeria should develop other risk management mechanisms apart from reinsurance protection and, at the same time, improve their overall financial and non-financial performance.

Bressan (2018) examined the empirical evidence for the effect of reinsurance on solvency, profitability, and taxes of primary insurers, which adopted ex-post-facto research design with descriptive statistics, multiple correlation and regression model to analyze the data. The findings have shown that primary insurers are increasing in the use of reinsurance by exhibiting lower capital ratio. This makes capital and reinsurance to be employed as substituting mechanisms for improving solvency, profitability and taxes. It is evidently recommended that longer time series of data could

be allowed to implement more effective techniques on issues of potential endogeneity.

Aduloju and Ajemunigbohun (2017) asserted to examine the relationship between ceding office gross premium income, underwriting profits and financial stability. The study employed primary and secondary data using descriptive research design as well as purposive sampling technique. The results of the study have shown that reinsurance purchase significantly increases the insurers' premium income, which shows the positively sensitivity of reinsurance utilization on profitability in order to reduce the insolvency risk and improve the retention capacity. Based on the results of this study, it is recommended that reinsurance facilities should be given adequate attention by insurance companies rather than see reinsurance as the cost-centered mechanism.

Soye and Adeyemo (2017) also opined to examine the evaluation of the impact of reinsurance mechanisms on Nigerian insurance companies' sustainability, using ex-post-facto research design, correlation, and linear regression analysis. The findings of the study revealed the net retention ratio, net claim ratio, net commission ratio and ceded reinsurance ratio are correlated with profitability in Nigeria. It is recommended that insurers should put proper reinsurance programs into priority as well as other underwriting documents in order to have optimal retention level and favorable financial performance.

Ibrahim (2016) conducted a study on the determinants of insurance companies' performance in Nigeria. The study findings indicated that the equity capital, gross written premium, liquidity, leverage, and company age were positively significant relationships with insurance companies' performance. While the solvency and tangible assets were negatively significant relationship with insurance companies' performance in Nigeria. Though gross written premiums served as the main determinant of insurance companies' performance, but equity capital had opposed the general view in Nigeria. Likewise, economic factors, technological factors, and environmental factors have a positive relationship with insurance companies' performance in Nigeria.

Lastly, Sing'ombe (2016) asserted to investigate the effects reinsurance arrangements on financial productivity of general insurance companies. The study employed analytical survey and correlation research design techniques through secondary data as well as descriptive and inferential statistics. The results of the study revealed that reinsurance is positively insignificant to financial performance, while retention levels are negatively insignificant to the underwriting profit ratio. However, net claims ratio was negatively significant on underwriting profit ratio, but net

commission ratio had a positive effect on underwriting profit ratio. The study recommends that insurance companies should effectively manage their claim costs and underwriting quality in order to increase their underwriting profits.

## 3. Methodology

The research design employed is quantitatively employed an ex-post facto design to objectively examine viable parameters of study. Also, ten year annual statements of five (5) primary insurers are randomly and numerically chosen (2011-2020). The annual report data will be analyzed from secondary data through multivariate ordinary and correlativity techniques to understand Nigerian insurance companies' key financial ratios (Gross Premium Earnings, Ratio of Net Premium & Ratio of Reinsurance Cost) on performance (Return on Assets).

**Table 1: Specification of Independent and Dependent Variables**

| S/N | Variables | Proxy | Measurement | Variables Specification |
|---|---|---|---|---|
| Yt | Return on Assets | ROA | Net Profit After Tax over Total Assets | Dependent |
| X1t | Gross Premium Earnings | GPE | Gross Income Received | Independent |
| X2t | Ratio of Net Premium | RNR | Net Premium Income over Gross Direct premium | Independent |
| X3t | Ratio of Reinsurance Cost | RRC | Reinsurance Cost over Gross Premium Income | Independent |

Source: Author's Computation, 2023

### 3.1 Model Specification

The multiple regression model is being adopted for this study in order to be used for analysis between dependent and independent variables (Soye, Olumide & Adeyemo, 2022; Soye, Olumide & Adeyemo, 2017; Onsongo, 2015). The dependent variable is return of assets. The measurement of performance stands as the recent profitability measure adapted in various research as a measuring tool for performance (Aduloju & Ajemunigbohun, 2017; Soye, & Adeyemo, 2017; Onsongo, 2015). Also, the independent variables are ratio of net premium and ratio of reinsurance cost that stand as the measures of financial ratios (Aduloju & Ajemunigbohun, 2017; Soye & Adeyemo, 2017).

The model formula is denoted below as:

$$ROA = f(GPE, RNR, RRC) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 1$$

$$ROA = \beta 0 + \beta 1GPE + \beta 2RNR + \beta 3RRC + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 2$$

Where:
ROA = Return on Assets
$B_0$ = Independent parameter
GPE = Gross Premium Earnings
RNR =Ratio of Net Premium
RRC = Ratio Reinsurance Cost
ε = unexplained variable

## 4. Results and Discussions

### 4.1 Correlation Statistics

**Table 2: Correlation Technique**

| | | Return on Assets | Gross Premium Earnings | Ratio of Net Premium | Ratio of Reinsurance Cost |
|---|---|---|---|---|---|
| Return on Assets | Pearson Correlation | 1 | -0.091 | -0.075 | -0.141 |
| | Sig. (2-tailed) | | 0.532 | 0.604 | 0.330 |
| | N | 50 | 50 | 50 | 50 |
| Gross Premium Earnings | Pearson Correlation | -0.091 | 1 | 0.037 | 0.013 |
| | Sig. (2-tailed) | 0.532 | | 0.801 | 0.929 |
| | N | 50 | 50 | 50 | 50 |
| Ratio of Net Premium | Pearson Correlation | -0.075 | 0.037 | 1 | -0.525 |
| | Sig. (2-tailed) | 0.604 | 0.801 | | 0.000 |
| | N | 50 | 50 | 50 | 50 |
| Ratio of Reinsurance cost | Pearson Correlation | -0.141 | 0.013 | -0.525 | 1 |
| | Sig. (2-tailed) | 0.330 | 0.929 | 0.000 | |
| | N | 50 | 50 | 50 | 50 |

Source: Author's Computation, 2023

The results shown in the table 2 above, the proxy of the Nigerian insurers performance (ROA) shows no significantly indirect as well as not strongly related to key financial ratios, in which gross premium earnings shows r= -0.091 and p-value = 0.532. Meanwhile, the ratio of net premium shows r= -0.075 and p-value = 0.604, while the ratio of reinsurance cost shows r= -0.141 with, p= 0.330 individually and a significant level (0.05) is less the p-value.

### 4.2 Multiple Regressions Statistical Model

Multivariate ordinary statistical technique shown below the regression statistics, ANOVA statistics and Regression Coefficients Model computed.

**Table 3: Regression Statistical Model**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | |
|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | Sig. F Change |
| 1 ‘ | 0.238 | 0.057 | -0.005 | 0.03962387 | 0.057 | 0.923 | 0.437 |

Source: Author’s Computation, 2023

The result from table 3 has shown the multivariate ordinary statistical model of three proxies of key financial ratios (GPE, RNP, and RRC) and the proxy of performance (ROA). The determinant of statistical outcome of the variables are R, $R^2$ & Adjusted R, are 0.238, 0.057, and -0.005 respectively. The quoted insurer’ ratios are not strong with R= 0.238, and insignificant (0.437). Though, multivariate ordinary regression results as 0.057 changes in performance (return on assets) are the key financial ratios (GPE, RNP, RRC) explanatory indices as shown by $R^2$. Meanwhile, 94.3% could not be captured as a result of unexplained factors.

Nevertheless, table 3 represents the multivariate regression analysis and indicates a summary of the study where $R^2$ with 0.057 which indicates key financial ratios proxies (GPE, RNP and RRC) have explained the outcome of 5.7% as the parameters on Return on Assets of Nigerian listed primary official enterprises of operators. However, 94.3% could not be captured as a result of unexplained factors, but sampling techniques and readymade data were employed by previous studies, in which Aduloju and Ajemunigbohun (2017); Soye and Adeyemo (2017) asserted that key financial ratios as well as reinsurance mechanisms (Soye and Adeyemo, 2017) were directly significant and insignificant and correlated on financial performance, sustainability (Soye & Adeyemo, 2017) and underwriting profit (Deyganto & Alemu, 2019); Sing’ombe (2016).

F-changed value of 0.187 as its significant value of 0.437 that is greater than 0.05 from the model shown above. This means there is a statistically non-significant relation within ROA by net premium earnings, ratio of net retention and ceded reinsurance ratio. This indicated that all the parameters of the quoted insurance business’s performance were not explained by the financial ratios since their p-value (significance) is greater than 5%. Therefore, the variability is not stimulated by the performance of Nigerian listed insurers companies.

**Table 4: ANOVA Statistics**

| Model | | Sum of Squares | Df | Mean Square | F | Significance |
|---|---|---|---|---|---|---|
| 1 | Regression | 0.004 | 3 | 0.001 | 0.934 | 0.437 |
| | Residual | 0.072 | 46 | 0.002 | | |
| | Total | 0.077 | 49 | | | |

Source: Author's Computation, 2023

Table 4 shows 0.437 as the F-cal. and a critical value of 0.05 with freedom degrees (3, 46). Though, there is no significant due to significance level is less than the P-value of 0.05 <0.437, in which the multivariate ordinary model has statistically indicated non-significant and positively valid

**Table 5: Regression Coefficients Model**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| | Constant | 0.099 | 0.028 | | 3.511 | 0.001 |
| | Gross Premium Earnings | -1.670E-010 | 0.000 | -0.080 | -0.558 | 0.580 |
| | Ratio of Net Premium | -0.033 | 0.028 | -0.201 | -1.191 | 0.240 |
| | Ratio of Reinsurance Cost | -0.064 | 0.044 | -0.245 | -1.455 | 0.152 |

Source: Author's Computation, 2023

The multivariate ordinary model below:

$$ROA = \beta 0 + \beta 1GPE + \beta 2RNP + \beta 3RRC + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 3$$

$$ROA = 0.099 - 0.0000000001670GPE - 0.033RNP - 0.064RRC + 94.3 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 4$$

It is shown in table 5, specified as 0.099. as Y-intercept unconstrained by the GPE, RNR & RRC. The productivity of ROA is negatively insignificant by gross premium earnings (GPE), ratio of net premium and ratio of reinsurance cost with -0.0000000001670, -0.033 and - 0.064 respectively. The multivariate regression establishes how key financial ratios proxies (GPE, RNR and RRC) have impacted on performance proxy (ROA) of Nigerian listed insurance business operators. In the study of Soye *et al.*, (2022); Onsongo (2015) revealed that there was a direct insignificant and correlated association between premium cession ratio and net premium ratio of primary insurance profitability, which is different from the findings of this study. From the multivariate regression model, GPE's coefficient symbol is indirect (negative) which establishes one unit increment of GPE, there is 0.0000000001670 reductions in ROA if and only if there is stability in other factors. That is, one unit of GPE is listed

as direct insurance purchase; the insurers will evidently earn a discount of 0.0000000001670. In reality, these earnings prove how performance will partly depend on gross premium earnings.

The previous researchers and authors revealed in Nigeria using secondary data. For instance, Soye *et al.*, (2022)); Aduloju and Ajemunigbohun (2017) and Soye and Adeyemo (2017) investigated that premium cession ratio, reinsurance capacity and net premium ratio were directly non-significant and correlated with primary insurance profitability and underwriting profit (Sing'ombe 2016). Onsongo (2015) revealed that retention ratio, premium growth showed an indirect association to financial performance. Though Ibrahim (2017), gross premium was directly significant to performance. Some of the previous researchers and authors' studies resulted in different findings of ratio of net premium and ratio of reinsurance cost. Nevertheless, the multivariate ordinary indicated symbols of RNR and RRC are also indirect which infers reduction of ROA would cause one upward of RNR on a Nigerian listed insurer transaction by -0.033.

This key financial ratio is for every unit worth of hazards business on listed insurance firms are subordinating in Nigeria, which they perceive to be a loss of (3.3%) on their performance. This could be due to the high volume of businesses transferred to reinsurers. In view of this reality, the higher the standardized ratios, the smoother will be the surplus experienced by the insurers. Also, an increment in RRC will show a -0.064 outcome decrement in ROA of listed insurance companies in the economy. In addition, the return on assets of a listed insurer would undergo a value of discount up to N64000000, if the insurer earned N1 billion worth of business earnings. This could be due to inadequate underwriting capacity or technicality.

## 5. Conclusion and Recommendations

Results have shown that Nigerian listed primary office productivity is quantitatively non-significant and positively weak in relation to key financial ratios, which suggests null hypotheses acceptance in order to recognize the benefits operators in Nigeria. In other parts of the world, the key financial ratios should be embraced since gross premium earnings, ratio of net premium, ratio of reinsurance cost and sustainability. That is, the apportionment of compensation to be paid by primary insurers would be highly increased high due to oversize possession of risks. If there is adequate underwriting proposal risk and renewal risks, the unqualified incurred claims would be increasingly apportioned. Since the ratio of net premium and reinsurance costs has non-significant and indirect on profit and properties on Nigerian insurers' productivity. This explains how claims

incurred by direct insurers have greater effects on performance due to vast payment of reinsurer costs ceded above the total premium earnings, in which intermediaries, primary insurers, reinsurers, investors, regulators and supervisory authorities as well as policyholders will have to employ the significance of financial ratios as a tool for development of insurance industry. If underwriters were prudently underwritten genuine risks proposed and payment of genuine were not delayed, it may increase prospective and existing insured and reduce capital flight to other parts of the country, which may not effectively and efficiently enhance the productivity of the Nigerian insurance industry.

In relation to the outcomes, the recommendations for the research are given:

i. Consequences for key financial ratios parameters on productivity should effectively and efficiently underwrite insured risks by primary insurers in order to sophisticated and appropriately increase the amount of retention value as well as its capacity and prudently decrease reinsurance cost transferred.

ii. Since Insurance is a risk management tool to drive the economy, the utmost decision policies should be exercised in order to make sound competitiveness among other financial institutions so that futuristic reputation can be ascertained.

iii. Quoted and general operators of insurance should prudently energize their reserves and hedge their funds against catastrophic risks in order to reduce capital flight of insurance funds to counterpart reinsurance companies.

iv. The reactiveness of primary companies should be improved so that inherent losses and damage would be reduced within the Nigerian economy.

v. In future, studies may also focus on comparative analysis of insurance and other financial institutions' ratios; their performance in the financial industry.

## References

Abass, O. A. & Obalola, M. A. (2018). Reinsurance utilisation and performance of non-life business in the Nigerian insurance industry: A mixed methods approach. *The Journal of Risk Management and Insurance*, *22*(2), 18- 30.

Aduloju, S. A. & Ajemunigbohun, S. S. (2017). Reinsurance and performance of the ceding companies: The Nigerian insurance industry experience. *Journal of Economic and Business*, *31*(1), 19-29. https://doi.org/10.1515/eb-2017-0015

Afolabi, T. S. (2018). Effect of claims payments on profitability in the Nigerian insurance industry. *Advances in Social Sciences Research Journal, 5*(4), 94-101.

American Institute (n.d.). *Introduction to reinsurance*. Copyright of American Institute for Chartered Property Casualty Underwriters.

Ansah-Adu, K., Andoh, C. & Abor, J. (2012). Evaluating the cost efficiency of insurance companies in Ghana. *Journal of Risk Finance*, *13*(1), 61-76.

Bernard, C. (2013). *Risk sharing and pricing in the reinsurance market*. In: Handbook of Insurance. Springer New York, pp. 603-626.

Bressan, S. (2018). The impact of reinsurance for insurance companies. *Risk Governance and Control: Financial Market & Institution, 8*(4), 22-29. https://doi.org/10.22495/rgcv8i4p3

Burca, A. M. & Batrinca, G. (2014). *The determinants of financial performance in the Romanian insurance market*. *Faculty of Finance, Insurance, Banking and Stock Exchange*. 23rd IBIMA Conference, Valencia.

Cummins, J. D., Feng, Z. & Weiss, M. A. (2012). *Reinsurance counterparty relationships and firm performance in the U.S. Property-Liability Insurance Industry*.

Das, U. S., Podpiera, R. & Davies, N. (2003). *Insurance and issues in financial soundness. International Monetary Fund*. www.imf.org. ISSN: 9781451856002/1018-5941

Deyganto, K. O. & Alemu, A. A. (2019). Factors affecting financial performance of insurance companies operating in Hawassa City Administration, Ethiopia. *Universal Journal of Accounting and Finance, 7*(1), 1-10.

Fadun, O. S. (2013). Insurance a risk transfer mechanism: An examination of the Nigerian banking industry. School of Management & Business Studies (SMBS), Lagos State Polytechnic, Lagos Nigeria. *IOSR Journal of Business and Management (IOSR-JBM*), *7*(4), 93-101.

Garven, J. & Lamm-Tennant, J. (2003). The demand for reinsurance: Theory and empirical tests. *Insurance and Risk Management, 7*(3), 217–237.

International Association of Insurance Supervisors (2012). *Reinsurance and financial stability. International Association of Insurance Supervisors.* C/o Bank for International Settlements. CH-4002 Basel. Switzerland.

Ibrahim, H. (2016). *Assessment of determinants of insurance companies' performance in Nigeria*. Department of Business Administration,

Faculty of Administration, Ahmadu Bello University, Zaria, Nigeria.

James, R. & Joan, L (2003). The demand for reinsurance: Theory and empirical tests. *Insurance and Risk Management, 7*(3), 217-237.

Kwon, W. J. & Wolfrom, L. (2016). Analytical tools for the insurance market and macro-prudential surveillance. *OECD Journal: Financial Market Trends*, 1, 1-47.

Marshall, C. (2001). *Measuring and managing operational risks in financial institutions: Tools, techniques and other resources.* New York: John Wiley, 2001.

McNamara, M. J. & Rejda G. E. (2017). *Principles of risk management and insurance*. Pearson, 13th Edition, Global Edition.

Marijana, C., Marija, U. & Daniel, K. (2014). Firm specific characteristics and reinsurance - Evidence from Croatian insurance companies. *Economic Thought and Practice, 23*(1), 29-42.

Organization for Economic Cooperation and Development (2018). *National risk assessments: A cross country perspective*. Organization for Economic Co-operation and Development

Okotha, G. S. (2017). *Reinsurance management - DIU 203*. Study Guide, Chartered Insurance Practitioner. Diploma in Insurance, the Insurance Institute of Uganda.

Onsongo, B. J. (2015). *Determinants of financial performance for life Insurance companies in Kenya.* A research project submitted in partial fulfillment of the requirement for the award of the degree of Master of Science in Finance. School of Business, University of Nairobi.

Park, S. C. & Xie, X. (2014). Reinsurance and systemic risk: The impact of reinsurer down grading on property casualty insurers. *Journal of Risk and Insurance, 81*(3), 587–622.

Patrik, G. S. (2001). *Reinsurance*. In Causality Actuarial Society: Foundations of Casualty Actuarial Sciences. 4th ed. Arlington, Virginia: Causality Actuarial Society, 343-484.

Sing'ombe, N. O. (2016). *The effect of reinsurance programmes on financial performance of general insurance companies in Kenya.* A research project submitted in partial fulfillment of the requirement for the award of the degree of Master of Science in Finance. Department of Finance & Accounting, School of Business, University of Nairobi.

Soye, Y. A., Olumide, R. O., & Adeyemo, D. L. (2022). Reinsurance: A risk management instrument for insurance companies' profitability (A case of non-life insurance in Nigeria). *Economic Insights – Trends and Challenges, 11*(74), 21-36.

Soye, Y. A. & Adeyemo, D. L. (2017). Evaluation of impact of reinsurance mechanism on insurance companies sustainability in Nigeria. *International Journal of Research, Innovations and Sustainable Development, 7*(1), 2276-8122.

Sterling Assurance Nigerian Limited Company (2018). *Annual report and account.* 284, Ikorodu Road, Lagos Nigeria.

Swiss Reinsurance (2014). *Basic concepts of reinsurance.* Swiss Re, All Rights Reserved.

Wehrhahn, R. (2009). Introduction to reinsurance. *Primer series on Insurance. Issues 2,* April 2009. The World Bank. © 2008 The International Bank for Reconstruction and Development/the World Bank. 1818 H Street, NW. Washington, DC 20433. Internet: www.worldbank.org/nbfi. E-mail: insurancesector@worldbank.org. www.worldbank.org/nbfI

Workie, T. (2018). *Factors influencing demand for reinsurance in Ethiopian insurance companies.* Department of Accounting and Finance. College of Business and Economics. Addis Ababa University.