Financial Risks and Financial Performance of Insurance Companies in Nigeria

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ABSTRACT

Though, insurance companies serve as a tool to mitigate the effect of loss or damage to both individuals and organisations, they are also exposed to variety of financial risks which could negatively impact their financial performance. This study investigated the impact of financial risks on the Nigerian insurance companies financial performance. Using an ex-post facto research design, data for twelve years period (2012-2023) for 10 insurance companies was extracted from their audited annual reports. Descriptive and inferential analysis were performed on the extracted data using Eviews 9. The result of the fixed effect model estimation revealed that liquidity risks, credit risks and underwriting risks does not significantly affect return on assets. Thus, the study found that financial risks have no significant impact on the financial performance of insurance companies in Nigeria. It was recommended that insurance companies diversify their investment portfolio by investing their idle funds across different industries and that the National Insurance Commission (NAICOM) should ensure adherence to the provision of section 41 and 25 of the Insurance Act of 2003 which deal with the timely payment of insurance premiums to the insurer and the investing of insurance funds.

Keywords: *Financial Risks, Credit Risks, Liquidity Risks, Underwriting Risks, Financial Performance.*

1.0 Introduction

Insurance is crucial for organisations and individuals as it compensates for loss and restore them to their pre-loss status (Menna, 2020). Consequently, one of the fundamental risk management strategies for people, businesses, and government is to acquire insurance to protect against loss. However, insurance companies, just like other businesses are also set up to make profit and increase shareholder wealth, which means that while serving their clients by providing indemnity for losses, they also face certain financial risks that could negatively impact their financial performance (Ibrahim, Terzungwe & Lateef, 2020)

One of the major risks encountered by many companies is financial risks, particularly, companies on the stock market where a company's worth is dependent on market circumstances (Alia & Oudatb, 2020). Specifically, insurers encounter a variety of financial risks when performing its fundamental functions, these includes risks associated in underwriting, pricing, processing claims, and managing reinsurance (Oyedokun & Amafa, 2022). Such risks are frequently interconnected, and if not adequately managed, might endanger the institution's capacity to attain and maintain its profitability (Sisay, 2017).
According to a Ogunsola (2023), financial risk has been identified as one of the major factors that can impede on the actualization of financial objective. And despite the National

Insurance Commission's (NAICOM) effort to monitor and manage the operations of insurance businesses in Nigeria, there are still problems because of the commission's regulatory standards and inadequate control of financial risk.
is risk.

According to Ibrahim et al. (2020), insurance companies such as Baico insurance plc, Crusader insurance plc and Great Nigeria insurance plc have either been acquired, merged or became insolvent between 2008 and 2019. All these insurance companies failed due to their inability to control financial risk and adhere to regulatory requirements. It is therefore important that insurance companies properly identify the financial risks they are exposed to, and the extent of such exposure on their financial performance so as to establish a an effective system of managing such risk.

Few empirical research have examined the connection between financial risks and financial performance of insurance industry in Nigeria, as most research on financial risk have focused on other sectors, particularly the banking sector. However, the few studies have also produced contradictory findings. Thus, this study investigated the impact of financial risk on the financial performance of insurance companies in Nigeria.

2.0 Empirical and Theoretical Review

Empirical Review

Ibrahim et al. (2020) looked at how financial risk affected the financial performance of Nigerian listed insurance businesses between 2009 and 2018. The results of fixed effect regression, using secondary data from 19 listed insurance companies, demonstrated that solvency risk has a positive and substantial impact on ROA, liquidity risk has a negative and minor impact, and credit risk has a negative and large impact on financial performance.
Yohanna, Gonji, Angyak and Kasmwakat. (2020) investigated the financial risk factors that influence the profitability of non-life insurance companies that are listed on the Nigerian Stock Exchange. Using a panel research design, the study found that financial risks had an impact on the profitability of Nigerian non-life insurance companies. The profitability (ROA) of Nigerian non-life insurance businesses was specifically impacted by solvency risk, leverage risk, and reinsurance risk from 2008 to 2018.

Ayeni and Emeka (2021) looked into how financial risks affected Nigerian manufacturing companies' performance. A fixed effect regression model was used to evaluate data from manufacturing companies' annual reports that were listed on the Nigerian Stock Exchange between 2010 and 2020. It was found that while firm age has a positive and negligible impact on return on assets, leverage risk, liquidity risk, and firm size have negative and significant effects.
Theoretical Review

Asymmetric Information Theory

The concept of asymmetric information was propounded by Akerlof in 1970 in his famous paper titled: The Market for "Lemons": Quality Uncertainty and the Market Mechanism. It is a situation where one party has no access to information about a certain transaction compared to other parties. Asymmetric information is not peculiar to only physical goods market, it is a phenomenon that is more pronounced in the service market notably in the insurance market.

Laird (2016) asserts that asymmetric information might lead to two primary problems in the insurance industry. The first being adverse selection, which is a situation where one party in a contract is at a disadvantage because the other party possesses more accurate

information. The other is the issue of moral hazard, which is a situation where one party's actions might have negative effects on the other party. For this study, the asymmetric information theory is pertinent as it create an imbalance of power between the parties to an insurance contract, usually conferring undue advantage to the buyer in this case unlike other contracts, thus exposing the insurer to underwriting risk.

Finance Distress Theory

In 1983, Baldwin and Scott developed the finance distress theory, which proposed that businesses experience financial hardship when they are unable to make their debt payments on time. A neutral perspective on the relationship between credit risks, liquidity risks, and the financial performance used in the study is provided by the theory of financial distress. As the possibility of default by debtors exposed an organisation to credit risks which can also hinder the organisation from fulfilling its obligation to creditors, hence exposure to liquidity risks. The theory gives an objective basis for conducting a perceptive empirical examination of this relationship in the insurance sector by supplying evidence that the consequences of financial crisis occur before default risks.

Conceptual Review

Liquidity Risks

Liquidity risks arises when there is a discrepancy between the demand and supply of cash, which may be as a result of client withdrawals, credit facilities, and other expenditures (Naoaj, 2023). Liquidity risks can affect both the financial performance and reputation of a firm, hence impacting its income and asset. Liquidity risks is generally calculated using the ratio of current assets to current liabilities as it demonstrates the ability to swiftly turn an asset into cash and displays the capacity of the company to efficiently utilised working capital when kept at normal levels (Sisay, 2017). Drawing on the body of existing research and the correlation between liquidity risks and financial performance, the study hypothesized that liquidity risks have no significant effect on the financial performance of insurance companies.

Credit Risks

Life Insurance Capital Adequacy Test (2023) defined credit risk as the risk of financial loss resulting from a party's potential inability to meet their financial obligations to the insurer. According to Guglielmo, Mario and Xuan (2016), three components make up an insurance company's credit risk. The first is their investment portfolio's credit quality, as determined by investment returns. The second is counter-party risk, which arises from reinsurance activity and derivative contract purchases. And the third is the direct default risk that insurers face, which arises when their liabilities are less than their assets and therefore they might become insolvent. Drawing on the body of existing research and the correlation between credit risks and financial performance, the study hypothesized that credit risks have no significant effect on the financial performance of insurance companies.

Underwriting Risks

Anigma (2017) defined underwriting risk as the possibility of suffering a loss on a risk-evaluation process when the income from the insurance premiums is insufficient to cover the claims. According to Horvey and Odei-Mensah (2024), underwriting risk may be largely caused by inadequate premiums, such as underestimating them or not diversifying the insurance portfolio enough. It could also be due to improper underwriting, erroneous assumptions about the frequency and severity of losses, or other circumstances that are entirely out of the underwriter's control. Drawing on the body of existing research and the correlation between underwriting risk and financial performance, the study hypothesized that underwriting risks have no significant effect on the financial performance of insurance companies.

Financial Performance

Jaber (2020) define performance as the attainment of the target set by employers including the provision of goods and services and their acceptance by the final consumers to ensure the continuity, advancement, growth, and profit of the company. Financial performance assesses the organisation's financial soundness and health in monetary terms and may be used to compare the performance of other organisations within a given sector or between industries. According to Listiadi (2023) the primary financial performance metrics include the return on assets (ROA), return on equity (ROE) and Tobin's Q among others. Performance in the insurance industry is often measured by net premiums collected, underwriting profitability, yearly turnover, returns on investment, return on asset and return on equity. This study adopt return on asset as measure of financial performance.

3.0 Materials and Methods

An ex-post facto research design was adopted and based on the availability of data, ten insurance companies were selected from the twenty-two (22) insurance companies listed on the Nigeria stock exchange floor as of October 18, 2023. Data was extracted from the selected companies annual reports filed with the NSE over a twelve-year period (2012–2023).

Return on asset was measured with net profit/total assets, liquidity risks with current assets/ current liabilities, credit risk with premium debtors, due from re-insurers and other receivables / net asset, and underwriting risks with claim incurred / premium earned

The study adapt the model used by Sisay (2017) as presented below:

$Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \varepsilon$ 3.1

Where: Y= Return on Assets, α= Gradient or slope of the regression;

β (1- 3) = Regression coefficients; $X1$ = Credit Risks;

$X2$ = Liquidity Risks $X3$ = Underwriting Risks

ε = Error Term.

Data for this study was analyzed with Eviews 9 application software. Descriptive analysis to examine the features of the extracted data; preliminary investigations were conducted to determine whether the data used were appropriate and to select the optimal panel data regression model; and inferential analysis was performed to test the study's hypothesis using regression analysis.

4.0 Results

Table 1: Overview of Descriptive Statistics

	Return on Assets	Liquidity Risks	Credit Risks	Underwriting Risks
Mean	0.0329	2.1939	0.2960	0.3319
Std. Dev.	0.0590	1.2092	0.1836	0.3746
Skewness	0.1853	2.0389	1.2022	5.5935
Kurtosis	8.8337	7.0976	6.2986	38.9994
Observations	120	120	120	120

Source: Eviews Output (2024)

Table 1 shows that, for 120 observations, the average ROA value of the companies was 0.329 percent with a standard deviation of 0.0590. The positive average ROA value indicates that the companies were on average profitable and the standard deviation of the ROA indicates the presence of less variation in the companies ROA.

The mean value of liquidity risks for the 120 observations was 2.1939 with a standard deviation of 1.209. The average liquidity risk value indicates that the companies have an appropriate liquidity ratio, while the standard deviation of the liquidity risk shows the presence of less disparity in the companies liquidity risks.

The mean value of the credit risk for the 120 observations was 0.2960 with a standard deviation of 0.1836. The average credit risk value indicates that the companies have a credit risk to net asset of ratio of 29.60%, while the standard deviation of the credit risk implies the existence of little disparity in the credit risk of the insurance companies.

The mean value of the underwriting risk for the 120 observations was 0.3319 with a standard deviation of 0.3646. The average underwriting risk value indicates that the companies have a claim expenses to gross premium income ratio of 36.46%, while the standard deviation of the underwriting risk implies the existence of little disparity in the underwriting risk of the insurance companies.

Preliminary Investigation

The correlationtests and cross-dependence test were conducted on the extracted data and the result were as follows.

Table 2: Correlation Matrix

Correlation	ROA	LR	CR	UR
ROA	1.0			
LR	-0.0442	1.0		
CR	0.0474	-0.5293	1.0	
UR	-0.0796	-0.0525	0.0081	1.0

Source: Eviews Output (2024)

The correlation between the independents variables; liquidity, credit and underwriting risk are presented. As presented in Table 2, the correlation coefficient between liquidity risk and credit risk is -0.5293, between liquidity risk and underwriting risk is -0.0593 and credit risk and underwriting risk is 0.0081. Since their coefficients is less than 0.80 we can concluded there is no series multicolinarity problem as supported with empirical evidence.

Table 3: Test for Cross Section Dependence

Test	Statistic	d.f	Prob
Breusch-Pagan LM	44.71183	45	0.4841
Pesaran scaled LM	-1.084469		0.2782
Pesaran CD	1.225798		0.2203

Source: Eviews Output (2024)

Table 3 indicates that the p-value for all three cross-section dependence tests is higher than 5%. Therefore, there is no cross-sectional dependency.

Regression Data Panel Selection

The study used the Chow and Hausman tests to determined the best regression model among the common effect, fixed effect, and random effect models.

Table 4: Chow Test

Effects Test	Statistic.	d.f.	Prob
Cross-section F	2.570510	(9,107)	0.0102
Cross-section Chi-square	23.488848	19	0.0052

Source: Eviews Output (2024)

Given Table 4's chi-square statistic of 23.4887 and prob value of 0.0052, which is below the 5% sig value, H0 is rejected and H1 is accepted, indicating that the Fixed Effect Model (FEM) is the best model to employ.

Table 5: Hausman Test

Test Summary	Chi-Sq. Statistic.	Chi-Sq. d.f	Prob
Cross-section random	2.572391	3	0.0462

Source: Eviews Output (2024)

With a chi-square statistic of 2.572391 and a prob value of 0.0462 that is below the 5% sig value, Table 5 indicates that H0 is rejected and H1 is accepted, indicating that the Fixed Effect Models (FEM) is the best model to employ.

Test of Hypothesis

Decision rule:

If (p> 0.05): Accept $\mathbf{H_0}$ (null hypothesis),

If (p <0.05): Reject $\mathbf{H_0}$ (null hypothesis) and adopt $\mathbf{H_1}$ (alternative hypothesis).

Table 6: Fixed Effect Model Estimation Result

Variables	Coefficient.	Std. Error.	t-Statistic.	Prob
Constant	0.080021	0.023584	3.392965	0.0010
Liquidity risks	-0.012969	0.007104	-1.825554	0.0710
Credit risks	-0.057613	0.045391	-1.269250	0.2074
Underwriting risks	-0.004925	0.016194	-0.304108	0.7617

Effects Specification.

Cross section fixed (dummy variables)

R squared	0.311768	Mean dependent var	0.032883
Adjusted R squared	0.146879	S.D. dependent var	0.059022
S.E. of regression	0.054515	Akaike info criterion	-2.803817
Sum squared resid	0.285303	Schwarz criterion	-2.246319
Log likelihood	1.92.2290	Hannan-Quinn criter	-2.577414
F-statistic	1.890776	Durbin-Watson stat	1.531023
Prob(F-statistic)	0.017065		

Source: Eviews Output (2024)

Table 6 R-squared value of 0.3118 indicates that the independent variables—liquidity risk, credit risk, and underwriting risk—can account for 31.18% of the variation in the insurance companies' return on assets, with other factors not included in the model accounting for the remaining percentage. It also indicates that the model is a good fit and was

statistically significant in predicting how the independent variables affect the return on asset of insurance companies as demonstrated by the prob(F-statistic) value of 0.017065, which is less than the sig value of 5%.

H_{01}: Liquidity risks have no significant effect on the financial performance of insurance companies.

Table 6 shows a p-value of 0.0710 and a liquidity risk coefficient value of -0.012969. Although this suggests a negative correlation between return on asset and liquidity risk, the study is unable to reject the null hypothesis because the p-value of 0.0710 is greater than the 5% sig value. Therefore, the estimation result of the fixed effect model indicates that liquidity issues do not significantly affect the financial performance of insurance companies.

H_{02}: Credit risks have no significant effect on the financial performance of insurance companies.

Table 6 shows a p-value of 0.2074 and a credit risk coefficient value of -0.057613. Despite showing a negative correlation between credit risk and return on asset, the study is unable to reject the null hypothesis since the p-value of 0.2074 is greater than the 5% sig value. Therefore, credit risks have no significant effect on the financial performance of insurance companies.

H_{03}: Underwriting risks have no significant effect on the financial performance of insurance companies.

Table 6 also shows a p-value of 0.7617 and an underwriting risk coefficient value of -0.004925. This suggests that underwriting risk and return on asset have a negative correlation. The study is unable to reject the null hypothesis since the p-value of 0.7617 is greater than the 5% sig value. Therefore, underwriting risks have no significant effect on the financial performance of insurance companies.

5.0 Discussions and Recommendations

The study's analysis revealed that liquidity risk has no significant effect on the financial performance of insurance companies in Nigeria. The finding of this study thus suggests that financial performance of insurance companies is not significantly impacted by changes in their liquidity risk. This study findings is in tandem with prior studies by Ibrahim et al. (2020) which also found that financial performance is not significantly impacted by liquidity risk. This study finding is in variance with some other research findings such as Arif and Showket (2015) which found either a positive or negative significant influence by liquidity risk on financial performance.

The study also found that credit risks does not significantly affect the financial performance of insurance companies in Nigeria. The study's findings suggest that an insurance company's financial performance won't be substantially impacted by changes in its credit risks. The result of this study is consistent with research by Wijewardana and Wimalasiri (2017) which likewise revealed no significant correlation between credit risk and financial performance. This study finding is however in contrary to some other research findings such as Sundus, Musaed, Khuloud and Nour (2020) which found either a positive or negative significant influence by credit risk on financial performance.

This research also found that underwriting risk does not significantly affect the financial performance of insurance companies in Nigeria. This study's finding is consistent with earlier research by Menna (2020) which concluded that underwriting risk has little bearing on financial performance. However, the results of this study run counter to that of Suheyli (2015) which found that underwriting risk significantly impairs financial performance.

Though regression analysis's findings indicate that underwriting, credit, and liquidity risks have no discernible impact on insurance businesses' financial performance. It is significant to note that the study's R Square of 0.3118 shows that credit risk, underwriting risk, and liquidity risk account for 31.18% of variations in the return on assets of insurance companies. Additionally, the study correlation coefficient result indicates the direction of this relationship, with a correlation coefficient of -0.01297, -0.05761 and -0.0049 for liquidity risks, credit risk and underwriting risk respectively, the study indicated that return on asset and the three independent variables considered for this study have a negative correlation.

It is recommended that companies diversify their investment portfolio by investing their idle funds across different industries. The National Insurance Commission (NAICOM) should also ensure that all insurance companies in Nigeria adhere strictly to the provision of section twenty five (25) of the Insurance act of 2003 which deal with the investment of insurance fund.

The study also recommend that Nigerian insurance companies should provide their debtors with payment plans suitable for repaying their existing loans or debts in order to effectively manage the amount of accounts receivable. NAICOM should also ensure that all Nigeria insurance industry players (especially the brokers) in Nigeria adhere strictly to the provision of section forty one (41) of the Insurance act of 2003 which deal with the prompt payment of insurance premium to the insurer.

Finally, insurance companies in Nigeria should strive to reduce their expenses and claims by implementing appropriate pricing and valuation strategies that include the risk associated with certain industries and catastrophic occurrences. Accordingly, businesses must charge enough for insurance policies that need a high level of insurance coverage. They should also ensure diversified portfolio of insurance policies in order to improve premium earnings, which may then be used to offset other losses when they arise.

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