

FINANCIAL PERFORMANCE UNDER PRESSURE: THE EFFECT OF RISK FACTORS ON NIGERIA'S LISTED INSURANCE FIRMS

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Abstract

The study assessed the effect of financial risks on the financial performance of listed insurance firms in Nigeria. The population of this study consists of all listed insurance firms in Nigeria. However, ten (10) insurance firms were selected as sample. The selection of these insurance firms was done using judgmental sampling technique. Data for the study were extracted from their annual reports covering 10 years, from 2015 to 2021. Panel data method was employed for analysis using E-view 10.0. Results revealed that only liquidity risk (LDR) has negative and significant effect on financial performance, while the effect of credit risk and leverage risk is insignificant among the sampled insurance firms. It is concluded that liquidity risk tends to significantly impair the financial performance, if not properly monitored and mitigated. Following this, the study recommends that the sampled insurance firms should continually develop and implement risk management policies and strategies that will help reduce their risk profile in order to improve their financial performance.

Keywords: Financial Risks, Financial Performance, Insurance Firms, Nigeria.

1.0 Introduction

A business organization is a system that comprises different components which work together to achieve a common goal. Most of the businesses in the private sector of the economy are established to achieve a level of financial performance. Financial performance is a measure of a business success that can be quantified in monetary terms. Financial Performance is the ability of a firm to improve its profitability and create more wealth for the owners (Mustapha & Abdullahi, 2023). Primarily, financial performance is considered to be general performance (Agbim et al., 2023). Businesses usually measure their performance at regular interval, mostly at year end, to determine the extent to which their financial objective has been met. Efficiency in managing financial resources is a requisite for better financial performance and business development (Hansen & Mowen, 2019). Success of a business represents its strength in terms of its financial performance (Mohammed et al., 2023). For a business to be able to manage its financial resources efficiently, it must be able to identify and manage its risks effectively. Every profit-oriented-business operates to maximize its financial performance (Yahaya & Lamidi, 2018). One of the major factors that can impede on the actualization of financial objective is risk.

Risk is a possibility of actual event deviating from expected outcome. Business organizations are exposed to different forms of risk which may impair their profitability and finances, if those risks are not properly

managed. There are certain risks which are peculiar to certain industry, and there are also other risks which are common to all forms of business. Financial risk is a component of business risk that is associated with financial market. It is also a type of business risk that is measurable in financial terms, that is, the effect of the risk can be quantified in monetary terms. Once a business identifies a risk, it must measure the risk, analyze the risk, evaluate possible risk management strategies, and implement the best strategy to mitigate any losses that may arise from the risk. There are different types of financial risk, but this study considers only three of them including credit risk, liquidity risk and leverage risk because they are common to most of the businesses.

If financial risk is not adequately managed, it could cause a company to go out of business, especially insurance companies, whose main focus is risk management on a daily basis. Abeyrathna and Lakshan (2020) noted that insurance firms only need to accept a reasonable number of insurable risks to minimize their losses against insurance claims which may arise from unexpected catastrophic events. This means that efficient risk management tends to contribute to a business financial success (Okoth, 2003). Saunders and Cornett (2008) maintained that the major function of contemporary insurance firms is risk management. Poor performance of insurance companies in Nigeria could be linked to not-well-thought risk management policies and ineffective risk management strategies among most of the affected insurance companies in Nigeria. Some of the past empirical studies conducted on financial risks and firm's performance concluded with mixed findings (Arif & Showket, 2015; Sisay, 2017; Abdelrahim, 2021; Sulieman, 2021; Kenneth et al., 2021; Obayagbona & Osagiende, 2023; Gbenga et al., 2023; Mukino, 2018; Olalekan, 2018; Mustapha et al., 2017), thereby necessitating new studies in the related areas. Also, majority of the research works that have been carried out on financial risks studied banking sector, while only few studies have been done on insurance firms in Nigeria (Olalekan et al., 2018; Mustapha et al., 2017). Therefore, it is against this background that this research work sought to examine financial risks and performance of listed insurance firms in Nigeria.

2.0 Literature Review and Hypotheses Development

Credit Risk and Financial performance

Credit risk involves inability or unwillingness of a customer to meet commitments in relation to lending, trading, hedging, settlement and other financial transactions (Erika et al., 2015). Credit risk is a chance or probability of a credit customer not settling its debt at due date. It is also a risk of incurring bad debt in business as a result of a customer or some customers who fail to pay their debts as they fall due. Businesses that sell goods on credit to their customers, and financial institutions who lend money to businesses and individuals are mostly exposed to credit risk. Giving credit to customers can either make or mar a business. Trade credit/credit facility allows businesses to have a large customer base that can translate into more profit for the business. Notwithstanding, if trade credit/credit facility is not properly managed, it can negatively impact on business operation and profitability threatening the survival of the business. Before extending credit facility to a customer, a business must conduct a due diligence activity on the customer to

ascertain financial standing and credit worthiness of such customer. As part of credit policy, businesses must ensure that there is a credit limit for each customer and no customer should be given another credit facility without settling previous debts.

In Tanzania, Kerongo and Rose (2016), in their study, revealed that credit risk affects financial performance of commercial banks. Ibrahim et al., (2020) found that credit risk negatively and substantially influences performance of the sampled firms. Wood & McConney (2018) indicated that credit risk has statistically significant impact on financial performance in Barbados. Mustapha et al., (2017) established that credit risk significantly and negatively influences performance of the sampled firms in Nigeria. Obayagbona and Osagiende (2023) revealed that credit risk has a negative and insignificant relationship with the performance. Gbenga et al., (2023) found that credit risk does not have significant effect on performance of microfinance banks in Nigeria. Based on this background, the following hypotheses were developed and tested:

H₀₁: Credit risk does not have any significant effect on return on asset of listed insurance firms in Nigeria?

Liquidity Risk and Financial performance

Liquidity is the ease with which current assets can be converted into cash without incurring any significant risk. Liquidity is also the capacity of a credit customer or short-term borrower to liquidate his/her debt when it becomes due. Liquidity is usually required for business daily activities, and to ensure smooth business running, organizations must have adequate liquid assets and maintain necessary balance in their mix. However, liquidity risk is the possibility that a business will not be able to settle its short-term liabilities when they become payable. It is also a risk of not having enough cash resources to meet normal-day-business transactions. Business illiquidity can disrupt daily activities and threaten business survival. It can make it difficult, if not impossible, for a business to get more credit facility from suppliers or lenders. Businesses must ensure that their current assets are not more than what is necessary to support their businesses and generate adequate returns for the owners. They must also ensure that they pay their short-term debts on time to improve their credit worthiness and enjoy further credit when needed.

In the study conducted by Ezekiel and Adekola, (2023), it was empirically established that both operational risk and liquidity positively affect financial performance of the sampled insurance firms in Nigeria. Sylvia et al., (2023) found that liquidity risk significantly influences financial performance in Kenya. In Pakistan, Nabeel and Hussain (2017) carried out a study on liquidity risk management and banks' profitability, and results showed that effective liquidity management has positive influence on bank's profitability. Adegbola et al., (2019), in their study, revealed that proper liquidity management positively affects bank's financial performance in Nigeria. In Iran, Emami et al., (2013) examined liquidity risk and performance of commercial banks. It was observed that liquidity risk has significant and negative impact on financial performance (return on assets and return on equity). Ibrahim, et al, (2020) found that the influence of liquidity risk is negative and insignificant on performance of the sampled firms. Wood & McConney (2018) indicated liquidity Risk has statistically significant impact on financial performance in Barbados. Kyule,

(2019) revealed that liquidity risk positively, but insignificantly influences return on assets of quoted firms on Nairobi Stock Exchange. Mukino (2018) revealed that liquidity risk has negative and insignificant influence on financial performance of quoted insurance companies in Kenya. Olalekan (2018) revealed that liquidity risk management negatively affects performance of sampled listed firms in Nigeria. Mustapha et al., (2017) established that the influence of liquidity risk is significant and negative on performance of the sampled firms in Nigeria. Based on this background, the following hypotheses were developed and tested:
H02: Liquidity risk does not have any significant effect on return on asset of listed insurance firms in Nigeria?

Leverage Risk and Financial performance

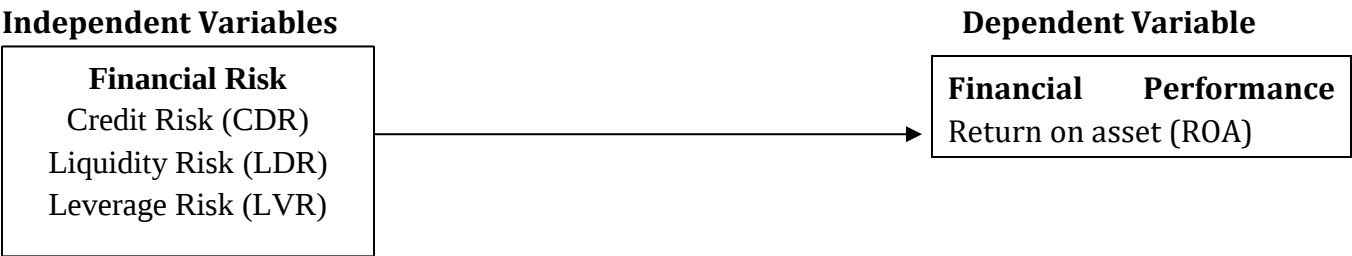
Leverage involves the use of long-term debt to finance capital projects such as acquisition of plant and machines, construction of factory, construction of real estate among others. Most of the businesses usually consider borrowing as the best financing option for a business to generate adequate returns for the investors. Leverage risk is a likelihood that a long-term borrower will not be able to pay his/her loan interest and capital as contained in the loan terms. Leverage risk, if it occurs, can frustrate the business of the borrower. In most of the loan agreements, lenders usually have right to take over the property or asset that is acquired with the borrowed fund in order to recover their money from the borrower, in the event of default. When using leverage, businesses must ensure that they have a workable plan on how to pay loan interest and repay capital when they become payable. They also need to maintain a good balance between leverage and equity, in order not to be too highly geared or levered.

Businesses that are highly levered can end up using the largest part of their profit to pay loan interest, and be left with little profit. Such businesses are also more prone to leverage risk. Kadomi (2021) found that financial leverage has a negative statistically significant impact on net profit margin. Sulieman (2021) concluded that financial leverage affects the financial performance measured through the return on property rights in Jordanian public shareholding companies, while financial leverage does not affect financial performance measured through ROA. Kenneth et al., (2021) revealed statistically significant relationship between leverage risk and performance of real estate investments. Dona and Fernandob (2021) found both a positive and negative relationship between financial leverage and the firms' performance. Mennawi (2020) revealed that financial leverage has a significant and negative impact on the financial performance of Islamic banks in Sudan, Matsoma (2022) revealed that financial leverage has negative influence on profitability. Kyule (2019) revealed that financial leverage negatively and insignificantly influences return on assets of quoted firms on Nairobi Stock Exchange. Based on this background, the following hypotheses were developed and tested:

H03: Leverage risk does not have any significant effect on return on asset of listed insurance firms in Nigeria?

Conceptual Framework

The diagram below shows pictorial relationship between independent variables (credit risk, liquidity risk and leverage risk) and dependent variable (return on asset).



3.0 Methodology

Due to the nature of the variables of the study, which is observable, panel research design was adopted to empirically test how financial risks affect financial performance among quoted insurance firms in Nigeria. The population of this study consists of all listed insurance firms in Nigeria. However, ten (10) insurance firms were selected as sample which include Anchor Insurance, Continental Reinsurance, Lead-way Assurance, Custodian and Allied Insurance, Cornerstone Insurance, NEM Insurance, NICON Insurance, Niger Insurance, Great Nigeria Insurance and FBN Insurance. The selection of these insurance firms was done using judgmental sampling technique. The study used panel data extracted from audited annual reports of the sampled insurance firms, and these data were analyzed using regression method.

To determine the effect of financial risks (credit risk, liquidity risk and leverage risk) on financial performance (return on asset), the study employed the adapted model expressed below.

ROA = f (CDR, LDR and LVR)

$ROA_{it} = \beta_0 + \beta_1 CDR_{it} + \beta_2 LDR_{it} + \beta_3 LVR_{it} + \mu_{it}$ (1)

Where: ROA = an indicator returns on asset of insurance firms (Dependent Variable); β_0 = a constant and β_{1-3} = coefficients of independent variables;

CDR = a predictor representing independent variable (credit risk);

LDR = a predictor representing independent variable (liquidity risk);

LVR = a predictor representing independent variable (leverage risk);

μ = Stochastic error term; i = Cross sectional; and t = time f = Functional relationship.

Table 1: Variables Measurement and Description

Variables	Indicators	Operationalization	Source
Dependent	Return on Asset	<u>Net profit after tax X100</u> Total Assets 1	Emami et al. (2013) Kyule, (2019)
Independent	Credit Risk	<u>Non performing receivables</u> Total receivables	Obayagbona and Osagiende (2023); Mustapha et al. (2017)
Independent	Liquidity Risk	<u>Current Assets</u> Current Liabilities	Ezekiel and Adekola (2023)

Independent Leverage Risk Total Debt Total Asset Mayowa and Eghosa (2018)

Source: Researcher compilation from the Literature, 2023.

4.0 Results and Discussion

Descriptive Statistics

Table 2 presents descriptive statistics of the data obtained for independent variables (Credit risk, liquidity risk & leverage risk) and dependent variable (Return on asset). The Table reveals that return on asset (ROA) records a mean value of 0.0494, standard deviation of 0.0665, maximum value of 0.2071 and minimum value of 0.0007. Table 2 also reveals that credit risk (CDR) records mean value of 0.1541, standard deviation of 0.1016, maximum value of 0.3015 and minimum value of 0.0100. Moreover, the table shows that liquidity risk (LDR) records a mean value of 0.6586, standard deviation of 0.0697, maximum value of 0.2010 and minimum value of 0.0013. Besides, the table reveals that leverage risk (LVR) records mean value of 0.1711, standard deviation of 0.1781, maximum value of 0.5561 and minimum value of 0.0010. In summary, it can be seen that liquidity risk has maximum mean value while return on asset has the least mean value. This implies that liquidity risk was the most critical risk for the period under review. However, leverage risk records the highest standard deviation while return on asset has the lowest standard deviation. This indicates that return on asset was steadier than any other variable for the period under review.

Table 2: Descriptive Statistics

<u>Variable</u>	<u>OBS</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Max</u>	<u>Min</u>
ROA	70	0.0494	0.0665	0.2071	0.0007
CDR	70	0.1541	0.1016	0.3015	0.0100
LDR	70	0.6586	0.0697	0.2010	0.0013
LVR	70	0.1711	0.1781	0.5561	0.0010

Source: E-View Output, 2023.

Unit Root Test

In order to provide evidence as to whether the data obtained for the study have unit root or not, Levin, Lin and Chu, Pesaran's and Shin W-stat, Augmented Dickey-Fuller-Fisher and Philips-Perron-Fisher test were all conducted, and results of the tests as displayed in table 3 below show that the data set for each of the variables in the study is stationary at first differencing.

Table 3: Panel Data Unit Root Tests Results

<u>Order</u>	<u>Variable</u>	<u>LL & C</u>	<u>IPS</u>	<u>ADF-Fisher</u>	<u>PP-Fisher</u>	<u>Conclusion</u>
First Diff.	ROA	17.1438 (0.0000)*	-0.15337 (0.4391)	18.2776 (0.5691)	219.181 (0.0001)*	Stationary
First Diff.	CRD	2.75090	-0.00162	16.8293	107.217	Stationary

		(0.0970)*	(0.4994)	(0.6640)	(0.0000)*	
First Diff.	LDR	-15.2876	-3.80301	56.5324	23.8419	Stationary
		(0.0000)*	(0.0001)*	(0.0000)*	(0.2494)	
First Diff.	LVR	-5.63352	-0.49142	21.7141	69.5363	Stationary
		(0.0000)*	(0.3116)	(0.13562)	(0.0000)*	

Source: E-View Output, 2023.

Note: Figures in parenthesis denote probabilities. LL&C = Levin, Lin and Chu; IPS = Pesaran and Shin W-stat; ADF-Fisher = Augmented Dickey –Fuller-Fisher; PP-Fisher = Philips-Perron-Fisher.

Normality Test

The result of normality test conducted as shown in table 4 reveals skewness value of 0.610004 and kurtosis value of 1.780120. This suggests that the data for the study are normally distributed as those two values fall within the recommended range (Bryne, 2010).

Table 4: Normality Test Result

	Skewness	Kurtosis
Overall statistics	0.6100	1.7801

Source: Author's Computation, 2023

Multicollinearity Test

In order to be assured that there is no multicollinearity issue in the study, Variance Inflation Factor was calculated for each of the independent variables. From table 5 below, it is revealed that credit risk (Credit risk), liquidity risk (Liquidity risk) and leverage risk (Leverage risk) have Variance Inflation Factor (VIF) lower than 10 as suggested by Hair, Anderson, Tatham, and Black (1995), meaning that multicollinearity does not constitute any threat to the results of the study.

Table 5: Multicollinearity Result

Variable	Coefficient Variance	VIF
C	7.63E-05	NA
CDR	0.001508	1.032650
LDR	0.004676	1.505852
LVR	0.000733	1.540822

Source: E-View Output, 2023.

Regression Result

The results of the regression analysis, as presented in table 6 below, shows that the regression model has R-squared of 0.8513. This indicates that credit risk (CDR), liquidity risk (LDR) and leverage risk (LVR), as combined in the model, can account for and predict 85.13% changes in return on asset. The table also shows that the regression model has F-statistics of 2.2374 with a p-value of 0.0315, indicating that the

model best fitted the series. Table 6 below also indicates that fixed effect model is the most appropriate because it has a Chi-square statistic of 1.910496 with p-value of 0.0912 which is significant.

Table 6: Regression Result (Fixed Effect Model)

Variables	Coefficient	P-value
Constant	0.2866	0.0000
CDR	-0.0029	0.5115
LDR	-0.0409	0.0025*
LVR	-0.0917	0.2133
R-squared	0.8513	
Adjusted R-squared	0.5390	
F-statistic	2.2374	
Prob (f-stat)	0.0315*	
Hausman Test:		
Chi-square statistics of	1.9105	p-value
0.0912		

Source: E-View Output, 2023.

From Table 6 above, it is revealed that credit risk (CDR) has coefficient of -0.0029 with p-value of 0.5115, indicating that credit risk (CDR) does not have any substantial effect on return on asset (ROA) as its coefficient value is so negligible, although the effect is negative. The result is consistent with the results of Obayagbona and Osagiende (2023) and Gbenga et al., (2023), but inconsistent with the results obtained by Wood & McConney (2018) and Mustapha et al., (2017). The table also shows that liquidity risk (LDR) has coefficient of -0.0409 with p-value of 0.0025, meaning that increase in liquidity risk by one unit will likely make return on asset to slide by 4.09% significantly because its p-value is below 0.05. The result is consistent with the results of Sylvia, et al, (2023) and Emami et al., (2013), but inconsistent with the results obtained by Ibrahim et al., (2020) and Mukino (2018). Moreover, the table reveals that leverage risk (LVR) has coefficient of -0.0917 with p-value of 0.2133. This implies that increase in leverage risk by one unit will possibly crash return on asset by 9.17%, although this result is not significant because its p-value is more than 0.05. The result is consistent with the findings of Mennawi (2020) and Matsoma (2022).

5.0 Conclusion and Recommendations

The study empirically tested how financial risks (credit risk, liquidity risk and leverage risk) affect financial performance (return on asset) among quoted insurance firms in Nigeria. The study used panel data and covered period from 2015 to 2021. Data were analyzed using fixed effect model. Based on the results of the regression analysis, it is concluded that credit risk and leverage risk have insignificant negative effect on return on asset, while liquidity risk significantly and negatively affects return on asset. This indicates that the higher the risk, the lower the financial performance, and vice versa. The results imply that companies will possibly increase their financial performance, if they can properly manage their financial

risks. Following this, the study recommends that insurance firms should continually develop and implement risk management policies and strategies that will help reduce their risk profile in order to improve their financial performance.

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