Effect Of Liquidity On The Financial Performance Of Insurance Firms In Nigeria

Nwala Maureen Nneka, Aza Solomon M., And Sukana, Danjuma Tusha
Department Of Banking And Finance, Faculty Of Administration,
Nasarawa State University Keffi

Abstract
The ability of insurance firms to honour short term financial obligations as soon as they become due will enable them to effectively carry out their primary responsibility of developing policies and products that protect individuals and businesses against losses resulting from uncertainties and risks. Notably, insurance firms must maintain good liquidity position in order to promptly handle short-term obligations. The study assessed the effect of liquidity (measured by current ratio, cash ratio and leverage ratio) on the financial performance (measured by return on assets) of insurance firms in Nigeria. The study adopted ex-post facto research design and secondary data for ten years (2013 – 2022) was obtained from the annual financial reports and accounts of 15 selected insurance companies listed on the Nigerian Exchange. Panel regression analysis of ordinary least square (OLS) estimation technique was employed in analyzing the 150 observations which emanated from the collected data. The findings from the study revealed that current ratio and cash ratio have a significant positive effect on the financial performance of insurance firms in Nigeria as measured by return on assets. Results from the study revealed that leverage ratio exerts an insignificant positive effect on return on assets. The study concluded that liquidity has a significant positive effect on the financial performance (ROA) of insurance firms. The study recommended that Insurance firms should ensure adequate and prompt payment of genuine claims in order to avoid liquidity problems arising from withdrawals of insurance policies due to decrease in policyholders' confidence.

Keywords: *Liquidity, Current ratio, Cash ratio, leverage ratio, financial performance*

I.   Introduction
        The Nigeria's insurance sector develops policies and products that protect individuals and businesses against losses resulting from uncertainties and risks thereby contributing significantly to the nation's economic growth through the mobilization of domestic savings and generation of funds by way of premiums from policyholders. However, to carry out this role effectively, insurance firms must have the capacity to satisfy their short term obligations as soon as they become due without incurring undesirable losses. This means that they must maintain an optimal liquidity position that does not endanger their going concern status, and allows them to realise adequate returns on their investments. In simple terms, liquidity refers to the ease with which a firm can obtain or raise cash in order to meet its short-term financial obligations.

        The National Insurance Commission (NAICOM) which is Nigeria's insurance regulatory authourity, since its establishment in 1997, has maintained that the inability of insurance firms to meet their current obligations due to bad liquidity position poses a great threat to the growth of Nigeria's insurance industry. The regulatory authority has established that liquidity is very crucial to the survival of insurance firms. When an insurance company runs into liquidity problem and becomes insolvent, it can be compelled to declare bankruptcy and so will no longer be able to underwrite risks, issue out policies to new policyholders and provide coverage for existing policyholders. It may therefore, be forced to access funds at unfavourable interest rates. This higher interest rates will push the insurance firm into debt capable of eroding its profitability.

        However, despite beaming its regulatory searchlight on the liquidity position of insurance firms in Nigeria, the issue of what constitutes an optimal liquidity position for insurance firms in Nigeria remains a subject of debate. According to Chima (2021) the issue of what constitutes an optimal liquidity has raised many problems about the management of liquidity because either inadequate or excessive liquidity may harm the firm's fluid operations.

        Similarly, Yameen et al. (2019) opined that optimum liquidity position has a positive effect on the firm's financial performance but holding an excessive amount of or too little liquid assets has the tendency of hurting the firm's financial performance. Browne et al. (2016) opined that insurance firms with more liquid assets will

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outperform those with less liquid assets and that insurance firms with more liquid assets are less likely to fail because they can realize cash even in very difficult situations.

However, the theory of agency costs which stipulates that high liquidity of assets could increase agency costs for owners because managers might take advantage of the benefits of liquid assets is in sharp contrasts with the assertion of Browne et al. (2016). Therefore, the main objective of this study is to examine the effect of liquidity on the financial performance of insurance firms in Nigeria. The specific objectives are to:
i.   Evaluate the effect of current ratio on the financial performance of insurance firms in Nigeria
ii. Assess the effect of cash ratio on the financial performance of insurance firms in Nigeria
iii. Examine the effect of leverage ratio on the financial performance of insurance firms in Nigeria

Hence, in order to guide the outcome of the study, the following hypotheses were formulated and tested:
H_{01}: Current ratio has no significant effect on financial performance of insurance firms in Nigeria;
H_{02}: Cash ratio has no significant effect on financial performance of insurance firms in Nigeria; and:
H_{03}: Leverage ratio has no significant effect on financial performance of insurance firms in Nigeria.

II.   Literature Review
Conceptual Review
Liquidity
Liquidity is an important financial indicator that shows the ability of a company to meet its short term obligations without experiencing unpleasant losses. It refers to the ease with which an asset can be converted into ready cash without adversely affecting its initial market price.

According to Crockett (2018) liquidity can be an elusive concept which is easier to recognize than define. He opined that liquidity is about having access to cash when you need it and further posited that liquidity is the capacity of a financial institution to fund increases in assets and meet obligations as they come due, without incurring unacceptable losses.

In their opinion, Ashok et al. (2018) described liquidity as the availability of cash and cash equivalents to meet short-term operational needs of firms. They posited that assets like stocks and bonds are very liquid since they can be converted into cash within days, and also agreed that liquidity plays an important role in the effective and productive running of firms, adding that it is very pertinent for firms to keep a close watch on their liquidity positions if they must thrive.

In agreement with this assertion, Nabeel and Hussain (2017) opined that although the main goal of any firm is to maximize wealth, but maintaining liquidity is also a vital objective of firms that cannot be relegated to the background. Hence, amassing wealth at the expense of liquidity comes with serious consequences to firms. Thus, firms must strike a balance between these two conflicting goals.

Similarly, Vintilă and Nenu (2016) asserted that the test of liquidity is the ability of the firm to meet its cash obligations when they are due and to exploit sudden opportunities in the market. Hence, a firm's liquidity is measured by its ability to meet expected and unexpected cash requirements, expand its assets, reduce its liabilities or cover any operating losses. Notably, Setiawan et al. (2020) asserted that liquidity comprises of current ratio, cash ratio and leverage ratio. This informed the choice of these three components of liquidity as the proxies for liquidity which is the independent variable of the study.

Current ratio
Oluwatobi et al. (2021) opined that current ratio is an important liquidity ratio which shows the extent to which the current assets of a firm covers the current liabilities. In other words, it is a liquidity ratio that measures the ability of a company to pay short-term obligations usually within a year. In general, Investors and financial analysts use current ratio to evaluate or determine how a company maximizes the current assets on its statement of financial position (balance sheet) to adequately satisfy its current debt and other payables (Laminfoday, 2018).

According to Olowokudejo et al. (2022) a greater ratio of current assets and current liabilities shows a greater ability of the firm to meet its short-term obligations. However, a low current ratio signifies a liquidation problem while a current ratio that is too high shows a large percentage of idle funds which can negatively affect the firm's financial performance.

Cash Ratio
Cash ratio simply refers to the level of cash in relation to total assets. It assesses the ability of a firm to pay off its short-term debt obligations using its most liquid assets such as cash and cash equivalents, and is obtained by dividing a firm's total cash and cash equivalents with its current liabilities. According to Bibi and Amjad (2017), cash ratio is a liquidity ratio that indicates the capacity of a firm to repay its short-term debt obligations using its cash and cash equivalents. It is an important liquidity ratio which investors, creditors and lenders use to evaluate the short-term risk of a company. Similarly, Kamau and Njeru (2016) asserted that cash

ratio can be expressed as a numeral, less or greater than one. If the outcome or result is greater than one, it means that the firm has adequate cash and easily liquidated assets to cover all its short-term liabilities. But if the result is less than one, it shows that the firm's short-term debts is in excess of its readily available cash to pay them. This provides vital information to lenders in assessing the viability of a requested line of credit and helps investors to have a better understanding of a company's financial stability.

Leverage ratio

Most firms rely on a combination of equity and debt to finance their assets, hence, knowing the amount of debt held by a company is vital in evaluating its capacity to pay off its debts as they become due (Msomi, 2022). Olowokudejo and Ajijola (2022), opined that leverage ratio measures the proportion of debt in the capital structure and the firm's ability to pay debts. It indicates the extent to which a firm's assets or operations are financed with borrowed money. Leverage ratios show the correlation between a firm's liabilities and its assets and equity, thereby helping investors to assess the level of a firm's indebtedness relative to its size. In simple terms, Leverage ratio measures a firm's reliance on debt to fund operations and asset purchases through debt or equity capital.

Financial Performance

The extent to which an organization utilizes its resources optimally to generate value for stakeholders during a given period of time is referred to as financial performance measures. In contributing to the discourse on financial performance, Deyganto and Alemu (2019) opined that financial performance is mostly used to evaluate the financial health of a company or business and the results obtained can be compared with similar results for other firms in the same industry.

Similarly, Mazviona et al. (2017) posited that internal users make use of the financial performance of a company to determine the well-being and standing, among other benchmarks of their companies, while external users use financial performance to analyze potential investment opportunities and to determine if a company is worth their while. In a similar assertion, Patrick (2018) opined that financial performance analysis is an effective criterion for insurance companies to achieve their goals, adapt to changing conditions in the market, improve the way of doing businesses and take measures against possible problems.

However, Nyongesa (2017) asserted that return on assets (ROA) is one of the key metrics employed in assessing the financial performance of insurance firms. Return on assets (ROA) is the most appropriate measure of the performance of a company and when there is an increase in ROA ratio it portrays positive financial performance of relative business and vice versa (Epps & Cereola, 2018). This justifies why ROA was adopted as the measure of financial performance in this study.

Empirical Review

Idolor and Adelegan (2023) empirically investigated the effect of liquidity management on financial performance of deposit money banks (DMBs) in Nigeria for a period of 10 years from 2011 to 2020. The study collected time series secondary data. After using Pooled Ordinary Least Squares, fixed effect and random effect estimator based on Breusch and Pagan Lagrange Multiplier test, F-test and Hausman test, the study analysed the data with the aid of E-views statistical package for descriptive and correlation analysis and STATA 11. Results from the analysis revealed that deposit to asset ratio has a negative but statistically insignificant relationship with return on assets (ROA) of DMBs in Nigeria. Results also showed that cash reserve ratio has a positive but statistically insignificant relationship with return on equity (ROE) of DMBs in Nigeria. Results from the analysis further revealed that loan deposit ratio has a negative but statistically insignificant relationship with net interest margin (NIM) of deposit money banks in Nigeria.

The study recommended that the Central Bank of Nigeria should work towards improving their regulatory powers over all DMBs in Nigeria by setting up special financial court to prosecute serial loan defaulters. The study also recommended that management of deposit money banks should collaborate with the Central Bank of Nigeria in the regular training and retraining of staff.

In a similar study, Kyari et al. (2023) examined the relationship between liquidity and performance of deposits money banks (DMBs) in Nigeria with a view to determining the relationship between current ratio and performance of deposits money banks; examining the relationship between loans to deposit ratio and performance of deposits money banks in Nigeria and evaluating the relationship between deposits to total asset ratio and performance of deposits money banks in Nigeria. The study sourced secondary data from the annual reports of the DMBs and the Nigerian Exchange fact book. The study analysed the data collected using panel regression. The results revealed that current ratio has insignificant negative relationship with performance of deposits money banks in Nigeria. The study recommended that the Central Bank of Nigeria (CBN) and the Nigerian Deposit Insurance Corporation (NDIC) should make and implement policies that will ensure efficient liquidity management by deposits money banks with a view to improving their financial performance.

Gitari and Musau (2023) examined the impact of liquidity management on the financial performance of Kenyan commercial banks. The study used Agency Theory, Liquidity Preference Model and Shift Ability Theory to provide support for the research while adopting a causal research design. The study used data review guide to collect panel data for five years from 2015 to 2019. The data collected was analysed using multiple panel regression model. Results of the study revealed that liquidity management policy has a big impact on how well Kenyan commercial banks were performing financially. It was found that cash management policy, credit management policy, investment management policy and liquid assets holdings all have a positive and significant effect on the banks' return on equity (ROE). The study concluded that the financial performance of commercial banks was significantly impacted positively by the holdings of liquid assets, cash management practices, credit management practices and investment management practices.

The study recommended that in order to achieve the required profit levels, a careful estimation of the most suitable amount of liquid assets holdings to be maintained by the bank at any given time is necessary. The study also recommended that banks should maintain moderate amounts of liquid cash of up to twenty percent to enable them meet their day-to-day obligations.

Olowokudejo and Ajijola (2022) assessed the effect of liquidity management on the return on assets of insurance companies in Nigeria. The study was anchored on shiftability and liability management theory and ex-post facto research design was adopted. The Current ratio (CUR), Total Sales (TSL), and Leverage ratio (LER) were computed from nine years (2011-2019) and data was sourced from the annual reports and accounts of various insurance companies quoted on the Nigerian Exchange. The study employed panel regression analysis of ordinary least square (OLS) estimation technique in analysing the data obtained while return on assets (ROA) was used as dependent variable to measure financial performance. Major findings from the study showed that the total sales, degree of leverage, and liquidity ratio exert a significant positive effect on return on assets. This has demonstrated that total sales, leverage, and liquidity have a long-term goal. The study recommended that the insurance industry should avail itself with maximum benefit of economies of scale and also bring to the barest minimum the cost associated with expansion.

Eke and Ringim (2022) empirically analysed the impact of liquidity management on financial performance of quoted consumer goods companies domiciled in Nigeria. The population of the study consisted of all consumer goods companies whose shares were traded on the floor of the Nigerian Exchange from 2009 to 2020. The sample size was 7 consumer goods companies whose shares were traded on the floor of the Nigerian Exchange. The data were obtained from the annual reports and accounts of the sample companies and Nigerian Exchange Fact Book. The method of data analysis used was the Least Squares Regression Method. The results showed a positive and a weak direct relationship between cash ratio and return on assets of quoted consumer goods companies in Nigeria. The results also showed a negative and a weak inverse relationship between quick ratio and return on assets of quoted consumer goods companies in Nigeria. The study recommended that consumer goods companies should focus on improving their asset utilization ratio so as to improve their performance.

Sani et al. (2022) determined the influence of firms' liquidity on the financial performance of quoted insurance companies in Nigeria. The study employed a descriptive research design. The population of the study consisted of twenty (20) insurance firms listed on the floor of the Nigerian Stock Exchange as of 30th September, 2021, covering the periods of 2014 to 2019. The sample size of the study was made up of seven (7) insurance and assurance companies in Nigeria. A simple random sampling technique was employed in selecting the sample size of the study. The study used GLS random-effects regression method to analyze the data of the study. The outcome of the study revealed that the capital adequacy ratio is the major factor that influences the financial performance of quoted insurance firms in Nigeria. The study recommended that management of quoted insurance firms in Nigeria should offer their shares to the general public for subscription, this will, in turn, increase their capital/ income, and the outcome would be an investment in viable assets and this will enhance the financial performance in the long run.

Horsfall (2022) conducted a study with a view to determine the effect of liquidity on financial performance of non-financial listed companies at the Nigeria Exchange Group (NGX). Secondary data was collected from NGX and multiple regression analysis used in the data analysis. The study revealed that liquidity positively affect the financial performance of non-financial companies listed at the NGX. The study established that current ratio positively affects the financial performance of non-financial companies listed at the NGX. The study also revealed that an increase in operating cash flow ratio positively affects the financial performance of non-financial companies listed at the NGX. The study found that an increase, in debt to equity positively affects the financial performance of non-financial companies, listed at the NGX. The study recommended that there is need for non-financial companies listed at the NGX to increase their current assets so as to increase their liquidity as it was found that an increase in current ratio positively affect the financial performance. The study further recommended that there is need for non-financial companies listed at the NGX to increase their operating cash flow, through reduction of their credit repayment period in order to positively influence their financial performance.

Onuaguluchi and Okwo (2022) appraised liquidity management and gross earnings of insurance firms in Nigeria. The study used current ratio, cash ratio, and operating cash flow ratio as the independent variables while profit for the year was the dependent variable.

The study adopted an ex-post-facto research design, covering the period between 2011 and 2020. Secondary data were extracted from the annual report and accounts of the sampled insurance companies. The correlation technique was used for the data analysis. In line with the specific objectives of the study which was to examine the relationship between current ratio, cash ratio, and operating cash flow ratio and profit for the year of insurance firms in Nigeria, it was revealed that current ratio has a positive and strong relationship with profit for the year of firms in Nigeria insurance subsector. Cash ratio has a negative and weak relationship with profit for the year of firms in Nigeria insurance subsector. The operating cash flow ratio has a positive and weak relationship with profit for the year of firms in the Nigeria insurance subsector. This implies that an increase in current ratio results in a significant increase in profit for the year of insurance firms in Nigeria. It is recommended therefore that insurance firms in Nigeria should strive to improve their current ratio. They can do this by reducing the personal draw on the business and by reducing the personal drawings on the business. They should reduce their propensity to hold cash. They should balance the trade-off between cash holding and profitable investment. They should make profitable investments and ensure that their liabilities are settled on time. Insurance firms should devise strategies to improve the cash they generate from operating activities. They can do this by improving their inventory, and introducing electronic payments.

Msomi (2022) examined the effect of leverage and liquidity on the financial performance of general insurance companies in Sub-Saharan Africa. The study used descriptive correlational techniques to obtain panel data across 113 general insurance companies operating in Sub-Saharan Africa as at December 31, 2019, for 11 years (2008–2019). The pooled OLS, fixed effects and random effects models were estimated with the financial performance measures (proxied by ROA) as the dependent variables where the Hausmann test was employed to test the hypothesis. The findings showed that there is a negative negligible link between leverage and financial performance, whereas there is a positive association between liquidity and financial performance. The study concluded that proper liquidity management is critical for insurance businesses to enhance a company's value as well as financial success. The study recommended that general insurance companies should focus on establishing a proper asset-liability mix in which total liabilities do not exceed total assets.

More so, general insurance companies require cash flow policy recommendations to optimize profit potential while limiting liquidity risk in their financial statement. Notably, the study focused on general insurance companies and would have been more robust if life insurance companies were also studied.

Similarly, Oluwatobi et al. (2021) evaluated the effect of liquidity management on the financial performance of listed insurance companies in Nigeria. The study was based on a sample of ten insurance companies publicly traded on the Nigerian Exchange from 2013 to 2019. It used a random effect panel regression model, and discovered that liquidity management had a strong negative correlation with financial performance metrics in Nigeria's insurance industry. However, just a single positive coefficient was observed with current ratio affects performance in relation to ROA, while ROE was automatically insignificant when the same variables were used. The study concluded, among other things, that given the volatility or risk level connected with insurance companies' services, it is critical for them to constantly invest in accessible assets regardless of the associated cost of payment or in meeting their commitments. The study claimed to have used random effect panel regression model in arriving at its findings. However, the use of either fixed effect or random effect regression model must be premised on the outcome of the Hausman test. Surprisingly, no reference was made to the Hausman test which gives room for suspicion that the author just decided to use fixed effect model without carrying out any pre-estimation test.

Alhassan and Islam (2021) examined the link between liquidity and profitability, as well as the impact of liquidity on profitability. Ten listed companies with a bigger market share in the oil and gas sector of the Nigerian economy were subjected to a fixed panel regression study. Secondary data was gathered for ten years, from 2011 to 2020, from their published annual reports. Profit after tax (PAT), Return on Assets (ROA), and Return on Equity (ROE) were used to determine profitability. Internal liquidity variables such as equity, debt, and sales were utilized to determine the behavior of the dependent variable, but external elements such as lending interest rate and exchange rate were employed to further explain profitability behaviour. The data were analyzed using a multiple regression approach. The findings revealed that debt has a significant negative impact on companies' profitability. Similarly, equity capital, as well as retained earnings, are more beneficial to firms than the debt financing of the oil and gas sector.

The study, therefore, recommended that oil and gas firms should boost their equity capital, improve their revenues, increase their retained earnings, and reduce debt financing to enable them to generate more wealth for shareholders. The authors were able to present the discussion of the findings in such a way that it flowed logically

from the data and is also related to the literature review. This placed the study in context, thereby establishing the reliability and validity of the instruments used in conducting the research.

Theoretical Framework
Liquidity Preference Theory

The liquidity preference theory was propounded by Keynes in 1936. In his study, "The General Theory of Employment, Interest and Money", Keynes (1936) asserted that liquidity or cash is significant for three reasons: speculative motive; precautionary motive and transaction motive. The speculative motive explains the need to hold cash in order to take advantage of favourable market conditions. The precautionary motive highlights the significance of liquidity or cash in tackling financial emergencies. The transactional motive emphasises the need for liquidity to pay day-to-day bills. Hence, there is need for a firm to be liquid in order to meet these three needs. The theory assumes that a company needs to maintain a level of liquidity which may have impact on its financial performance. The study was anchored on the liquidity preference theory because it clearly explains the significance of liquidity to a firm. The theory also explains the relationship between liquidity and financial performance of a firm.

III. Methodology

The study adopted ex-post facto research design. The population of this study is made up of the 24 listed insurance companies on the Nigerian Exchange from year 2013 to 2022. However, due to the small size of the population, statistical sampling technique was not used; instead 15 listed insurance companies that have been listed on the Nigerian Exchange all through the period under consideration that is, 1st January 2013 to 31st December 2022 and also have complete data set for the same periods were selected based on filtering method. The study used multiple panel regression to analyse the data because the data collected was over a period of time (10 years) for 15 listed insurance companies.

Therefore, in order to examine the effect of liquidity on the financial performance of insurance firms in Nigeria, the following model was adopted:

$ROA_{it} = \beta o + \beta_1 CUR_{it} + \beta_2 CAR_{it} + \beta_3 LER_{it} + \varepsilon_{it}$

Where:

i = Number of firms in the industry, that is fifteen (15) insurance companies

t= Period covered, that is ten (10) years

ROA (Measure of Financial Performance) = Return on Assets (Dependent Variable)

βo = Constant parameter

CUR = Current Ratio

CAR = Cash Ratio

LER = Leverage Ratio

β_1, β_2 and β_3 are regression coefficients of the independent variables

ε = Probable error term.

Table 1: Variables of the Study and their Measurements

Variables	Measurement	Sources
ROA (Dependent Variable)	Profit After Tax / Total Assets	Otekunrin, et al. (2019); Bhattarai, D. J. (2021)
CUR (Independent Variable)	Total Current Assets / Total Current Liabilities	Nabeel & Hussain (2017); Vintilă & Nenu (2016)
CAR (Independent Variable)	Cash and cash equivalents / Current Liabilities	Rehman, et al. (2015); Nabeel & Hussain (2017)
LER (Independent Variable)	Long-term debt / Total Assets	Msomi (2022); Olowokudejo & Ajijola (2022)

IV. Results and Discussions
Table 2: Descriptive Statistics

Variables	Mean	Std. Deviation	Minimum	Maximum
ROA	-3.291976	0.246611	-9.740914	0.453214
CUR	1.750952	4.351754	0.278754	19.07000
CAR	0.051624	0.977614	-0.401432	7.731235

LER	0.462222	0.322576	0.170000	1.260000

Source: E-views 10 Computation, 2023

Table 2 shows that the mean of ROA is -3.3 while the standard deviation is 0.25. This reveals that the return on assets of the listed insurance firms in Nigeria for the period of ten years from 2013 to 2022 has an average of -3.3% and ranged from a negative return of 9.74% to a maximum of 0.45%. This implied that for every one Naira worth of net investment, the industry had at worst made a loss of N9.74 kobo and had at best earned a maximum of N0.45. This clearly indicates that the companies are not maximizing profits as they should be. The minimum and maximum return on assets (ROA) are -9.7 and 0.5 respectively, while the ROA deviation is 0.2. This implies that the maximum return on assets for the insurance sector is 0.5% while the most net loss it has seen during the past 10 years is -9.7%. Additionally, table 2 reveals that current ratio has a mean or average value of 1.75 with a standard deviation of 4.35 which means that the current ratio deviates from the mean value by 2.60. Cash ratio has an average value of 0.05 with a standard deviation of 0.98 which implies that the cash ratio deviates from the mean value by 0.93. Leverage ratio has a mean value of 0.46 with a standard deviation of 0.32 which indicates that the leverage ratio deviates from the mean value by 0.14.

V. Correlation Result

The Correlation Matrix table shows the relationship between all the pairs of variables in the Regression Model. It suggests how the independent variables relate with the dependent variable and how the independent variables relate among themselves.

Table 3: Correlation Matrix of variables

Variables	ROA	CUR	CAR	LER
ROA	1.000000			
CUR	0.339121	1.000000		
CAR	0.096512	0.080342	1.000000	
LER	0.384523	0.275915	0.472632	1.000000

Source: E-views 10 Computation, 2023

The correlation matrix as depicted in table 3 revealed a weak and positive association between current ratio and financial performance (ROA) of the sampled insurance firms with a correlation coefficient of 0.34 (34%), while that of cash ratio is also weak and positive with a correlation coefficient of 0.10 (10%), and that of leverage ratio is moderate and positive with a correlation coefficient of 0.38 (38%).

Hausman Test

The Hausman test was used to determine if fixed effect model (FEM) or random effect model was appropriate to test the hypotheses of the study. The Hausman test has a null hypothesis "REM is appropriate than FEM". If P-value is greater than 0.05 then accept null hypothesis but if P-value is less than 0.05 then reject null hypothesis and proceed to FEM

Table 4: Hausman Test

Correlated Random Effects - Hausman Test			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.025726	3	0.082135

Source: E-views 10 Computation, 2023

According to table 4, the Hausman test reveals a P-value of 0.082135 which is greater than 0.05. Therefore, the null hypothesis "REM is appropriate than FEM" was accepted and the alternative hypothesis "FEM is more appropriate than REM" was rejected.

Table 5: Random Effects (RE) Regression Results

Variables	Coefficients	Std. Errors	T	P>|T|
CUR	0.149112	0.107481	0.481214	0.000000
CAR	0.047623	0.032425	0.352431	0.035243
LER	0.070926	0.233212	0.618321	0.033154
C	-3.213814	0.752451	4.872452	0.343321

R – Squared	0.832143	0.845152		
Adjusted R-squared	0.556268	4.723642		
F-statistic	31.892431	0.000412		0.000000
Hettest Chi^2	0.593765	0.023534		0.424345

Source: E-views 10 Computation, 2023

The random effect (RE) regression results presented in table 5 revealed that the coefficient of determination (R^2) is 0.556268 which implies that 56% of the variations in the financial performance (measured by ROA) of insurance firms in Nigeria is caused by explanatory variables, while 44% of the variations is explained by other factors not within the purview of the study. Additionally, the F-value probability of 0.000000 showed that the model is fit and significant at 1% level of significance and the variables are correctly or appropriately selected. The Hettest Chi^2 value of 0.593765 and the corresponding p-value of 0.424345 obtained from the Breusch and Pagan test for heteroscedasticity confirmed that there is no problem of heteroscedasticity. The mean Variance Inflation Factor (VIF) value of 3.241326 which is less than 10 as shown in table 4 implied the absence of multicollinearity.

The results of random effects regression in table 5, revealed that current ratio has a significant and positive effect on the return on assets of insurance firms in Nigeria as indicated by the coefficient value of 0.149112, which is statistically significant at 1% level of significance (P-value of 0.000000). This implied that ROA increases as the current ratio increases. This outcome is in consonance with that of Olowokudejo et al. (2022) but in sharp contrast with that of Laminfoday (2018).

The result also showed that cash ratio has a significant and positive effect on the financial performance (ROA) of insurance firms in Nigeria as revealed by the coefficient value of 0.047623 which is statistically significant at 5% level of significance (P-value of 0.035243). This also means that ROA increases as the cash ratio increases. This result is supported by the findings of Kamau and Njeru (2016) but disagreed with that of Bibi and Amjad (2017). Lastly, the result revealed that leverage ratio has an insignificant and positive effect on the financial performance (ROA) of insurance firms in Nigeria as indicated by the coefficient value of 0.070926 which is statistically significant at 1% level of significance (P-value of 0.033154). This implied that ROA increases as the leverage ratio increases. This outcome is in agreement with the findings of Olowokudejo and Ajijola (2022), but strongly disagreed with that of Msomi (2022).

VI.   Conclusion and Recommendations

The study examined the effect of liquidity on the financial performance of insurance firms in Nigeria. From the findings of the study, it was concluded that liquidity has a significant positive effect on the financial performance of insurance firms in Nigeria. Based on the conclusions of this study, the following recommendations were put forward by the study:

i.   The management of insurance firms should conduct a thorough assessment of their firms' capital assets and immediately dispose those assets that are idle and not generating any return on investment.

ii. Insurance firms should work towards boosting the confidence of policyholders by ensuring prompt and adequate payment of all genuine claims. This will enable them to avoid liquidity problems with respect to cash and cash equivalents arising from withdrawals of insurance policies due to decrease in policyholders' confidence as a result of delayed and non-payment of genuine claims.

iii. Once the leverage ratio of insurance firms signals the possibility of bankruptcy in that the proportion of debt in their capital structure increases, while their ability to pay the debts decreases, then management should negotiate a rescheduling of debt payments to creditors or consider the issuance of new common shares.

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