

Assessing the Implications of Managing Liquidity risk among Financial institutions Outcomes of
General Insurance Companies Listed in Kenya.

KIPKIRUI KORIR DENNIS, Research Scholar (Full Time)

Department of Commerce and Management Studies Andhra University, Visakhapatnam, Andhra
Pradesh, India.

denniskorir83@gmail.com

Prof.P. VENKATESWARLU, Professor

M.A. (Edu)., M.L.I.S.C., MBA., M.Com., Ph.D.

Department of Commerce and Management Studies, Andhra University, Visakhapatnam, Andhra
Pradesh, India

pvenkateswarlu.au@gmail.com

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Abstract

Insurance firms in Kenya face considerable concerns regarding liquidity risks, as they depend on prompt access to the capital to fulfil claims, expenses, and other financial commitments. The study assesses Kenyan financial performance as impacted by insurance risks. The study focused on a sample of 15 insurance firms that are publicly traded on the Nairobi Securities Exchange (NSE) in Kenya. The study utilised panel data spanning from 2017 to 2019. The analysis employed descriptive analysis, with the results presented through tables. The findings revealed a negative and statistically significant, relationship between the insurance current ratio and financial output proxied by return on assets with a negative coefficient of -0.083 and p-value of less than 0.05. The research findings concluded that liquidity risk has a weak negative impact on the financial performance outcome proxied by, return on assets (ROA).

Keywords: ROA, CR, Firm size, insurance companies, Kenya.

1. Introduction

Liquidity risk is a global concern, yet the Kenyan insurance industry may face distinct challenges due to its specific market dynamics, the regulatory framework, and economic conditions (Cummins & Venard, 2008). The distinct features of the Kenyan market, such as the level of market development, the regulatory approaches adopted by the government, and the prevailing economic environment, all play crucial roles in shaping the nature and extent of liquidity risks faced by insurers in the country. These factors can affect insurance companies' capacity to fulfill their short-term commitments, thus influencing their overall financial stability and operational efficiency.

The insurance sector in Kenya has exhibited poor financial performance with a continuous decline or stagnation in growth rates since 2012 (IRA, 2018). As per the Insurance Regulatory Authority (IRA, 2018), insurance penetration remained low at 2.8 percent in 2017, as Gross premiums were calculated as a proportion of GDP. The report also highlights a decrease in the return on equity and return on assets of insurance sector's, which declined drastically to 8.29% and 1.36%, down from 14.36% and 2.69% respectively in 2017. Additionally, 31.8% of insurance companies experienced losses, while 68.2% were profitable. This reflects a sector where the sustainability of insurance companies is uncertain, despite numerous consolidations aimed at boosting their success and viability(Kariuki et al., 2021). The role that the insurance sector plays is a critical role in driving economic growth and stability, but grapples with liquidity risk. Insurance companies must manage their assets and liabilities carefully to ensure they can pay out future claims while collecting premiums in advance. However, like other financial institutions, insurance companies are exposed to various risks that can significantly impact their financial stability and performance. One major concern is liquidity risk, which arises when an insurance company struggles to meet its immediate financial obligations using its current assets.

Consequently, inadequate liquidity can threaten financial performance and solvency, making it challenging to maintain stability. Ever-changing market dynamics heighten the importance of evaluating liquidity risks. The economic fluctuations, regulatory framework policy changes, and unforeseen events may greatly affect an insurance company's ability to maintain sufficient liquidity.

This research explores the complex correlation between Liquidity risk and financial outcomes in Kenyan insurance companies. It discusses how maintaining adequate liquidity ensures prompt claim settlements and bolsters investor confidence, leading to increased

profitability and market value. On the other hand, having ample funds might require full utilization of resources, potentially resulting in lower investment returns and reduced profitability.

Liquidity risk refers to the danger of running out of cash needed for policy payouts, including surrenders, expenses, and maturities. Even a financially sound company might be forced to sell assets at reduced prices, incurring losses. Rapid asset sales at low prices, borrowing money, and paying interest to meet payout obligations can all impair liquidity. Both liabilities and assets contribute to liquidity risk (Nikolaou, 2009).

I. Problem Statement

In the insurance industry, liquidity risk is less significant than in banking due to the higher frequency of money exchange. Liquidity risk management is crucial in insurance and banking due to interconnected financial systems, cash crises, and high costs associated with liquidity costs and asset-liability mismatches (Castagna & Fede, 2013). Previous research has not specifically addressed liquidity within the insurance sector, particularly concerning company risk management. There is a significant absence of comprehensive studies investigating the correlation between liquidity risk and the financial performance of listed general insurance firms. Prior studies examined how Liquidity influenced the banking sector (Lukorito et al., 2014; Maaka, 2013). The study strives to fill the gap in the early studies by scholars.

II. Research Objective

To evaluate the performance of insurance companies listed in Kenya in connection to liquidity risk.

III. Research Hypotheses

H01: Liquidity risk does not have a significant effect on the financial performance of publicly listed insurance companies in Kenya.

2. Literature Review

Theoretical Review

Conceptual Framework of Liquidity Risks Management

The conceptual framework for controlling liquidity risk in insurance companies includes assessing cash flow uncertainties, identifying portfolio risks, and using risk management parameters. Liquidity risk is very crucial to insurance firms' solvency and financial stability. Insurance firms must have enough liquidity to borrow or sell assets when needed

The Theory of Liquidity Preference

(Keynes, 1936) The concept of liquidity preference has been proposed. Based on the theory, investors who seek high interest rates with a long maturity period do so because these investments are associated with significant risks. Given that all other variables are the same, investors prefer to retain cash or other easily convertible assets that involve lower levels of risk. High liquidity refers to the simplicity and efficiency of Turning an investment into cash at its fair

market value (Maug, 1998). Insurance company investors often prefer short-term bonds over long-term debt to retain capital. This is due to the higher liquidity of short-term bonds, which makes them easier to convert to cash with a lower risk of losing the principal. Conversely, Insurance Companies prefer to opting for Long-term debt is preferred over current liabilities due to the inherent risks linked to emergency loan and would require them to repay the borrowed amount in difficult situations. (Jarrow et al., 2005) contend that the Considering both sets of assumptions leads to a positive maturity risk premium that grows over time. A company's preference for liquidity influences the ideal balance of its assets and liabilities to maintain a strong financial position. Insurance companies that prioritise liquidity will not simply fulfil credit requests, but instead, they will first assess the estimated returns and liquidity of all available assets before making a decision. The study finds liquidity preference theory valuable as it demonstrates the importance for insurance companies to maintain a suitable equilibrium between their assets and liabilities. This is necessary to fulfil their debt obligations promptly and mitigate potential liquidity risks.

Empirical Review

A number of scholars have explored the interrelationship between liquidity issues and financial performance of corporations. This article provides an overview of their findings.

(Mutua & Joseph Theuri, 2023) examined how credit, liquidity, solvency, reinsurance, and underwriting risks impact insurance companies' financial performance in Kenya. The moderating variable was GDP. The census method and explanatory research design were used. The audited financial reports used to collect data from 2015 to 2020 collected from Insurance Regulatory Authority. Panel data was employed through STATA software, the regression analysis

results indicated that credit, liquidity, solvency, and underwriting risks negatively influenced financial results. Conversely, the impact of reinsurance risk on financial performance was positive, though the effect was not statistically significant.

(Adusei, 2022) An analysis was conducted on the effect of liquidity risk on the financial performance of microfinance institutions (MFIs), utilizing a sample of 532 MFIs across 73 countries. The findings indicate that liquidity risk significantly and negatively influences the financial performance of these institutions. However, the study also indicates that when credit risk is present, Liquidity risk has a positive impact on the financial performance of MFIs.

(Wanjiru & Jagongo, 2022) The research examined the effect of liquidity risk on the financial condition of DT-SACCOs in Kenya was examined using a descriptive research approach. Secondary panel data was gathered from 175 DT-SACCOs covering the period from 2016 to 2020. Financial performance, indicated by Return on Assets (ROA), exhibited fluctuations over time. Meanwhile, the decline in the shift in liquidity, reflected in the proportion of liquid assets to total assets, led to the emergence of liquidity-related risks.

(A. M. Kamau et al., 2021) The research examined the influence of company characteristics on the financial performance of insurance firms in Kenya. Secondary data was obtained from the Insurance Regulatory Authority (IRA), the Association of Kenya Insurers (AKI), and multiple company websites. Liquidity and leverage were treated as independent variables, with financial performance as the dependent variable. A regression model was utilized to analyze the panel data, revealing that both leverage and liquidity risk significantly affected the financial performance of insurance companies in Kenya.

(Saleh & Abu Afifa, 2020) The researchers analyzed how Liquidity risk, credit risk, and capital were examined to determine their impact on profitability of Jordanian banks

was examined Applying econometric panel data with the generalized method of moments to evaluate the associations between the variables. The research concluded that adherence to Basel regulations boosts bank profitability and supports effective risk management. However, the research was limited to commercial banks, its conclusions do not extend to insurance companies.

(Akenga, 2017) The research aimed to assess the impact of the current ratio, cash reserves, and debt ratio on the financial performance of companies listed on the Nairobi Securities Exchange (NSE). A causal research design was employed, with 30 firms chosen through purposive sampling. Data analysis was carried out using both descriptive and inferential statistics. The findings indicated a statistically significant relationship between the current ratio, cash reserves, and return on assets (ROA), whereas the debt ratio did not have a significant effect on ROA.

(F. Kamau & Njeru, 2016) The study examined the impact of liquidity risk on the financial performance of insurance companies listed in Kenya. A descriptive research design was utilized, and a regression model was applied to explore the relationship between liquidity risk and performance. The results showed a negative correlation between liquidity risk and return on equity (ROE). The current ratio, which assesses the relationship between current assets and total liabilities, was also considered., was also considered, was used as an indicator of liquidity levels. A significant decrease in this ratio may indicate an unstable liquidity position. There is a widespread belief that the absence of liquidity, which is vital for the economy, renders financial markets useless (Maghanga & Kalio, 2012).

3. METHODOLOGY

This study employed panel data regression to establish correlation, regression and Hausman test. Liquidity assessed using the current ratio was considered the independent variable and Firm size served as a moderating factor, with the dependent variable is financial performance, which is calculated as return on assets (ROA). The analysis utilized Statistical data obtained from the publicly disclosed financial statements of insurance businesses and IRA website. Purposive sampling (Rai & Thapa, 2015) was conducted out 55 insurance companies 15 companies were selected over a period of five years 2017 to 2021 and 75 observations examined. Diagnostic tests were conducted to confirm the absence of autocorrelation and homoscedasticity and to ensure that errors followed a normal distribution. Furthermore, the Hausman test confirmed that the fixed effects model was appropriate for the analysis. In order to evaluate the impact of liquidity on performance, a fixed effects panel data regression model was employed to investigate the relationship between liquidity and performance. ("Panel Data Models With Interactive Fixed Effects," 2009) The model used is;

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 X_{it} + \beta_3 X_{it} + \epsilon_{it}$$

The employed model is a linear regression designed to predict a company's financial performance, particularly Return on Assets (ROA), using various variables. The model incorporates the following elements:

- a) Return on Asset (Y_{it}): This is the dependent variable measuring financial performance of companies.

- b) Liquidity (X_{it}): This variable conveys the capacity of a business to meet its immediate monetary commitments.
- c) Coefficients (β) for the independent variables: These values represent assessment of the relative significance of each variable in predicting financial performance.
- d) Insurance companies (i): This denotes the individual companies under analysis.
- e) Time period (t): This indicates the duration over which data was gathered, spanning from 2017 to 2022.
- f) Error term (ε_{it}): This accounts for other factors influencing financial performance that are not captured by the model's other variables.

Measurement of Variables

Variable	Measurement Method	Source
Current Ratio	Current Assets / Current Liabilities	(Devraj, 2014)
Return on Assets (ROA)	$\frac{\text{Net profit after tax} * 100}{\text{Total Assets}}$	(Waswa et al., 2018) ;(Banafa, 2016);(Malik, 2011)
Firm size	Natural Log of Total Assets	(A. M. Kamau, 2022) (Hardwick & Adams, 2002)

Source: Researcher compilation (2024)

DIAGNOSTIC EVALUATION

The data underwent diagnostic tests to confirm that the data was fit and eligible for analysis and this includes pre-estimation and post estimation tests:

Normality Tests

Table 1: Statistical Test for univariate normality

Variable	Skewness	Kurtosis	Adj_chi2	Prob>chi2
ROA	0.077	0.259	4.480	0.106
CR	0.198	0.276	2.960	0.227
Firm size	0.075	0.108	5.530	0.063

Source: Results computed using Stata 15

The p-values of the variables exceed 0.05, indicating that the model and variables are normally distributed.

4. RESULTS AND DISCUSSIONS

Descriptive statistical analysis

The study analyzed balanced panel data from 15 insurance companies in Kenya, with an emphasis on profitability measures, including Return on Assets (ROA), and liquidity measures like the Current Ratio (CR), were analyzed, with the Firm size serving as a moderating factor. The mean current ratio was 2.038, with a standard deviation of 0.685. The current ratio ranged from a minimum of 0.88 to a maximum of 3.77. Firm size had an average value of 2.592 and a standard deviation of 0.062. In terms of profitability, the average ROA was 5.357, with a standard deviation of 0.607, with the lowest ROA observed at 3.7 and the highest at 6.3.

Correlation Analysis Results

Table 2: Table of correlation coefficients.

Variables	ROA	CR	FS
ROA	1.000		
CR	-0.019	1.000	
FS	0.789	-0.135	1.000

Source: Results computed using Stata 15

The data in Table 2, show slight negative correlation between the current ratio and ROA, with a coefficient of -0.019, indicating an inverse correlation. However, firm size exhibits a strong positive correlation as indicated by a coefficient in relation to ROA of 0.789.

Regression diagnostic tests

The Multicollinearity test

Table 3: Variance Inflation Factor test

	VIF	1/VIF
CR	1.018	0.982
Firm Size	1.018	0.982
Mean VIF	1.018	.

Source: Results computed using Stata 15

The issue of multicollinearity was addressed by VIF test and Based on the VIF results, none of the values exceed 10 or 5, indicating the absence of multicollinearity (Daoud, 2017). Breusch-Pagan / Cook-Weisberg test for heteroskedasticity revealed homoscedasticity (Prob > chi2 = 0.3759)(Breusch & Pagan, 1980).

Hausman Test Result

Panel data analysis was conducted for both random effects and fixed effects. The P value was less than 0.05: Prob>chi2 = 0.00, there fixed effects model was favored and thus selected as appropriate model (Hausman, 1978).

Table 4: Result of Fixed Effects

ROA	Coefficient.	Std. Error.	t-value	p-value	[95% Confidence	Interval]	Sig
CR	-0.083	.113	-0.74	0.464	-0.309	0.143	
Firm Size	7.048	2.381	2.96	0.004	2.282	11.814	***
Constant	-12.742	6.174	-2.06	0.044	-25.101	-0.383	**
Mean dependent variable		5.357	SD dependent variable			0.607	
R ²		0.138	Total Observations			75	
F-test		4.633	Prob > F			0.000	
Akaike critical. (AIC)		-2.025	Bayesian critical. (BIC)			4.928	

*** $p < .01$, ** $p < .05$, * $p < .1$

Source: Results computed using Stata 15

Table 4 indicates that the CR the coefficient of -0.083 suggests that a 1 unit rise in the current ratio leads to a 1-unit decline in ROA, with a p-value of 0.464, indicating that this result is not statistically significant at the 5% level. Conversely, Firm Size, with a coefficient of 7.048, indicates that a 1 unit increase in Firm Size results in a 1 unit rise in ROA, with a p-value of 0.004, making it statistically significant at the 5% threshold. The regression analysis, particularly the F-Statistic value of 4.633 (p-value = 0.000) and an Adjusted R² of 0.688, provides sufficient evidence to reject the null hypothesis, suggesting that liquidity management has a significant

impact on the Return on Assets for the selected insurance companies in Kenya. Thus, it is clear from these results that liquidity risk management negatively impacts financial performance as measured by ROA.

5. CONCLUSION

The objective of this study was to investigate the crucial relationship between liquidity risks and the financial performance of insurance businesses in Kenya. A careful review of relevant literature and empirical data yielded numerous notable findings. First and foremost, liquidity risk management is vital for Kenyan insurance companies' financial success. Poor liquidity management can lead to solvency issues, lower capacity to meet policyholder obligations, and poor financial performance, according to the report. The results show that liquidity risk vulnerability varies by insurance firm category in Kenya. Although larger insurers have more established risk management systems, smaller insurers are more vulnerable to liquidity shocks due to limited resources and capabilities. In addition, regulatory frameworks reduce insurance liquidity concerns, according to the report. Industry stability and resilience depend on regulatory agencies setting liquidity risk management standards.

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