

Financial Performance of Insurance Firms. Does Leverage and Liquidity Matter? Evidence from Kenya

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ABSTRACT

The purpose of this study was to investigate the influence of firm attributes on the financial performance of insurance firms in Kenya. The study was anchored on trade off theory. The research philosophy adopted was positivism while the correlation research design was adopted. The study used secondary data which was collected using data collection sheet from Insurance Regulatory Authority (IRA), Association of Kenya Insurers (AKI) and individual firms' websites. The target population of the study was 52 insurers that operated in Kenya for the ten years (2010-2018). The unbalanced panel data was analyzed using Random and Fixed effect model where Hausman test was used to establish to test the hypothesis. The study found that leverage and liquidity had a significant negative effect on financial performance of insurance firms in Kenya. The study recommends that insurance firms to embrace feasible financial leveraging strategies that can boost firm profitability. Also, they need to conduct effective liquidity management to maximize the value of the company and its financial performance.

Keywords: Insurance firms, Financial leveraging, Financial performance.

JEL Classification: G38 Corporate Finance and Governance; Government Policy and Regulation

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Highlights of this paper

- Link between leverage and financial performance of insurance firms were anchored on trade off theory.
- Firm attributes are linked with performance of insurance firms using fixed effect.
- Leverage and liquidity negatively affect financial performance of insurance firms.

1. INTRODUCTION

Financial performance is usually used to determine 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 (Chimkono, 2016). Financial performance is usually done on a yearly basis after each firm publishes its financial statements. All insurance firms in Kenya are mandated by their regulator Insurance Regulatory Authority to furnish them with financial statements and also to publish their financial performance on their individual websites. Similarly, listed firms on Nairobi Securities Exchange are mandated to file their financial statements with both the commission and the Equity Capital Management Authority (Muigai, 2016). Kenya has one of the most robust financial sectors in Africa. According to the World Bank, Kenya has the third largest financial sector in sub Saharan Africa (Kopyakova, Beusichem, Kabir, & Essa, 2017). However, The insurance industry in Kenya has had a relatively low penetration rate of 2.7% compared to the global rate of 6% (Insurance Regulatory Authority, 2017). The insurance penetration in Kenya stands at 2.71% as at the end of December 2017. This can be compared to the rate of insurance penetration in Africa which stands at 3% and the global rate of 6% respectively (Swiss, 2016). Therefore, Kenya insurance industry is less developed and entrenched compared to other nations either from Africa or other continents. In 2017, the Kenyan insurance industry reported total gross premium of USD 2.09 billion, against USD 66.7 for the entire African continent and USD 4.89 trillion globally (Insurance Regulatory Authority, 2017).

According to OECD (2017) the firm characteristics context can considerably influence the growth and performance of insurance industry. For In Turkey, Kaya (2016) found the firm characteristics such as current ratio, firm size, premium growth, firm age and the loss ratio had significant influence on technical profitability and sales profitability ratios that were used to measure the profitability. Similarly, Almajali, Alamro, and Al-Soub (2012) found that returns on assets used as the dependent variables was significantly affected by the management competence, liquidity, size of the company and leverage. In Ethiopia, Mehari and Aemiro (2013) established that while loss ratio had a negative relationship with returns on assets, the firm size, and leverage and asset tangibility while liquidity, age and written premium growth had none. While Murigu (2015) found that management competence index, leverage and Equity Capital had a positive correlation with Returns of Assets (ROA), but company size and ownership structure registered an inverse relationship with Returns on Equity (ROE). Contrary to the expectations of the researcher, there was no relationship between ROA and age of the firm, underwriting risk, liquidity and the retention ratio. The Insurance industry in East Africa is dominated by general insurance in terms of gross premiums written and the performance of these insurers is therefore of paramount importance to development of the sector (IRA, 2014). This study aimed to contribute and add value to the existing wealth of knowledge about the insurance entities and enhance the chances of the realization of the vision 2030 and consequently the big four agenda for the Kenyan government. The study sought to find the influence of specific firm factors (leverage and liquidity) on the financial performance of insurance firms in Kenya.

1.1. Theoretical Framework

The study was anchored on Trade-off Theory and Liquidity Preference Theory. This theory was originated in 1976 by Kraus and Litzenberger (1976). Myers further developed it in 1977 (Kraus & Litzenberger, 1976; Myers,

1984). The static trade-off theorists believe that an optimal debt-equity ratio exists and that rational firms struggle to achieve and operate on that level. The theory underscores that firms make a trade-off between risk of bankruptcy and the related financial distress costs against the benefit of tax shield when making a decision on how to structure their financing. They seek to attain an optimal debt-equity ratio that will reduce the weighted average cost of capital. This optimal balance between debt and equity is difficult to achieve and firms gradually re-organize their capital structure as they struggle to achieve it [Friedman \(1985\)](#). The theory introduces an important perspective in this study by indicating how leverage affects the financial performance of insurance institutions in Kenya. According to the theory, an increase of the leverage of a firm leads to a similar increase in profitability of a firm. Liquidity Preference Theory was developed from the works of John Maynard Keynes, written in his book titled "The General Theory of Employment, Interest, and Money "in 1936. The book breaks down how demand and supply for money influences the interest rate. Demand for money as an asset was hypothesized to rely on the forgone interest by failure to hold bonds ([Keynes, 1969](#)). The theory is anchored on the belief that an investor prefers short-term investments like treasury bills and other money markets products and not long-term investments like bonds and other capital market products due to the need to hold cash for transactional, precautionary and speculative purposes. Firms prefer to hold money (being liquid) or liquid assets as opposed to illiquid assets due to the numerous benefits that accrue when firms are liquid. For instance, when firms are liquid they can be able to buy bonds when their prices are low and sell when prices are high. As such, firms will benefit from interest income and boost their performance. Similarly, firms are ready to pay premiums to get liquid assets. Conversely, firms will consider paying less than market value for illiquid assets. Liquid firms are more efficient in their operations since they can meet their financial obligations on time and this minimizes unnecessary costs from delays and inefficiencies, and this contributes positively towards the firm's financial performance.

1.2. Empirical Reviews (Hypothesis Development)

Financial leverage defines how a firm is indebted through loans, debentures and other forms of borrowing by the firm. The firm borrows with the aim of earning and generating superior returns on its investment compared to the cost of borrowing. Firms which become successful on this front do increase the wealth of the shareholders as well as enhance their financial performance ([Pandey, 2010](#)).

[Meher and Zewudu \(2020\)](#) investigated the link between firm characteristics and macroeconomic variables on the financial performance of insurance firms in Ethiopia. The study adopted a quantitative approach that relied on balanced panel data from nine insurance firms. The data covered the period from 2002 to 2016. Both the Pearson correlation and OLS regression were utilized in assessing the link between the explanatory variables and the dependent variable. The results indicated that firm size and the GDP per capita had a positive and significant influence on the insurance firms' financial performance. On the other hand, leverage and liquidity negatively impacted on the profitability of the targeted insurance firms. The implication from the study is that an increase in the asset base of the insurance firms enhanced its financial performance. However, dependence on borrowed Equity Capital negatively impacted on the financial performance. Consequently, financial leverage negatively influenced the financial performance of insurance firms in Ethiopia.

Also, [Almajali and Shamsuddin \(2019\)](#) did an analysis of the relationship between Equity Capital structure and the profitability of insurance firms in Jordan. The research targeted 19 insurance firms that were listed on the Amman Stock Exchange. The period under investigation was between 2008 and 2017. The analysis relied on correlation and regression to ascertain the relationship among the variables of interest. The proxies of profitability were Tobin's Q, ROE and ROA. On the other hand, Equity Capital structure was measured in terms of short- and

long-term debt as well as equity financing. The findings indicated that the short- and long-term debt exhibited a positive and significant influence with the ROE with a negative correlation with Tobin's Q. Moreover, financial leverage had a positive and significant effect on the profitability of the Jordanian insurance firms. As such, an increase in the financial is linked to an improvement in the financial performance of the targeted insurance firms.

Moreover, [Dey, Adhikari, and Bardhan \(2015\)](#) examined firm characteristics that play a role in influencing the financial performance of insurance firms in India. The study targeted a total of 13 insurance firms that were in operation for a period of ten years right from 2003-04 to 2012-13. The dependent variable in the study was the ROE while the firm size, tangibility, volume of Equity Capital, liquidity and leverage as the independent variables. The findings indicated that a positive link between firm size and ROE of the insurance firms in India. Also, leverage and the volume of Equity Capital negatively impacted on the financial performance of the insurance firms. Finally, there was an insignificant relationship between liquidity and tangibility with insurance firms' financial performance.

Further, [Aadmassie \(2019\)](#) investigated the influence of Equity Capital structure on the financial performance of Ethiopian insurance firms. The study utilized a quantitative approach with panel data to address the study's objectives. Purposive sampling technique was used to select nine private insurance firms. The panel data covered 10 year right from 2008 to 2017. The independent variables in the study were premium growth, firm size, leverage, claim ratio and reinsurance dependence. On the other hand, the financial performance of the private insurance firms was proxied by the return on equity. Analysis was done with the use of the OLS estimation method. The Hausman test indicated that the random effect model was appropriate for establishing the effect of the predictor variables on the outcome variable. The findings of the random effect model indicated that leverage, firm size, debt ratio and claim ratio significantly influenced the profitability of the insurance firms in Ethiopia. Moreover, premium growth and reinsurance dependence had no effect on the ROE of the insurance firms in Ethiopia.

Also, [Bhattarai \(2020\)](#) did an analysis of the influence of Equity Capital structure on the financial performance of insurance firms in Nepal. The study relied on annual reports in sourcing secondary data on the Equity Capital structure and financial performance. The research targeted 14 insurance firms with the data covering the period from 2007/08 to 2015/16. The Hausman test indicated that the random effect model was appropriate for establishing the effect of the predictor variables on the outcome variable. The independent variables in the study were leverage, firm size, asset tangibility and liquidity ratio. The results indicated that leverage and asset tangibility positively impacted on the profitability of the Nepalese insurance firms.

Besides, [Birhan \(2017\)](#) examined the factors influencing the performance of Nile Insurance in Ethiopia. The study relied on a descriptive research design. Both primary and secondary data were utilized in addressing the study's objectives. The unit of analysis were 319 active clients from the Nile insurance firm. The findings indicated that the significant determinant of the profitability of the company were firm size, leverage and the tangibility of asset. Further, liquidity and firm age had a medium impact on the profitability of the Nile insurance company. The implication is that financial leverage is a key determinant of the profitability of the Nile insurance firm. The current study ascertains if indeed there is a link between financial leverage and the performance of insurance firms in Kenya.

Moreover, [Batool and Sahi \(2019\)](#) did a comparative study of the insurance industry in the UK and USA to ascertain the determinants of financial performance. The study targeted 24 insurance firms and collected quarterly data from 2007 when there was a global financial crisis to 2016. The independent variables in the study were leverage, liquidity, firm size and asset turnover. The proxies for profitability were ROE and ROA. The findings indicated that in the USA, leverage, liquidity, firm size and asset turnover positively impacted on the financial performance of insurance firms. On the other hand, in the UK, firm size and liquidity had positive influence on profitability whereas leverage and asset turnover negatively impacted on the profitability of the insurance firms in

the UK. The implication was that the insurance firms in the USA were more efficient when compared to those in the UK.

Also, [Olaniyan, Oyinloye, and Agbadua \(2020\)](#) examined the influence of financial leverage on shareholders' returns in a business environment that is dynamic. The study utilized unbalanced panel data that was analysis with the generalized method of moments (GMM) estimator. The data covered the period ranging from 2008 to 2017. The study targeted 18 insurance firms. The findings indicated that debt ration negatively impacted on shareholders returns. Nevertheless, when interest coverage ratios and debt equity are used as the leverage ratio, the effect on shareholders' returns is positive and significant. The study validated the pecking order theory by confirming that the effect of financial leverage on shareholders returns is largely dependent on the decomposition of financial leverage. Consequently, it is utmost necessary for the management of insurance firms to reassess the costs and risks associated with financial leverage before embarking on a given financing decision. Emphasis needs to be on lowering indebtedness to reduce the negative impact of financial leverage on shareholders' returns.

Further, [Almajali and Shamsuddin \(2019\)](#) examined the link between profitability and the Equity Capital structure of Jordanian insurance firms. The study targeted 19 listed insurance firms in the Amman Stock Exchange. The variables of interest covered a 10 year period from 2008 to 2017. The empirical results indicated a positive correlation between short-term and long-term debt with the ROE and negative correlation with Tobin's Q. Further, financial leverage had a positive and significant effect on the profitability of Jordanian insurance firms. The findings suggested that an increase in the financial leverage is associated with an increase in financial performance. The study however does not indicate if the composition of the financial leverage plays a significant role in influencing firm financial performance. The current study establishes if this is the case among insurance firms in Kenya.

Based on these findings, Empirical research indicates that there is no universally agreeable position on whether leverage positively or negatively influences the financial performance of firms. Numerous studies relating to financial performance was reviewed. However, most of the articles reviewed dwelled on commercial banks, savings and credit co-operative societies, small medium enterprises and manufacturing firms. Some were done in mature and developed economies. The number of studies done on specific factors and financial performance in Africa is scarce while an insignificant volume of studies relates to the financial performance of the insurance sector in Kenya. This study, therefore, hypothesized that.

H₀: Firm leverage has no significant influence on the financial performance of the insurance companies in Kenya.

Liquidity has been defined by different authors and researchers different. It measures the degree to which an asset can be sold or bought quickly without compromising its market value. The most liquid asset is cash, both at hand and in the bank, [Chipa and Wamiori \(2014\)](#). In the same vein, liquidity is a technical term referring to the ability of a firm to pay off its liabilities, whose re-payment period is less than twelve months, by using its liquid assets at its disposal and not by liquidating its fixed assets. A firm may have a huge volume of Equity Capital but still suffer from liquidity problems due to mismatch of assets and liabilities maturity timelines ([Olajide, Funmi, & Olayemi, 2017](#)). [Alomari and Azzam \(2017\)](#) found that liquidity was inversely related to ROA. The study population included the 24 listed insurance firms operating in Jordan in between 2008 to 2014. The other study variables were inflation, gross domestic output, underwriting risk and leverage.

[Kinyua \(2018\)](#) examined the micro factors that play a role in influencing the profitability of insurance firms in Kenya. The research utilized a descriptive research design. A census was conducted to sample insurance firms in Kenya that are licensed to operate. From the census, the study targeted 6 listed insurance firms.. The findings from the analysis indicated that liquidity had no significant effect on the profitability of the targeted insurance firms.

Further, [Abdeljawad, Dwaikat, and Oweidat \(2020\)](#) examined the factors influencing the profitability of insurance firms in Palestine. The research targeted seven insurance firms operating in the country and relied on unbalance data to address the objective. The data covered the period ranging from 2006 to 2018. The results of the analysis indicated that liquidity, growth and firm size had a positive and significant influence on the profitability of the insurance firms in Palestine.

[Zainudin, Mahdzan, and Leong \(2018\)](#) did an exploratory analysis of internal firm characteristics that impact on the profitability of insurance firms in selected Asian countries. The countries that the research focused on were Malaysia, Thailand, Singapore, South Korea, Hong Kong, Japan, Singapore and Taiwan. The period of focus was from 2008 to 2014.. The results of the random model indicated that the firm size, underwriting risk and the volume of capital were significant determinants of profitability for the life insurance firms in the targeted Asian countries. On the other hand, liquidity, premium growth and asset tangibility had no effect on the profitability of the insurance firms.

[Abebe and Abera \(2019\)](#) delved into the factors influencing the performance of firms in the insurance industry in Ethiopia. The period of focus was between 2010 and 2015. The findings from the regression analysis indicated that liquidity, Equity Capital adequacy, firm size, age and leverage were among the key factors that influenced the profitability of the Ethiopian insurance firms.

[Ngunguni, Misango, and Onsiro \(2020\)](#) delved into the financial factors that influence the profitability of Kenyan general insurance firms. The dependent variable in the study was profitability which was proxied by ROA. The study period ranged from 2013 to 2017. The findings from the regression analysis indicated that loss ratio and leverage ratio had a negative and insignificant effect on the profitability of the general insurance firms in Kenya.

[Kipngetch \(2019\)](#) examined the effect of liquidity on the financial performance of insurance firms in Kenya. The study was motivated by the fact that the way in which insurance firms manage their liquidity has a role in influencing their profitability. The study targeted 47 licensed insurance firms in Kenya. The secondary data comprise of annual data on the liquidity ratio and the ROA. The period under investigation was between 2014 to 2018. The quantitative data was analyzed with SPPSS V 25.0 and the findings presented in the form of frequencies and percentages. The findings indicated that liquidity had a positive and significant influence on the financial performance of the targeted insurance firms in Kenya. [Patrick \(2018\)](#) delved into the effect of liquidity management on the performance of Nigerian insurance firms. The period of focus was between 2003 and 2012. The independent variables in the study were liquidity ratio, Equity Capital, working Equity Capital, investment, firm size and underwriting risk. The dependent variable was firm performance. The study utilized panel data to address the research's objectives. The Hausman test indicated that the random effect model was the most appropriate to test the hypotheses. The findings from the random effect model indicated that liquidity management does not significantly influence the performance of Nigerian insurance firms. Moreover, [Mazviona, Dube, and Sakahuhwa \(2017\)](#) delved into the factors influencing the performance of insurance firms in Zimbabwe. The study targeted twenty insurance firms in the country. To address the objective of the research, secondary data was obtained from the annual financial statement and the websites of the insurance firms in Zimbabwe. The period of focus was between 2010 and 2014.. The results indicated that liquidity and leverage positively influenced the performance of the insurance firms. Additionally, [Zeyede \(2018\)](#) did an analysis of the determinants of the performance of non-life insurance firms in Ethiopia. To address the research's objective, an explanatory research design was adopted. The study obtained data from the financial statements of the non-life insurance firms in Ethiopia as well as the National Bank of Ethiopia. The period under investigation was 2003 to 2017. Also; the study relied on primary data that was obtained with interviews. The random effect panel model was used to analyze the data. The findings indicated that liquidity and

inflation had an insignificant influence on the performance of Ethiopian insurance firms. The current study will establish if the same holds for the insurance firms in Kenya. Empirical research indicates that there is no consensus on the direction and degree of influence that liquidity has on the financial performance of insurance firms. Moreover, Most of these findings did not both listed and non-listed firms and they applied multiple regressions to examine the data collected on 21 insurers. Thus, this current hypothesized that:

H₀₂: Liquidity has no significant influence on the financial performance of the insurance companies.

2. METHODOLOGY

The research methodology of this study was based on positivist social science as an approach in order to conduct a quantitative collection and analysis of data in annual reports. Hence, this study correlation research designs to collect panel data over a period of 9 years (2010-2018) from 52 insurers that were in operation in Kenya as at 31st December 2018. panel data collocated was analyzed using fixed effects models and the random effects models. The researcher chooses which model to use between FE and RE based on the nature of data to be analyzed. The recommended procedure is the use of the Hausman test. Hausman test null hypothesis is that there is no significant relationship between the unobserved individual effects and the independent variables. A rejection of the null hypothesis means we accept the alternative hypothesis that the error term is correlated with the independent variables and hence conclude to use random effects model. The researcher used the following equation for the purposes of the study at hand.

$$\text{Lnperformance (ROA)}_{it} = \alpha_0 + \beta \text{LnGP}_{it} + \beta \text{LnLEV}_{it} + \mu_{it}$$

Where;

ROA_{it} = Returns on Asset of insurance i at time t.

LEV_{it} = Leverage of insurance i at time t.

LIQ_{it} = Liquidity of insurance i at time t.

Ln= the natural log.

α₀ = Constant return.

μ_{it} = Composite error term.

2.1. Measurement of Variables

The study used Returns on Assets (ROA) as measure of financial performance (Chipa & Wamiori, 2014; Onsongo, 2015). Leverage was measured as a total liability to total assets a measure (Mehari & Aemiro, 2013). Financial liquidity was measured by a current ratio; current assets over current liabilities, similar to the method adopted by Murigu (2014) in their studies.

Table-1. Measurement of variables.

Variable	How to measure	Previous studies which used this measurement method
Dependent Variable		
ROA	EBIT/Total Assets	(Banafa, 2016; Mwongeli & Joan, 2016; Obudho, 2014)
Independent Variable		
Liquidity	Current assets/Current Liability	(Akenga, 2017; Olalekan, 2018; Ongore & Kusa, 2013)
Leverage	Total debt/Total Assets	(Kale, 2013; Mohamed, 2016; Regasa, 2014)

3. FINDINGS

This section describes the data analysis, presentation and interpretation of the findings. Descriptive statistics helped to identify trends, patterns and characteristics of the data in order to allow for further analysis. Data was collected from websites, annual reports and other publications of Insurance Regulatory Authority, Association of Kenya Insurers and individual insurers covering nine years. The summary statistics for the financial performance, liquidity, leverage presented in Table 1. Findings showed that the return on assets was at a mean ratio of 0.05. More findings revealed that liquidity levels were at an overall mean of 7.25 while leverage was at a mean of 0.66.

Table-2. Summary Statistics

Stats	Min	Max	Mean	P50	Sd	Skewness	Kurtosis
ROA	-0.67	2.89	0.05	0.03	0.17	11.20	192.53
leverage	-2.66	1.65	0.65	0.66	0.24	-5.58	78.10
liquidity	0.12	941.34	7.25	2.70	44.88	20.09	418.06

3.1. Diagnostic Tests of the Data

The classical linear regression model assumptions and their diagnostic tests are discussed below. The model has no problem of heteroscedasticity or the error variance is constant since the p-value is not significant, meaning that p-value is 0.1570 which is greater than 0.05. Consequently, the null hypothesis was not rejected since the error variance is constant. The Jarque-Bera Test was used to assess normality and it was established that the residuals were normally distributed. Table 3 shows that that Chi (2) is 0.6592. The value surpasses the threshold value of 0.05, meaning there is no violation of normality. This study applies Levin-Lin-Chu unit-root test, the p-values in Table 3 shows that the null hypothesis can be rejected at all conventional significance levels for all the variables of the study, meaning that there is no unit root in the data (Gujarati, 2012). Wooldridge test for autocorrelation was used to test autocorrelation. Thus, the results indicate a insignificant autocorrelated relationship between all the independent variables and financial performance. This implied non-violation of the autocorrelation assumption. Variance Inflation Factor (VIF) tests for multicollinearity showed a mean value of 2.4. which was less than 10.

Table-3.Diagnostic tests.

		ROA	LEV	LIQ
Levin-Lin-Chu unit-root test	Statistic	-5.556	-7.599	5.134
	p-value	0.000	0.000	0.000
White's test for homoscedasticity	chi2(1)	3.430		
	Prob > chi2	0.064		
Jarque-Bera normality	JB	0.843		
	Chi(2)	0.656		
Wooldridge test for autocorrelation	F(1, 45)	4.242		
	Prob > F	0.453		
Variance Inflation Factor (VIF) tests	Mean VIF	2.34		

3.2. Hausman Test

Hausman test was used to select either the fixed or random effects, regression model, to test for the hypotheses (Green, 2008). Hausman test compares the coefficients under certain properties. First, under the null hypothesis of correct model specification, both estimates are consistent for the true parameters of the model. In this property, the size of the test can be controlled asymptotically. Secondly, the Hausman test for model misspecification, the model estimates should have different probabilities limit. This property gives the test its power.

Table-4. Hausman test.

---- Coefficients ----				
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	Fe	Re	Difference	S.E.
LEV	-0.582	-0.575	-0.006	0.011
LIQ	-0.086	-0.086	0.000	0.012
b = consistent under Ho and Ha; obtained from xtreg.				
B = inconsistent under Ha, efficient under Ho; obtained from xtreg.				
Test: Ho: difference in coefficients not systematic.				
chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)				
= 1.22				
Prob>chi2 = 0.8754				

From the Hausman test Table 4, which shows a summary of the results, the conclusion is that the null hypothesis of "difference in coefficients not systematic" to determinants of financial performance is accepted. This is because the chi-square value of 1.22 was insignificant, p-value = 0.8754. Therefore, this implies that the effect of the hypothesis is tested using the random effects model.

3.3. Random-Effects GLS Regression

The random effect model estimates the coefficients based on the assumption that the individual or group effects are uncorrelated with other independent variables. The regression results for the random model are as illustrated in Table 5. The random model showed that liquidity and leverage explained 61.86% variation of financial performance.

Table-5. Random-effects GLS regression.

Random-effects GLS regression		Number of obs		=		407	
Group variable: id		Number of groups		=		54	
R-sq: within	= 0.5992	Obs per group: min		=		2	
between	= 0.6260	avg		=		7.5	
overall	= 0.6186	max		=		10	
		Wald chi2(4)		=		614.58	
corr(u_i, X) = 0 (assumed)		Prob > chi2		=		0.000	
ROA	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]	
LEV	-0.575	0.026	-22.310	0.000	-0.626	-0.525	
LIQ	-0.086	0.037	-2.330	0.020	-0.158	-0.014	
_cons	-2.161	1.321	-1.640	0.102	-4.750	0.427	
sigma_u	0.663						
sigma_e	0.814						
rho	0.399		(fraction of variance due to u_i				

Hypothesis 1(H₀) stipulated that firm leverage has no significant effect on financial performance. On the contrary, the regression findings indicated that firm leverage was associated with a decline in financial performance ($\beta = -.575, \rho < .05$). As such, the null hypothesis was rejected. The implication is that an increase in firm leverage by .575 units leads to a decline in financial performance by the same unit. Consistent with the findings, Akinlo and Asaolu (2012) concluded that leverage was negatively correlated with profitability of firms in Nigeria. In a similar vein, Quang and Xin (2014) elucidated that leverage is inversely related to financial performance. As well, Zeitun and Tian (2014) argued that leverage is strongly and negatively correlated with firm financial performance. Further, Cekrezi (2015) indicated that leverage negatively impacts on the financial performance of insurance firms in Albania. In addition, the findings conform with those of prior authors who found a negative link between

leverage and the profitability of insurance firms (Batool & Sahi, 2019; Dey et al., 2015; Getahu & Ismail, 2016; Meher & Zewudu, 2020).

Contrary to the study findings, Kale (2013) postulated that the heavier the firm is leveraged the better the financial performance. In the same way, Sambasivam and Ayele (2013) argued that highly profitable insurance firms follow the pecking order theory to fund their operations since the more leveraged an entity is the better its Returns on Asset. Similarly, Ahmed, Ahmed, and Ahmed (2010) found out that leverage was positively and significantly correlated to ROA. The same argument was shared by authors who established that financial leverage, had a positive and significant influence on the performance of the insurance firms (Almajali & Shamsuddin, 2019; Getachew, 2014; Wanyama & Olweny, 2013).

Hypothesis 2(H₀₂) stated that liquidity has no significant effect on financial performance. However, the regression results indicated that liquidity had a negative and significant influence on financial performance ($\beta_2 = -0.086, \rho < .05$). The null hypothesis was therefore not accepted, and it was concluded that an increase in liquidity by 0.086 units leads to a decline in financial performance by the same unit. In conformity with the findings, Kaya (2015) proved that low liquid firms are more profitable than highly liquid firms. Similarly, Boadi, Antwi, and Lartey (2013) concluded that high liquidity can be detrimental to the financial performance of an insurance firm since it exposes it to reinvestment risk. In the same way, Mwangi and Murigu (2015) elucidated that there is a negative linkage between the liquidity and insurance firms financial performance. In a similar vein, Moreover, Muriithi (2016) suggested that liquidity negatively impacted on the firm financial performance.

However, the findings are in contrary to authors who argued that liquidity has a positive and significant influence on profitability (Abebe & Abera, 2019; Bawa & Chattha, 2013; Charumathi, 2012; Kipngetch, 2019; Maina, 2016; Mazviona et al., 2017). In addition, Gebremariam (2014) inferred there was no concrete relationship between liquidity and profitability of the 10 insurance firms that operated in the Ethiopian market between 2008 and 2013. The same notion is shared by Alomari and Azzam (2017) who found out that liquidity had no significant effect on the profitability of the targeted insurance firms.

4. CONCLUSION

In conclusion, the study concluded that financial leveraging negatively impacts on the financial performance of insurance firms. The implication of the study is that debt and equity ratios negatively influence financial performance. It could be that the financial leverage strategies are not adequate to enhance the performance of the firms. There is also a possibility that the insurance firms were not better placed to raise good Equity Capital from fixed income securities. Similarly, when moderated with firm size, leverage leads to a further decline in financial performance. Finally, liquidity negatively and significantly influenced the financial performance of insurance firms. As such, an increase in liquidity would bring about a decline in financial performance. It could be that there is limited utilization of asset and liability strategies to improve on the financial performance. Consequently, the insurance firms are not in a position to take advantage of profitable investment opportunities. Further, when moderated with firm size, liquidity has a negative influence on financial performance. It means that firm size does not change the direction of the relationship between the two variables.

5. THEORETICAL IMPLICATIONS

The theoretical implication of this study is that it supports and extends the trade-off theory by confirming that financial leverage might not be adequate to enhance financial performance despite being critical in tax savings associated with the use of debt. Furthermore, the study validated the pecking order theory by confirming that the

effect of financial leverage on shareholders returns is largely dependent on the decomposition of financial leverage. Consequently, it is utmost necessary for the management of insurance firms to reassess the costs and risks associated with financial leverage before embarking on a given financing decision. Further, the findings are in congruent with the pecking order theory that postulates that profitable firms are less inclined to use debt compared to retained earnings and equity.

6. RECOMMENDATIONS

The study recommended for firms to embrace feasible financial leveraging strategies that can boost firm profitability. The focus needs to be on reducing the level of debt in the Equity Capital structure to enable insurance firms achieve better financial performance. Other than that, the insurance companies need to have effective debt management mechanisms so as to elicit an improvement in the financial performance. Finally, the study has brought to fore the negative relationship between liquidity and financial performance of insurance companies. Therefore, it is crucial for insurance firms to conduct effective liquidity management to maximize the value of the company and its financial performance. Emphasis needs to be on ensuring there is an appropriate asset-liability mix in that the total liabilities must not exceed the total assets of a firm. Besides, the firms need policy guidelines for cash flow to maximize the profit potential, while minimizing the liquidity risk in the financial statement. The study used four independent variables liquidity and leverage for a period of nine years. In future a similar study would be appropriate using other firm characteristics like solvency, firm size and firm age as well as the tangibility of assets. A similar study can be done on industry specific factors of insurance sector, and incorporate macroeconomic factors such as inflation, fiscal and monetary policies effected by the government as well as the level of unemployment and the exchange rate.

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