THE LIQUIDITY FACTOR IN THE FINANCIAL PERFORMANCE OF NON LISTED FINANCIAL FIRMS IN KENYA

Abdulkadir Sheikh Ali Banafa

PhD Student Business Administration

JomoKenyatta University of Agriculture and Technology

Dr. Willy Muturi

JomoKenyatta University of Agriculture and Technology

&

Dr. Karanja Ngugi

Kenyatta University, Nairobi Kenya

CITATION: Banafa, A. S, Muturi, W & Ngugi, K (2015). The liquidity factor in the financial performance of non listed financial firms in Kenya. *International Journal of Finance and Accounting 4 (7), 22-44.*

Abstract

Documented evidence available show that non financial firms in Kenya have been recording poor returns and at times make huge losses. Literature available shows that financial performance is known variable on Listed Non financial firms in developed economies. This study sought to establish the effects of liquidity on non financial performance of listed non-financial firms in Kenya. The objective of the study was to assess the effect of liquidity on non financial firms in Kenya. The study also adopted supporting theory for the study objective which addressed the liability management theory. The study used causal research design and the target population constituted 42 listed non - financial firms at the NSE under different categories. The study used secondary panel data contained in the annual reports and financial statements of listed non-financial companies.. The results were presented using descriptive statistics and inferential analysis such as ANOVA. The results of statistical tests shows that liquidity, has positive effect on corporate performance (ROA). The study recommends that financial managers must decide both how much liquidity to hold and the way in which they hold this liquidity. New developments in financial markets such as more liquid derivatives markets complicate these

decisions, and the financial crisis highlights their importance. Based on these findings therefore, liquidity management has become an important research topic in corporate finance.

Keywords: Liquidity management Theory, ROA, ANOVA and Nairobi Stock Exchange.

1.0 INTRODUCTION

The importance of financial decisions cannot be over emphasized since many of the factors that contribute to business failure can be addressed using strategies and financial decisions that drive growth and the attainment of organizational objectives. The finance factor is the main cause of financial distress. Financial decisions result in a given financial structure and suboptimal financing decisions can lead to corporate failure.

To understand how firms in developing countries finance their operations, it is necessary to examine the relationship between liquidity management and its effect on financial structure decisions. Company financing decisions involve a wide range of policy issues. At the macro level, they have implications for capital market development, interest rate and security price determination, and regulation. At the micro level, such decisions affect short term funding and capital structure, corporate governance and company development. Financial institutions in Kenyan financial sector have been on record of posting billion of shillings in profit and this trend has been on the rise yet non- financial companies which are listed in Nairobi Stock Exchange have not been performing well and some actually records huge losses. Business success depends heavily on the ability of financial managers to effectively manage the components of working capital.

1.1 Global Perspective of Liquidity and Performance of Listed Non-Financial Firms

A study by Chatelain (2013) conducted a study on the role of the banking sector performance in the crisis of 2007 using a data set composed of stock prices of 1058 U.S. firms (traded at the

New York Stock Exchange) collected from Datastream and firms' balance sheet information from Compustat during 2007-2009 and found that the near-collapse of Bear Stearns and failure of Lehman Brothers are both characterised as liquidity shocks that had a greater impact on financially fragile non-financial firms. The presented findings show that the improvement in demand expectations positively affected the performances of U.S. non-financial firms in the early months of recovery (Chatelain, 2013).

1.1.2 Financial Performance of Listed Non-Financial Firms in Kenya

Statistics from Capital market Authority (2014) show that the Kenyan economy went through a strong phase of economic growth over the period 2003-2007, as the rate of economic growth accelerated up to 7 per cent. During the same period TFP in manufacturing increased by as much as 20% (World Bank, 2007). Aggregate capital formation increased up to 19.5 per cent, which is high by Kenyan standards, but of course pales in comparison with those of its Asian competitors. And it is a long way away from the long-term target of investments of 30% of GDP.

Otieno (2013) explored the financial structure of listed financial firms in Kenya based on a sample of 29 non financial firms listed on the Nairobi Securities Exchange during the period 2004-2012 using panel data estimation technique. The study results reveal that firm specific factors affecting the capital structure of listed firms in Kenya were among others liquidity of a firm's assets while the macroeconomic factors are economic growth and corporate tax rate.

1.2 Statement of the Problem

Documented evidence available from the World Bank (2014) shows that non financial firms in Kenya are characterized by a decline in financial performance for example, Kenya Airways made a loss of Sh3.4 billion after tax by March 2014, down from Sh7.8 billion it made

in 2013 (Wahito, 2014). Further statistics from the Capital market Authority reveals that market price of the shares declined in the year 2007 – 2013 (CMA, 2013). More evidence available in Kenya for example Furniture firm Hutchings Biemer which was listed on the commercial and services sector, had been suspended for over ten years before being de-listed from the Nairobi Stock Exchange in 2006 (Wandera, 2006). Reports from the Republic of Kenya (RoK) reveal that the low financial performance is a major hindrance in the realization of Vision 2030 leading to a lower economic development and loss of jobs in Kenya which is associated with social injustices (RoK, 2014). It is against this background that this study was carried out.

Information available from the foregoing background reveals that momentous efforts to revive the ailing and liquidating companies have focused on financial restructuring. However managers and practitioners still lack adequate guidance for attaining optimal financing decisions (Kibet, Tenei & Mutwol, 2011) yet many of the problems experienced by the companies put under statutory management were largely attributed to financing (Chebii, Kipchumba & Wasike, 2011). This situation has led to loss of investors' wealth and confidence in the stock market. Studies on the relationship between various financing decisions and performance have produced mixed results hence determination of optimal capital structure is a difficult task that go beyond many theories though many researchers agree that the economic and institutional environment in which the firms operate significantly affect the capital structure of a firm (Owolabi & Inyang, 2013). Appropriate financing/capital structure should be profitable to the firm to enable it meet its obligations. It is against this background that this study was carried out.

1.3 Research Objective

The main objective of the study was to establish the relationship between liquidity and financial performance of listed non-financial firms in Kenya.

1.3.1 Specific Objective

Specifically, the study sought to;

Determine the effect of liquidity on financial performance of listed non-financial firms in Kenya..

1.4 Research Hypothesis

The research hypotheses were;

H_0: Liquidity does not affect financial performance of listed non-financial firms in Kenya.

2.0 The Liability Management Theory

The Liability Management Theory was introduced by Markowitz (1952). The liability management theory holds that financial institutions can meet their liquidity requirements by bidding in the market for additional funds to meet loan demand and deposit withdrawal. The roots of the theory may be traced to the rejuvenation of the federal funds market in 1950s and development of negotiable time certificates of deposit as a major money market instrument.

In the context of growth and in the face of increased competition and decreased profit margin, the need to improve efficiency of operation through competent liquidity management has become imperative. Liquidity management consists of estimating the requirement for funds and meeting them. The potential requirement for funds can be met by asset liquidity and liability liquidity. Asset liquidity depends on near cash assets including funds lent to other banks,

interbank deposits, money market securities and securitisation of loans (Berlin & Mester, 1999). The study leans on the liability management theory by arguing that for firms, the problem is actually a fairly simple one to state.

Liquidity is measured by temporary investments ratio and volatile liability dependency ratio. Since temporary investments are highly liquid, the higher the ratio of temporary investments to total assets the greater the liquidity (Darling, 2006). Temporary investments include investment securities with maturities of one year or less and inter-bank lending. The volatile liability dependency ratio is calculated as volatile liabilities less temporary investment divided by net loans plus long-term securities. The ratio varies inversely with liquidity. The ratio measures the proportion of riskiest assets funded by unstable money that can disappear from the firm overnight (Darling, 2006). One aspect of liquidity risk is the buildup of a prudential level of liquid assets. Another aspect is the management of the Deposit institution's (DI) liability structure to reduce the need for large amounts of liquid assets to meet liability withdrawals. However, excessive use of purchased funds in the liability structure can result in a liquidity crisis if investors lose confidence in the DI and refuse to roll over such funds (Encyclopedia of Finance, 2006). This theory instigates the research hypothesis: Ho: Liquidity does not affect the financial performance of listed non-financial firms in Kenya

2.1 Conceptual Framework

In a broad sense a conceptual framework can be seen as an attempt to define the nature of research (Gay, 1992). The independent variable in this study was liquidity this study sought to establish the impact of the independent variable on the dependent variable which is financial performance of listed non-financial firms.

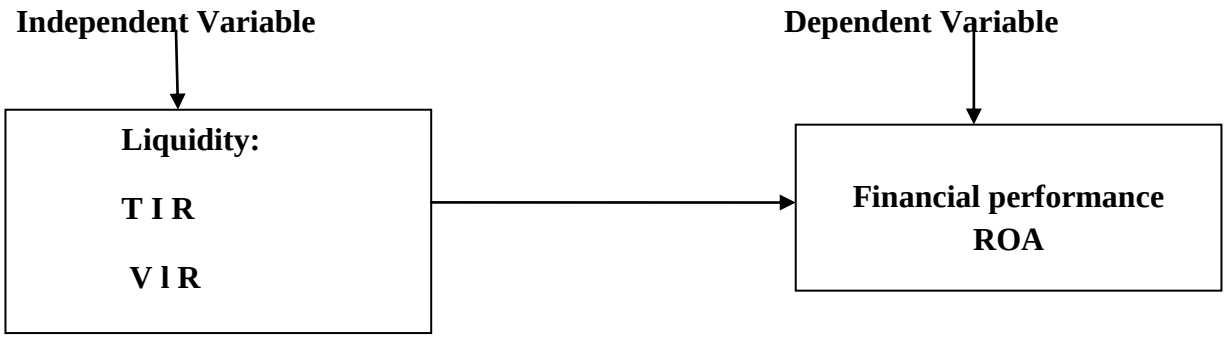


Fig 2.1

2.2 Liquidity

An organization is insolvent when its "going concern" value does not exceed the expected value of its liabilities. In normal times, when non financial markets are strong, it is fairly easy to identify insolvent non financial firms. However, at times of crisis, it is difficult since solvency becomes so co mingled with liquidity issues. Prices of assets become disconnected from estimates of expected cash flows and, instead, reflect the prices that could be obtained if the assets had to be sold tomorrow to the few investors prepared to buy such assets at such time the liquidity price (Davies, 2009).

The mechanisms that explain why liquidity can suddenly evaporate operate through the interaction of funding illiquidity due to maturity mismatches and market illiquidity. As long as a financial institution's assets pay off whenever its debt is due, it cannot suffer from funding liquidity problems even if it is highly levered. However, non financial firms typically have an asset-liability maturity mismatch and hence are exposed to funding liquidity risk. A funding shortage arises when it is prohibitively expensive both to borrow more funds (low funding liquidity) and sell off its assets (low market liquidity). In short, problems only arise if both

funding liquidity dries up high margins/haircuts, restrained lending) and market liquidity evaporates fire sale discounts (Muganga, 2010).

Liargovas and Skanda lis, (2008) argues that firm can use liquid assets to finance its activities and investments when external finance is not available. On the other hand, higher liquidity can allow a firm to deal with unexpected contingencies and to cope with its obligations during periods of low earnings. Almajali et al (2012) found that firm liquidity had significant effect on financial performance of insurance companies. The result suggested that the insurance companies should increase the current assets and decrease current liabilities because the positive relationship between the liquidity and financial performance of Listed Non Financial Firms.

Financial goals drive higher profits, but non-financial company objectives also aid in improving the company as a whole. The non-financial improvements help round out the company's strengths in areas like customer service, production quality and employee satisfaction. These areas create a stronger company as a whole that is able to perform better in the market, increasing profits.

2.3 Measure of Liquidity

Liquidity is measured by temporary investments ratio and volatile liability dependency ratio. Since temporary investments are highly liquid, the higher the ratio of temporary investments to total assets the greater the liquidity (Darling, 2006). Temporary investments include investment securities with maturities of one year or less and inter-bank lending. The volatile liability dependency ratio is calculated as volatile liabilities less temporary investment divided by net loans plus long-term securities. The ratio varies inversely with liquidity. The ratio measures the proportion of riskiest assets funded by unstable money that can disappear from the firm overnight (Darling, 2006).

Table: 2. 1 Operationalisation and Measurement of Study Variables

Variable	Name of Variable	Operationalisation	Measurement	Hypothesis Testing
Independent	Liquidity	T IR	The higher the ratio of temporary investments to total assets the greater the liquidity	Student t-test and 2-tail test
		VLR	Volatile liabilities less temporary investment divided by net loans plus long-term securities. (Darling, 2006).	Student t-test and 2-tail test

Table 2.1 Liquidity Descriptive Statistics

Year	2009	2010	2011	2012	2013
Minimum	0.00	0.00	0.00	0.00	0.00
Maximum	11.00	6.00	9.00	19.00	19.00
Mean	1.7073	1.4878	1.7561	1.9524	2.2619
Std Deviation	1.73557	1.20669	1.82730	3.07589	3.36452
N	42	42	42	42	42

2.4. Regression Analysis

When performing ordinary linear regression with SPSS, in order to conclude with methods for examining the distribution of variables to check for non-normally distributed variables as a first look at checking assumptions in regression. Without verifying that your data have met the regression assumptions, your results may be misleading. We therefore need to test whether data meet the assumptions of linear regression. In particular, we will consider the following assumptions; Linearity - the relationships between the predictors and the outcome variable should be linear; Normality - the errors should be normally distributed - technically normality is necessary only for the t-tests to be valid, estimation of the coefficients only requires that the errors be identically and independently distributed; Homogeneity of variance (homoscedasticity) - the error variance should be constant; Independence - the errors associated with one observation are not correlated with the errors of any other observation and Model specification - the model should be properly specified (including all relevant variables, and excluding irrelevant variables)

Additionally, there are issues that can arise during the analysis that, while strictly speaking are not assumptions of regression, are none the less, of great concern to regression analysts. These issues are; Influence - individual observations that exert undue influence on the coefficients and Collinearity - predictors that are highly collinear, i.e. linearly related, can cause problems in estimating the regression coefficients.

3.0 Diagnostic Tests

Diagnostic tests were performed to make sure that the model chosen was a good model in the sense that all the estimated coefficients had the right signs and were statistically significant on the basis of the *t* and *F* tests (Gujarati (2003).

3.1.1 Multicollinearity, Tolerance and VIF

Multicollinearity in the regression model is detected by testing the R^2 value and analyzing the correlation matrix (Ghozali, 2002).Tolerance values and VIF were also used to measure

multicollinearity (Hair et al., 1998). The tolerance values are a measure of the correlation between the predictor variables and can vary between 0 and 1. The closer to zero the tolerance value is for a variable, the stronger the relationship between this and the other predictor variables (Van Horne, 1998).

From the findings the liquidity variable had a tolerance and VIF value of 1 indicating that there exist a strong relationship between the dependent variable (firms performance) and the independent variables (Liquidity).

3.1.2 Serial Correlation Test

Serial correlation was also carried out to test errors associated with a given time period being carried over into future time periods. A popular test for serial correlation the Durbin-Watson statistic was used. Fisher (1935) and Pitman (1937) view the DW as the test of choice because of (i) its high power; and (ii) its limited size distortions.

As from the findings the DW score was as tabulated below. The DW is approximately 2 .The DW statistic always lie in the 0-4 range, with a value near two indicating no first-order serial correlation. Positive serial correlation is associated with DW values below 2 and negative serial correlation with DW values above 2.

Table: 3. 1 Serial Correlation Test

Study Variable	Durbin-Watson
Liquidity	1.944

3.1.3 Stationarity Test

A test for stationarity was also carried out for all the four independent variables. Stationarity is important for estimation; applying least squares regression on non -stationary variables can give misleading parameter estimates of the relationships between variables. Checking for stationarity can also be important for forecasting. It can help about what kind of processes will have to be built into the model in order to make accurate predictions. (Dielbold & Killian 1999).

The study used Autocorrelation test to show stationarity of the data used as shown below:

Table: 3. 2 Autocorrelations Test

Series:

			Box-Ljung Statistic		
Lag	Autocorrelation	Std. Error[a]	Value	Df	Sig.[b]
1	-.014	.147	.009	1	.925
2	.024	.144	.036	2	.982
3	-.071	.147	.270	3	.966
4	-.020	.138	.291	4	.990
5	-.001	.144	.291	5	.998
6	.048	.135	.416	6	.999
7	-.053	.132	.581	7	.999
8	-.048	.138	.700	8	1.000
9	-.088	.125	1.202	9	.999

10	-.007	.132	1.205	10	1.000
11	-.011	.132	1.212	11	1.000
12	-.050	.128	1.362	12	1.000
13	.053	.128	1.534	13	1.000
14	.074	.121	1.906	14	1.000
15	.008	.125	1.910	15	1.000
16	-.066	.125	2.191	16	1.000

a. The underlying process assumed is independence (white noise).

3.2.1 Test for Normality

A test for stationarity was also carried out for all the four independent variables. Stationarity is important for estimation; applying least squares regression on non -stationary variables can give misleading parameter estimates of the relationships between variables. Checking for stationarity can also be important for forcasting.It can help about what kind of processes will have to be built into the model in order to make accurate predictions. Dielbold & Killian (1999)

Table 3.3 Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Independent variables	.150	180	.000	.924	180	.000

a. Lilliefors Significance Correction

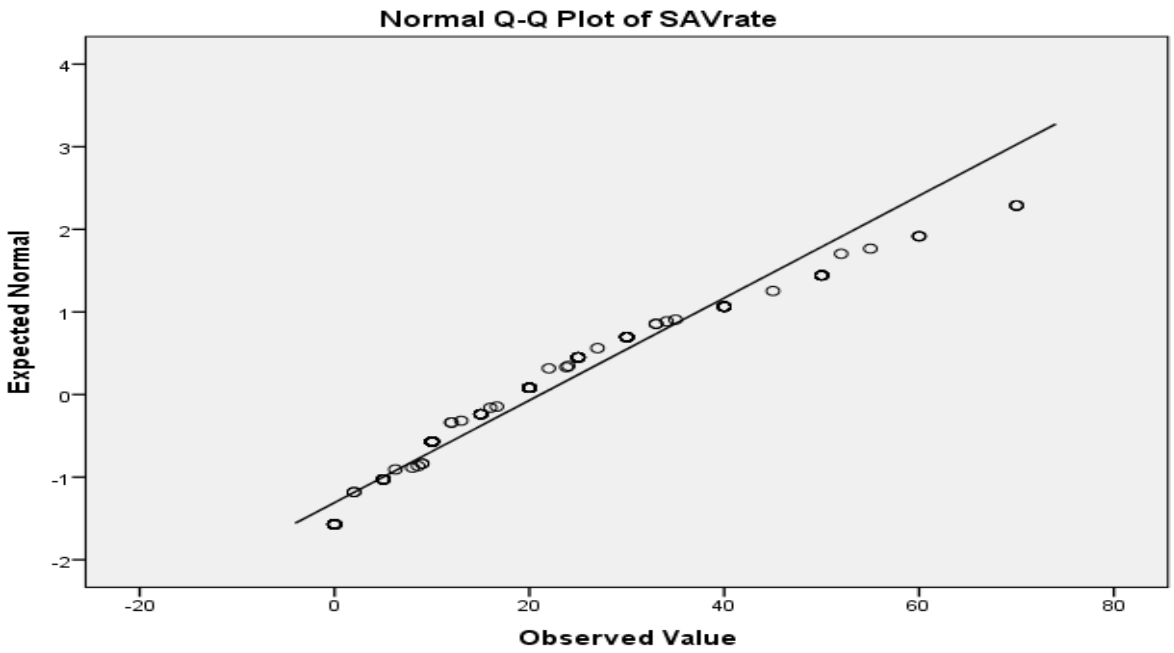


Figure 3.1

4.0 RESULTS AND DISCUSSION

4.1 Descriptive Statistics

4.1.1Liquidity

The liquidity ratios measure the ability of a firm to meet its short term liabilities and reflect the current position of the concern. Short term creditors and banks are mostly concerned with the analysis of short-term financial position of a firm. But the test of liquidity is equally significant to the management in measuring the efficiency with which working capital is being employed in the business. The ratios which reflect the liquidity of a firm are; current ratios; acid test/ quick test ratio; debtors turn over and inventory turnover ratio

4.2 Model Summary[b]

4.3 Descriptive Statistics

Secondary data collection method was used for the study. Data collected were used to calculate the variables used in the analysis. Table 4.1 gives the summary descriptive statistics of the dependent and independent variables of the sample.

Liquidity of the firms for 42 observations had a mean of 9.9474 and standard deviation of 8.69591 and a minimum and maximum value of 1.00 and 40.00 respectively.

Table: 4. 1 Descriptive Statistics 2009-2013 Combined

	N	Minimum	Maximum	Mean	Std. Deviation
Liquidity	42	1.00	40.00	9.9474	8.69591

4.4 Liquidity Regression Analysis

4.4.1 Model Summary[b]

Model: $Y= c + \beta_4 Liq + \varepsilon$

Where: c is the constant,

Can be written as:

$Y = 0.244+0.113X_{1} + e_i$

This means that a unit increase in Liquidity will lead to increase in 0.113 the dependent variable that is ROA. The tolerance value (VIF) is 1 and since the closer to 1 is a variable, the stronger the relationship between the variable and the other predictor variables therefore liquidity has a strong relationship with ROA.The findings concur with the study carried out by Almajali et al (2012) found that firm liquidity had significant effect on financial performance of insurance

companies. The result suggested that the insurance companies should increase the current assets and decrease current liabilities because the positive relationship between the liquidity and financial performance.

From the findings liquidity variable 87.7% proportion of the performance as represented by the R^2.This therefore means that there are other factors not studied in this research that majorly contributes to the firms' performance.

The value of the Durbin-Watson statistic ranges from 0 to 4. As a general rule of thumb, the two variables are uncorrelated since the Durbin-Watson statistic is approximately 2. A value close to 0 indicates strong positive correlation, while a value of 4 indicates strong negative correlation.

The value of Durbin- Waston is 2.222, approximately equal to 2, indicating no serial correlation.

Table: 4. 2 Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.936[a]	.877	.874	.62261	2.222

a. Predictors: (Constant), Liquidity

b. Dependent Variable: Performance ROA

4.4.2 Model Summary

The F critical at 5% level of significance was 4.0847. Since F calculated is less than the F critical (value =284.796), this shows that the model was significant as shown by significance level of 0.000.

Table 4.3: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	110.399	1	110.399	284.796	.000[b]
	Residual	15.506	40	.388		
	Total	125.905	41			

a. Dependent Variable: Performance ROA

b. Predictors: (Constant), Liquidity

From the hypothesis:

H_O: Liquidity does not affect the Performance of listed non-financial firms in Kenya.

Since F calculated is greater than the F critical (value =284.796), we reject the null hypothesis and conclude that Liquidity affects the Performance of listed non-financial firms in Kenya**.**

4.4.3 Simple regression year 2009-2013

The findings indicated that the relationship between the two variables is positive. A unit increase in the liquidity leads to .253 increase in the performance of the firm. The t value = 16.876 at 5% level of significance implying significance.

The tolerance value (VIF) is 1 and since the closer to 1 is a variable, the stronger the relationship between the variable and the other predictor variables therefore liquidity has a strong relationship with performance.

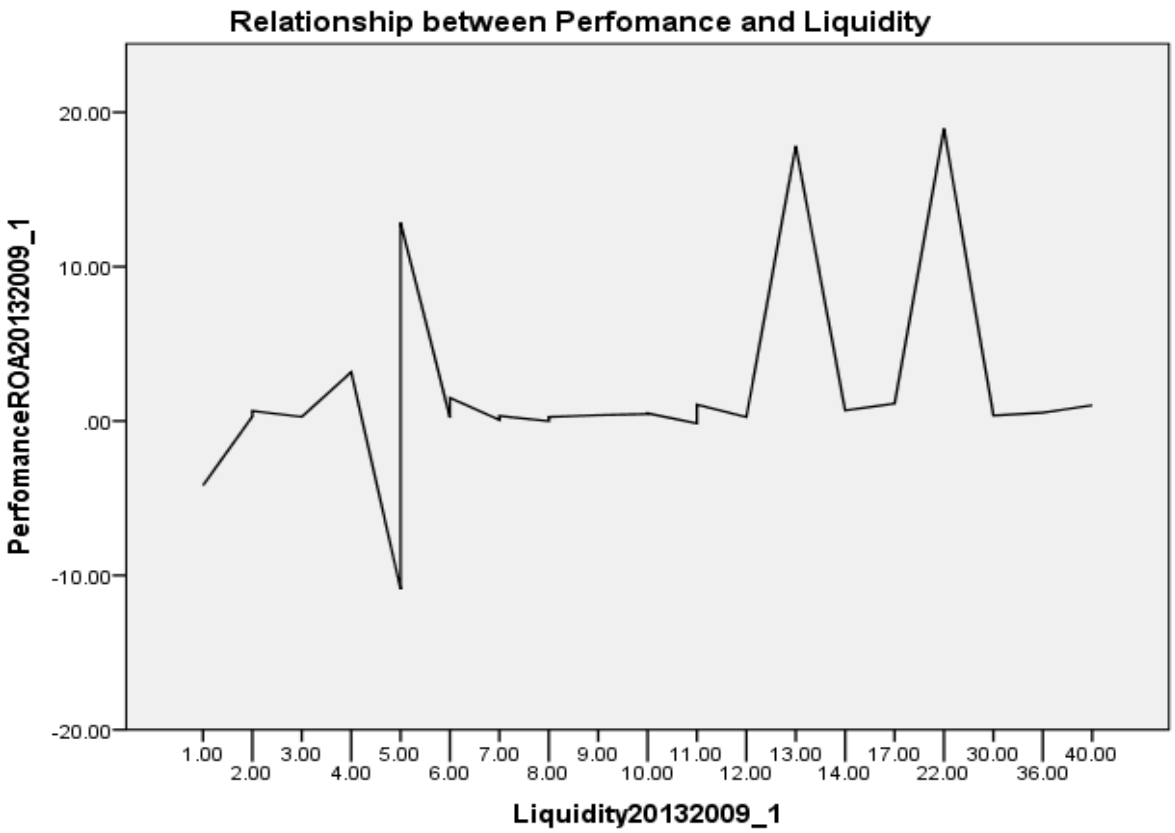
Table 4.4: Simple regression year

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.337	.240		5.575	.000		
	Liquidity20132009	.253	.015	.936	16.876	.000	1.000	1.000

a. Dependent Variable: Performance

The graph below futher shows the relationship between Perfomance and liquidity.



5.0 Summary of Findings

5.1 Liquidity

Liquidity of the firm was found to be positively and significantly related to firms' performance. The study findings are in line with literature review by Campello Giambona, Graham, and Harvey (2011) who did a study on the role cash and credit lines play in minimizing the impact of the crisis on corporate investment. They found out that firms with more cash had their investment plans boosted by greater access to credit lines. That relation was reversed for firms with little or no access to credit lines. The authors report that lack of access to credit lines force firms to choose between saving and investing when outside liquidity is scarce. The overall implication is that access to credit lines was crucial in allowing firms to invest.

5.2 Conclusion

Based on the findings a unit increase in Liquidity will lead to increase in 0.113 the dependent variable that is ROA. The tolerance value (VIF) is 1 and since the closer to 1 is a variable, the stronger the relationship between the variable and the other predictor variables therefore liquidity has a strong relationship with ROA.From the study findings, Liquidity has a positive and significant effects on financial performance and reject the hypothesis- H_0: Liquidity does not affect financial performance of listed non-financial firms in Kenya and conclude that liquidity affects the financial performance of the firm. The findings concur with the study carried out by Almajali et al (2012) found that firm liquidity had significant effect on financial performance of insurance companies

5.3 Recommendations

Since the liquidity of a firm is a function of the amount of funds the firm can raise in a certain time and at specific cost, the sooner a firm can raise a given amount of funds in a certain period of time the more liquid it will be and this will improve performance firms also has to take into consideration local and national factors such as the type, sources and stability of deposit which are primary factors for the local level. The social political and economic level of development should be considered as well. Further the study recommends that financial managers must decide both how much liquidity to hold and the way in which they hold this liquidity. New developments in financial markets such as more liquid derivatives markets complicate these decisions, and the financial crisis highlights their importance. Not surprisingly therefore, liquidity management has become an important research topic in corporate finance.

5.4 Areas for further studies

The study findings show that the R^2 was only 0.877. This means the variables explained 87.7% of factors influencing the financial performance of the firms, therefore there are other factors that should be research on to establish the causes of financial performance in non financial firms in Kenya.

REFERENCES

REFERENCES

AL-Majali, M. (2012). The use of theory reasoned of action to study Information technology. *Journal of Internet Banking and Commerce,*, 16(1), 1-13.

Berlin, M. a. (1999). " Deposits and relationship lending". *Review of Financial Studies, 12(3)*, 579-609.

Chatelain, J. (2013). The Role of the Banking Sector performance in the The Crisisi of 2007. *Journal of business and Finance*,(156(12)), 435-470.

Chebii, E. K. (2011). Relationship between Firms Capital Structure and Dividend Payout Ratios: Companies Listed at Nairobi Stock Exchange,. *Kabarak University First International Conference* .

Darling, G. (2006). *Liquidity Meaurement and Management.* Darling Consulting Group. doi:978.463.0400

Davis, H. (1999). Financial Regulation: Why Bother? Society of Business Economists Lecture. *Financial Services Authority, mimeo*.

Markowitz, H. (1952). Portfolio section. *Journal of Finance, 7*, 77-91.

Otieno, A. (2013). Capital Structure of listed firms in Kenya: The Case of Non Finacial Firms. Unpublished MBA Thesis-Arts in Economics, University of Nairobi.

Owolabi, S. a. (2013). International pragmatic review and assessment of Capital structure determinants. *Kuwait Chapter of Arabian Journal of Business and Management Review, 2*(6).

World Bank. (2014). *World Economic Forum.* World Bank.

Gujarati, D. (2003). *Basic Econometrics.* New York: McGraw Hill.

Field, A. (2013). *Discovering statistics using IBM SPSS Statistics:* (94th ed.). London: Sage

Ghozali, I. (2002). Aplkasi Analisis Multrivariat dengan program SPSS. *Semarang: Badan penerbit Universitas Diponegoro*.

Wahito, M. (2014). Profit turbulence not over yet for KQ. Nairobi, Kenya: Capital Digital Media. Capital Group Limited. Business Tech.

Wandera, N. (2006, April). *Hutchings Biemer Heads for De-Listing.* Nairobi: The Standard News Paper.

Mwega, F. (2009). *Global financial crisis discussion series- paper 7 Kenya.* London: Overseas Development Institute.

Kenya, R. o.K (2014). *Annual Report.* Nairobi: Kenya Gazette.