EFFECT OF LIQUIDITY ON THE FINANCIAL PERFORMANCE OF FINANCIAL INSTITUTIONS LISTED IN THE NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

This is to declare that this research project is my original work that has not been presented to any other university or institution of Higher Learning for an award of a degree.

JOAN NYABATE OMESA **D61/ 67391 / 2013**

Signature …….. Date …….

This is to declare that this project has been submitted for examination with my approval as the University Supervisor.

DR. KENNEDY OKIRO

Signature …….. Date …….

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DEDICATION

This project is dedicated to my father Shem Ondari, my mother Roseline Omesa, brothers Sammy, Brian and Hillary, my lovely sister Eunice and finally my fiancé Byron and my son Malik. I love you all and may God's blessings be showered upon you all.

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BOU	Bank of Uganda
BSD	Bank Supervision Department
CAMEL	Capital Adequacy, Asset Quality, Management, Earnings and Liquidity
CBK	Central Bank of Kenya
CCC	Cash Conversion Cycle
CMA	Capital Markets Authority
DTMFI	Deposit Taking Microfinance Institutions
FTSE	Financial Times Stock Exchange
GDP	Gross Domestic Product
IRA	Insurance Regulatory Authority
MFI	Microfinance Institutions
NASI	NSE All Share Index
NSE	Nairobi Securities Exchange
PBT	Profit before Tax
ROA	Return on Assets
ROCE	Return on Capital Employed
ROE	Return on Equity
SACCO	Savings and Credit Co-operative
UAE	United Arab Emirates

ABSTRACT

Financial institutions are faced with the problem of how to select and identify the optimum point or the level at which they can maintain its liquid assets in order to optimize its return. This problem becomes more pronounced as good numbers of institutions especially financial companies are engrossed with profit and performance maximization and as such they tend to neglect the importance of liquidity management. Towards this end, the research sought to establish the effect of liquidity on the financial performance of financial institutions listed in the Nairobi Securities Exchange. The study adopted descriptive research design where secondary data was retrieved from the balance sheets, income statements and notes of 19 financial institutions in the NSE for period covering 2010-2014. A regression model was developed to determine the relationship between the dependent variable (Financial performance) and independent variables included liquidity while capital structure was used as the control variable. Pearson's correlation and regression analysis were used for the analysis. The results indicated that the relationship between liquidity and financial performance is weak with an adjusted R^2 of 55.17% and also that capital structure had a significant relationship with ROA while liquidity had an insignificant relationship. The results further show that there is a negative relationship between NSE listed financial institutions' cash position indicator with ROA. This might be explained with the view that with inadequate cash position, then the firm will borrow at possible high interest rate costs and thus reduce the firm's financial performance. The study concluded that liquidity management is not a contributor alone of the firm's financial performance and there exist other variable that will influence ROA. However, it is important for a firm to understand the effect of liquidity components on the firm's financial performance and also undertake deliberate measures to optimize its liquidity level. The study also recommends a further study on the role of liquidity on a firm's financial performance by incorporating more liquidity variables and control variables.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Liquidity entails meeting obligations as they fall due and striking a balance between the current assets and current liabilities. Jensen (1986) observes that companies are strained when their level of liquidity is low and have negative working capital. This is because either inadequate liquidity or excess liquidity may be injurious to the smooth operations of the organization (Janglani and Sandhar, 2013). Almeida et al (2002) proposed a theory of corporate liquidity demand that is based on the assumption that choices regarding liquidity will depend on firms' access to capital markets and the importance of future investment to the firms. The model predicts that financially constrained firms will save a positive fraction of incremental cash flows, while unconstrained ones will not. The cost incurred in a cash shortage is higher for firms with a larger investment opportunity set due to the expected losses that result from giving up valuable investment opportunities. A liquid company takes advantage of available investments, cash discounts and lower interest charges on borrowings. Hence there is a relationship between cash holdings and investment opportunity and thus financial performance.

The difficulties experienced by some banks and other financial institutions during the financial crisis were due to lapses in basic principles of liquidity management. In response, as the foundation of its liquidity framework, the Committee in 2008 published Principles for Sound Liquidity Risk Management and Supervision ("Sound Principles"). Liquidity is the ability of a bank to fund increases in assets and meet obligations as they come due, without incurring unacceptable losses (Basel Committee on Banking Supervision, 2013). The liquidity of an asset depends on the underlying stress scenario, the volume to be monetized and the timeframe considered. Therefore, efficient and effective liquidity management is crucial if the survival and

prosperity of firms is to be assured. According to the Banking Act (2014) and CBK Prudential Guideline (2013), an institution shall maintain such minimum holding of liquid assets as the Central Bank may from time to time determine. Kenyan banks are required to maintain a statutory minimum of twenty per cent (20%) of all its deposit liabilities, matured and short term liabilities in liquid assets. Liquidity Ratio is determined by net liquid assets and total short term liabilities.

Kenya's financial system is relatively well developed and sound. The major elements of a well-developed financial system have been put in place, including the creation of the first credit-reference bureau in 2010, and credit has grown rapidly in recent years, but the financial sector has still been unable to reach its full potential in supporting the allocation of economic resources across the economy. The performance of the banking sector and other financial sectors, in the past years have been overall sound despite the global crisis thanks, in part, to proactive supervision by the regulators who have heightened their supervisory activities to detect any immediate stress present in the system. According to the Kenya Financial Stability Report (2013), all the subsectors, which include banking, pension, insurance, SACCOs, investment companies in the finance sector in Kenya recorded an improvement in the performance of capital adequacy, asset quality, management, earnings and liquidity (CAMEL).

1.1.1 Liquidity of Financial Institutions

Bhunia (2010) refers to liquidity as the ability of a firm to meet its short term obligations. According to Mahavidyalaya et al (2010) the term liquidity refers to the capability of a firm to meet short term financial obligations by converting the short term assets into cash without suffering any loss. According to Basel Committee on Banking Supervision (2013), assets are considered to be high-quality liquid assets if they can be easily and immediately converted into

cash at little or no loss of value. On the other hand, Dalgaard (2009) describes liquidity as the degree to which an asset or security can be bought or sold in the market without affecting the asset's price. He further explains that a liquid asset is characterized by a high level of trading activity and plays a vital role in the functioning of financial markets. Markets are liquid when those who have assets holdings can sell them at prices that do not involve considerable losses so as to gain the finance they need to fulfill other commitments (Amihud, 2002). Liquidity plays a crucial role in the successful functioning of a business firm. A company should ensure that it does not suffer from lack-of or excess liquidity to meet its short-term compulsions. A study of liquidity is of major importance to both the internal and the external analysts because of its close relationship with day-to-day operations of a business (Bhunia et al, 2011).

Bolek et al (2012) suggested that liquidity can be defined in three contexts; where they distinguish the asset, asset-equity, and cash aspects of financial liquidity. The financial liquidity of company's assets – is the ability to convert assets into cash in the shortest possible time, at the lowest possible costs and without losing their value. Appropriate resources of liquid elements of the assets, including cash, are the enterprise's protection against the loss of financial liquidity. According to Bolek et al(2012) asset-equity aspect of financial liquidity of an enterprise as the ability to settle its liabilities (short-term ones, payable within one year) on time through liquidizing possessed high-liquidity assets (current assets). Financial liquidity of an enterprise is better when larger part of its assets is high-liquidity elements, and worse when the opposite is true. Therefore, if an enterprise wants to maintain high level of financial liquidity, it must possess a large share of cash and high liquidity assets and small share of short-term liabilities. Bolek et al (2012) also stated that operating liquidity is the level of liquidity required to meet an institution's daily cash outflow commitments. Operating requirements are met through

asset/liability management techniques for controlling cash flows, supplemented by assets readily convertible to cash or by an institution's ability to borrow. Liquidity requirements of a firm depends on the peculiar nature of the firm and there is no specific rule on determining the optimal level of liquidity that a company can maintain in order to ensure positive impact on its financial performance. Liquidity entails meeting obligations as they fall due and striking a balance between the current assets and current liabilities. A liquid company takes advantage of available investments, cash discounts and lower interest charges on borrowings.

The liquidity ratio for banks is computed as stipulated in Liquidity Management Prudential Guideline, (Prudential Guidelines, 2013) as Net Liquid Assets/Total short-term liabilities. Other ratios reflecting the liquidity position of a company as identified by Mahavidyalaya et al. (2010) and Devraj (2014) include the current ratios which is the ratio of current assets to current liabilities, quick ratio or acid test ratio and it's the ratio of quick assets to current liabilities, absolute liquid ratio/ cash ratio which is the cash and near cash is the most liquid asset. Although the quick and current ratios are similar, the quick ratio provides a more accurate assessment of a business's ability to pay its current liabilities. The quick ratio cuts out all but the most liquid of current assets. Inventory is the most notable omission, because it is not as speedily convertible to cash. Absolute liquid ratio is more accurate test of liquidity than current ratio and liquid ratio (Bhunia et al., 2011) and the Cash Conversion Cycle (CCC).

1.1.2 Financial Performance of Financial Institutions

The issue of financial performance in financial institutions has been widely discussed in the scientific literature, it has also been considered in a number of theoretical and empirical researches of different kinds. According to Flemings (2004), financial institutions such as insurance companies, banks, securities and credit unions have very different ways of reporting

financial information. Matolcsy& Wright (2011) measured firm performance by return on assets which is EBIT / average total assets, return on equity that is net profit / equity, change in market value of equity, change in market value of equity, adjusted for dividends and risk. Yasser et al. (2011) used return on equity and profit margin for the measurement of firm performance. Market based measures of companies' performance were done by Shah et al. (2011) by market value of equity divided by book value of equity and Tobin's Q (market value of equity plus book value of debt/total of assets minus in book value), whereas financial reporting perspective was measured by Return On Equity (ROE) and return on investment which is net result plus interest over equity plus total debt. Bhagat& Black (1999) measured dependent variable firm performance by Tobin's Q, return on assets (operating income/assets), turnover ratio (sales/assets), operating margin (operating income/sales), and sales per employee and also by growth of assets, sales, operating income, employees and cash flows.

Obudho (2014) refers Return on Assets (ROA) to the amount of net income returned as a percentage of total assets. Bourke (1989) was one of the first who discovered in his research that exactly the internal factors of financial performance for financial institutions especially banks, such as net income before and after tax against total assets and capital and reserves factors, have the greatest impact on profitability and performance indicators. Financial performance of financial institutions is usually expressed as a function of internal and external factors. The financial statement variables which determine performance include: expense management, loan composition and credit, composition of deposits, market interest rates, earning and operating efficiency, changes in capital and liquidity management. The non-financial statement variables which determine financial performance include number of branches, company size and location. The external determinants include: financial regulation, competitive condition, concentration,

market share, market growth and ownership.

1.1.3 Impact of liquidity on the financial performance of Financial Institutions

A company tries to achieve the twin conflicting objectives of liquidity and improved financial performance by selecting a diversified and balanced asset portfolio within the framework of the regulators. Financial performance and liquidity are important issues that the management of financial institutions should take in to account as their most important duties. Richard and Laughlin (1980), suggested that the importance of liquidity status for investors and managers for evaluating company future, estimating investing risk and return and stock price in one hand and the necessity of removing weaknesses and defects of traditional liquidity indices (current and liquid ratio) on the other hand persuade the financial researchers. The significance of liquidity to company performance might lead to the conclusion that it determines the financial performance level of company.

Profitability is improved for banks that hold some liquid assets, however, there is a point at which holding further liquid assets diminishes a banks' profitability, all else equal (Bernanke 2008). Such findings are conceptually in line with relevant literatures and are consistent with the any increase in the financial institution's liquidity. Likewise, there is a similar estimated benefit to holding more liquid assets when economic conditions deteriorate. The ultimate objective of any commercial bank is to maximize the financial performance. But, preserving liquidity is equally an important objective too. The dilemma that is faced by the management of financial institution is that increasing profits at the cost of liquidity can bring serious problems to the firms. Therefore, there must be a trade-off between these two objectives of the firms (Sufian and Chong, 2009). One objective should not be at cost of the other because both have their importance. If we do not care about profit, we cannot survive for a longer period. On the other

hand, if we do not care about liquidity, we may face the problem of insolvency or bankruptcy. For these reasons liquidity management in financial institution should be given proper consideration and will ultimately affect the financial performance.

There are several theories which have been developed to study the effect of liquidity on financial performance. According to Chandra (2001), normally a high liquidity is considered to be a sign of financial strength, however according to some authors such as Neto (2003), a high liquidity can be as undesirable as a low this is because the financial institutions might be holding the excess liquidity that could be used for investments to increase returns and income. This would be a consequence of the fact that current assets are usually the less profitable than the fixed assets. It means that the money invested in current assets generates less returns than fixed assets, representing thus an opportunity cost. Besides that, the amounts employed in current assets generate additional costs for maintenance, reducing thus the financial performance of the company. Arnold (2008) on the other hand, points that holding cash also provides some advantages, such as, providing the payment for daily expenses, such as salaries, materials and taxes, due to the fact that future cash flows are uncertain, holding cash gives a safety margin for eventual downturns. Also the ownership of cash guarantees the undertaking of highly profitable investments that demands immediate payment. Thus it is an important task for the financial manager to achieve the appropriate balance between the adequate liquidity and a reasonable return for a company.

1.1.4 Financial Institutions Listed in the Nairobi Securities Exchange

The Nairobi Securities Exchange (NSE) was constituted in 1954 as a voluntary association of stockbrokers registered under the Societies Act. The Capital Markets Authority of Kenya through the Capital Markets Act was established to oversee the orderly development of Kenya's

capital markets and thus regulates the(NSE).It has the mandate of providing a trading platform for listed securities and overseeing its member firms. In September 2011 the NSE converted from a company limited by guarantee to a company limited by shares and adopted a new Memorandum and Articles of Association reflecting the change. In 2008, the NSE All Share Index (NASI) was introduced as an overall indicator of market performance. The Index incorporates all the traded shares of the day. In November 2011 the FTSE NSE Kenya 15 and FTSE NSE Kenya 25 Indices were launched. The launch of the indices was the result of an extensive market consultation process with local asset owners and fund managers and reflects the growing interest in new domestic investment and diversification opportunities in the East African region.

Shares traded in the NSE are from different sectors, financial sector companies include, banking, investment, and insurance. Others include: manufacturing and allied, telecommunication and technology, agricultural, automobiles and accessories, commercial and services, construction and allied growth and lastly energy and petroleum. NSE has listed 64 institutions, the banking sector has 11 institutions, and insurance sector has 6 institutions while investment sector has 3 institutions. According to NSE financial report trading performance at the Nairobi Securities Exchange in 2013 improved compared to the previous financial year, 2011/2012. The NSE 20 Share Index closed the year at 4,598 points gaining 24 percent from its opening level in July 2012, reflecting the increase in share prices and gains made by investors in our market. Market capitalization also increased by Kshs570 billion during the year to close at Kshs1.3 trillion, (a 54 percent increase) a mark once realized in 2008. The CMA board has developed a risk management framework for the management of the authority's short, medium and long-term liquidity requirements thereby ensuring that all financial liabilities are settled as they fall due.

The Authority manages liquidity risk by continuously reviewing forecasts and actual cash flows, and maintaining banking facilities to cover any shortfalls.

The industry's gross written insurance premiums amounted to KES 119.69 billion by the end of the third quarter of 2014. This represented an increase of 20.4% from KES 99.44 billion recorded by the end of the same period in the previous year. This growth in premiums in the Kenyan insurance market is supported by increasing awareness on the importance of insurance and increasingly innovative products and distribution channels amongst others (IRA, 2014). The banking sector registered enhanced performance during the period ended December 2013. The sector recorded a 16.6 percent growth in pre-tax profits during the year. Total net assets and total deposits held by commercial banks recorded growth rates of 16.0 percent and 13.3 percent respectively. The sector also recorded strong capitalization levels as a result of retention of profits and additional capital injection. The banking sector's average liquidity in the twelve months to December 2013 was above the statutory minimum requirement of 20 %, with all the banks meeting the minimum requirement. Liquidity ratio was 38.6 percent as at December 2013 compared to 41.9 percent registered in 2012. The decline in liquidity ratio is attributable to increased lending in 2013 as evidenced by the increase in loans to deposits ratio from 77.9% to 81.6% over the same period (BSD Report, 2013).This study seeks to establish the relationship between liquidity and financial performance of financial institutions listed in the Nairobi Securities Exchange.

1.2 Research Problem

As uncertainty led funding sources to evaporate during the recent financial crises, many financial institutions especially banks quickly found themselves short on cash to cover their obligations as they came due (Bordeleau,2010) . In the aftermath of the crisis, there was a general sense that

the institutions had not fully appreciated the importance of liquidity management and the implications of such risk to the firms themselves, as well as the wider financial system. Liquid assets such as cash and government securities generally have a relatively low return, holding them can impose an opportunity cost in a financial institution. In the absence of regulation, it is reasonable to expect companies will hold liquid assets to the extent they help to maximize the firm's financial performance and profitability. Beyond this, policy makers have the option to require larger holdings of liquid assets, for instance, if it is seen as a benefit to the stability of the overall financial system. The problem becomes how to select or identify the optimum point or the level at which a financial institution can maintain its liquid assets in order to optimize its return. This problem becomes more pronounced as good numbers of institutions especially financial companies are engrossed with profit and performance maximization and as such they tend to neglect the importance of liquidity management.

Local study undertaken by Akhwale (2014) researched on the relationship between liquidity and profitability for companies listed at the NSE. The study concludes that there exists a significant relationship between liquidity and profitability of listed firms in Kenya. This study excluded listed companies in the banking, insurance and investment sectors due to the level of regulation. However, the study recommends further research for these sectors to confirm if there is indeed a relationship between liquidity and profitability in these firms. Kimondo (2014) on the other hand, carried out a study to investigate the relationship between liquidity and profitability of nonfinancial companies listed in the NSE. Findings established a significant weak positive relationship between liquidity and profitability. The results are not generalizable to non-listed companies and are not valid for the financial companies. Maaka (2013) carried out a study on relationship between liquidity risk and financial performance in commercial banks in Kenya. The

findings of the study were that profitability of the commercial bank in Kenya is negatively affected due to increase in the liquidity gap and leverage. Study recommends further research on other financial sectors, for example, insurance companies. Mathuva (2009) found a highly significant positive relationship between the time it takes the firm to pay its creditors (average payment period) and profitability. Maina (2011) found the relationship between liquidity and profitability was weak and also that all the independent variables had a significant relationship with Return on assets except the quick ratio and cash conversion cycle. The results further showed that there was a strong negative relationship between a firms leverage and quick ratio with its Return on assets. Wambu (2013) found out that there was a positive relationship between profitability and liquidity however, the coefficients from the study were not significant.

The theoretical review on the relationship between liquidity and financial performance is very clear that a negative relationship is expected between the two variables. However empirical evidence shows mixed results with some showing negative relationship and others showing positive or no relationship. Because of the inconsistencies in the previous studies and absence of a study conducted exclusively for financial institutions in the NSE on the same topic, this study seeked to find out the relationship between liquidity and financial performance in Financial Institutions listed in the NSE and whether performance is better in those institutions which hold high or low levels of liquidity. The research gap is to be filled by studying the financial institutions listed in the NSE. Using the information obtained from the study, the management of the listed companies especially financial institutions which are highly regulated would be able to identify and develop appropriate liquidity management policies that would enhance their financial performance. The study sought to answer the research question, does liquidity have an effect on the financial institutions for financial companies listed in the Nairobi Securities

Exchange?

1.3 Research Objective

To establish the effect of liquidity on the financial performance of financial institutions listed in the Nairobi Securities Exchange.

1.4 Value of the Study

The study findings will benefit management and staff of financial institutions who will gain understanding into how their institutions can effectively manage their liquidity by coming up with appropriate practices for optimal liquidity levels. It is also of importance to the management of companies as they will be able to use the information as a base for making decisions, understand its importance and observe the trend of the impact of liquidity on financial performance. In addition, the study will offer an understanding on the importance of adopting a fitting liquidity practices and thus offer competitive advantage to the firms. The research will also contribute to the literature on liquidity and financial performance especially in emerging countries like Kenya. It is hoped that the findings will be valuable to the academicians, who may find useful research gaps that may stimulate interest in further research in future. The study will add to the existing body of knowledge on liquidity and how liquidity impacts on financial performance and recommendations made will be of significance to those who may wish to carry out further studies in the area.

The understanding of the liquidity and its impact on financial performance in financial institutions will help policy makers – governments and other stakeholders – to design targeted policies and programs that will actively stimulate the growth and sustainability of the financial institutions in the country, as well as help those policy makers to support, encourage, and

promote the establishment of appropriate policies to guide the firms. Lastly, the study will also enable the investors to know the kind of information to be disclosed by firms on the financial statements as pertains to liquidity and financial performance.

CHAPTER TWO: LITERATURE REVIEW

2.1Introduction

This chapter reviews literature relating to liquidity and financial performance. The literature review has been organized in the following sections. First section covers the theoretical framework underlying the study, liquidity and a firm's financial performance. The second section covers the empirical studies on the subject area covered and summary of the section.

2.2Theoretical Review

One of the objective of a financial institution is to create liquidity while remaining financially sound. However, there are a number of dimensions in the way banks and financial institutions concretely manage their liquidity. Liquidity theories include where it is exactly implemented in the organization, how liquidity is measured and monitored, and the measures that institutions can take to prevent or tackle a liquidity shortage. These competing theories include: Liquidity Preference Theory, Shiftability Theory and Commercial Loan Theory.

2.2.1Liquidity Preference Theory

Bibow (2005) described Keynes' liquidity preference theory as individuals' value money for both the transaction of current business and its use as a store of wealth. Thus, they will sacrifice the ability to earn interest on money that they want to spend in the present, and that they want to have it on hand as a precaution. On the other hand, when interest rates increase, they become willing to hold less money for these purposes in order to secure a profit. Elgar (1999) stated that one needs money because one has expenditure plans to finance, or is speculating on the future path of the interest rate, or, finally, because one is uncertain about what the future may have in store so it is advisable to hold some fraction of one's resources in the form of pure purchasing power.

Keynes (1936) in his study "The general Theory of employment, interest and money" identified three reasons why liquidity is important, the speculative motive, the precautions motive and the transaction motive. Money needed by financial institutions for their day to day activities in order to complete economic transactions is known as the demand for money for transactions motive and is usually dependent on the size of the income, time gap between the receipts of income and spending habits. Precautionary motive on the other hand is when financial institutions want to keep some liquid money to meet some unforeseen emergencies, contingencies and accidents while speculative motive is when the financial institutions keep cash with them to take advantage of the changes in the prices of bonds and securities. The banks' liquidity preference approach suggests that banks pursue active balance sheet policies instead of passively accommodating the demand for credit.

2.2.2Commercial Loan Theory

This theory has been subjected to various criticisms by Dodds (1982) and Nwankwo (1992). The commercial loan theory of credit became obsolete both because of its conceptual flaws and its impracticality. From the various points of view, the major limitation is that the theory is inconsistent with the demands of economic development especially for developing countries since it excludes long term loans which are the engine of growth. The theory also emphasizes the maturity structure of bank assets (loan and investments) and not necessarily the marketability or the shiftability of the assets. Also, the theory assumes that repayment from the self-liquidating assets of the bank would be sufficient to provide for liquidity. This ignores the fact that seasonal deposit withdrawals and meeting credit request could affect the liquidity position adversely. Moreover, the theory fails to reflect in the normal stability of demand deposits in the liquidity consideration. This obvious view may eventually impact on the liquidity position of the bank.

A critical underlying assumption of the theory held that short-term commercial loans were desirable because they would be repaid with income resulting from the commercial transaction financed by the loan. It was realized that this assumption would certainly not hold during a general financial crisis even if bank loan portfolios did conform to theoretical standards, for in most commercial transactions the purchaser of goods sold by the original borrower had to depend to a significant extent on bank credit. Without continued general credit availability, therefore, even short-term loans backing transactions involving real goods would turn illiquid. Rigid adherence to the orthodox doctrine was, furthermore, a practical impossibility if banks were to play a role in the nation's economic development (Casu (2006)). Moreover, the practice of continually renewing short- term notes forth purpose of supporting long-term capital projects proved unacceptable. The failure or inability of banks to tailor loan arrangements to the conditions encountered with longer-term uses in fact contributed to the demise of the practice.

2.2.3Shiftability Theory

Formally developed by Harold G, Moulton in 1915, the shiftability theory held that banks could most effectively protect themselves against massive deposit withdrawals by holding, as a form of liquidity reserve, credit instruments for which there existed a ready secondary market. Included in this liquidity reserve were commercial paper, prime banker's acceptances and, most importantly as it turned out, treasury bills. Under normal conditions all these instruments met the tests of marketability and, because of their short terms to maturity, capital certainty. A major defect in the shiftability theory was discovered similar to the one that led to the abandonment of the commercial loan theory of credit, namely that in times of general crisis the effectiveness of secondary reserve assets as a source of liquidity vanishes for lack of a market (Casu et al, 2006). The role of the central bank as lender of last resort gained new prominence, and ultimately

liquidity was perceived to rest outside the banking system.

Further- more, the soundness of the banking system came to be identified more closely with the state of health of the rest of the economy, since business conditions had a direct influence on the cash flows, and thus the re- payment capabilities, of bank borrowers. The shiftability theory survived these realizations under a modified form that included the idea of ultimate liquidity in bank loans resting with shiftability to the Federal Reserve Banks. Under this institutional scheme, the liquidity concerns of banks were partially returned to the loan portfolio, where maintenance of quality assets that could meet the test of intrinsic soundness was paramount (Allen and Gale, 2004).

2.3Determinants of Liquidity in Financial Institutions

The liquidity of a company is influenced by many factors. Some are firm specific while others are market specific. Some of the factors that influence the liquidity of financial institutions include, macroeconomic factors, asset quality and capital structure among others.

2.3.1Asset Quality

According to Mwangi (2012), the solvency of financial institutions is typically at risk when their assets become impaired, so it is important to monitor indicators of the quality of their assets in terms of overexposure to specific risks trends in non-performing loans and the health and profitability of borrowers. Credit risk is inherent in lending which is the major banking business. It arises when a borrower defaults on the loan payment agreement. A financial institution whose borrower defaults on their payment may face cash flow problems, which eventually affects its liquidity position. Ultimately, this negatively impacts on the profitability and capital through extra specific provisions for bad debts (BOU, 2002).

Initially solvent financial institutions may be driven towards closure by management of short term liquidity. Indicators should cover funding sources and capture large maturity mismatches. The mismatching and controlled mismatching of the maturities and interest rate of assets and liabilities is fundamental to the management of financial institutions. It is unusual for microfinance to be completely matched since business transacted is often of uncertain term and of different types. An unmatched position potential enhance profitability but also increase the risk of losses (The Uganda Banker, June 2001).

2.3.2Macroeconomic Factors

After the global financial crisis the financial institutions started to consider the liquidity problems and its importance for the overall performance of financial markets (Muhammad et al, 2013). Valla and Saes- Escorbiac (2006) studied the liquidity measures of English banks and found that profitability, loan growth, GDP and monetary policy interest rate has a negative impact on bank's liquidity. Bunda and Desquilbet (2008) studied the liquidity risk measures in emerging markets and found that bank size, profitability and financial crisis negatively affect liquidity while capital adequacy, inflation and supply of liquid assets were positively associated with liquidity. Lucchetta (2007) studied the effect of interest rate on risk and liquidity management of the banks of European Union. The results found that interbank rate and bank size positively determine the liquidity and monetary policy interest rate is negatively linked with level of liquidity.

Rauch et al. (2010) studied the determinants of liquidity of German state-owned saving banks and found that bank size, profitability and monetary policy interest is negatively associated while liquidity lag value is positively associated. The studies mentioned above recommend that bank's

liquidity is determined mainly by bank specific and macroeconomic variables. Anecdotal evidence from the financial press indicates that investors generally believe that monetary policy and macroeconomic events have a large influence on the volatility of financial performance. A strong and profitable financial system promotes broader financial stability and increases the economy's resilience to adverse macroeconomic shocks. At the same time, changes in macroeconomic conditions affect banks' performance and financial health. It is therefore of importance for the authorities responsible for the maintenance of financial and monetary stability to quantify the linkages between macroeconomic developments and the financial sector.

2.3.3Capital Structure

The recent global financial crisis has revealed the necessity to further improve capital adequacy and liquidity risk management, governance and to enhance the transparency of the operations of credit institutions. While encountering a variety of risks in their operations, banks may incur loss that primarily is compensated from the bank's capital, therefore the management of capital adequacy risk of banks must be given particular attention. Accordingly, the accrued reserves of liquid assets must be sufficient to withstand adverse liquidity shocks, as inadequate liquidity of the bank may lead the bank to collapse in exactly the same way as a shortage of capital (Žuk-Butkuvienė et al, 2013).

Uremadu and Efobi (2012) analyzed the importance of capital structure to corporate financial stability, growth and adequate returns and liquidity cannot be undermined. He concluded in his research with the help of multiple regression model that increasing proportion of both short term debt and long term debt on the overall liability of the firm reduces corporate profitability. He also revealed that profitability and performance of firm depend on proper management and composition of their capital structure. Sibilkov (2009) examined that asset liquidity has major

influence on capital formation. He concluded in his research with the help of multiple regression model that liquidity of assets has been positive relation with leverage. He demonstrated that lower assets liquidity reduces the cost of debt and for that reason companies use more debt. He gave details that the relation between secured debt and asset liquidity is safe and positive while the unsecured debt is negatively correlated with firm's liquidity.

2.4 Empirical Studies

Various studies have been carried out to determine the relationship between liquidity and financial performance in different sectors of the economy and also internationally. Some of the empirical studies are summarized below.

2.4.1International Studies

Eljelly (2004) empirically examined the relationship between profitability and liquidity, as measured by current ratio and cash gap on a sample of 929 joint stock companies in Saudi Arabia. Using correlation and regression analysis, he found that there is a significant negative relationship between the firm profitability and liquidity level, as measured by current ratio. This relationship is more pronounced for firms with high current ratios and long cash conversion cycles. At the industry level, however, he found that the cash conversion cycle or the cash gap is of more importance as a measure of liquidity than current ratio that affects profitability. Ehiedu (2014) conducted a study on the impact of liquidity on profitability of some selected companies in Nigeria and concluded that current ratio has a significant positive correlation with profitability. The researcher believed that the reason for this positive relationship between current ratio and profitability is simply because idle funds, especially when they are borrowed, generate profit and less costs in the business. Two companies depicted a negative correlation between acid test ratio and return on assets respectively. From the results, 50% of the companies

analyzed indicated a significant negative correlation between current ratio and acid test ratio. Hence there was no definite correlation between current ratio and profitability in the analysis.

Vieira (2010) analyzed the relationship between liquidity and profitability in 48 companies comprising the major airline carriers in the world between 2005 and 2008. Using the financial data published by the companies, the relationship was studied with the help of statistical procedures. It was observed for all the studied years a significant and positive correlation between the liquidity and the profitability variables in the short-run. The study also found that on the short term the higher the liquidity level of the company, the higher its profitability. It was further established that there is positive relationship between liquidity indicators and profitability indicators on the medium to long term. The study was however conducted for only a 3 year period and the airlines operate within Europe, America and Asia. African carriers listed were not incorporated in the study. Obida and Owolabi (2012) carried out a study on liquidity management and corporate profitability on manufacturing companies listed on the Nigerian stock exchange, the result of the study was obtained using descriptive analysis and the finding shows that liquidity management measured in terms of the company's Credit Policies, Cash Flow Management and Cash Conversion Cycle has significant impact on corporate profitability and it is concluded that managers can increase profitability by putting in place good credit policy, short cash conversion cycle and an effective cash flow management procedures.

In their study Tianwei& Paul (2006) investigated on the effect of liquidity on financial performance in agricultural firms, a descriptive study was conducted and 50 firms were studied. The lenders of these firms strived to improve their credit risk management. Internal management was interested in understanding the financial impacts of alternative strategic decisions. And policy makers often assessed the magnitude and distributional effects of alternative policies on

the future financial performance of farm business. Data was analyzed using a Z-score model, this model was applied to farm accounting data for the detection of farm operating and financial difficulties. The results of this analysis showed that credit risk management significantly led to financial performance of agricultural firms.

2.4.2Local Studies

Maina (2011) researched on the relationship between the liquidity and profitability of oil companies in Kenya covering the period 2007- 2010. Secondary data was used in the analysis that was obtained from the firm's financial statements. A regression model was developed to determine the relationship between the dependent variable (Profitability of the firms) and independent variables (liquidity position). The study found that liquidity management was not a significant contributor alone of the firm's profitability and there exist other variable that will influence ROA. However, it is important for a firm to understand the effect of each of the liquidity components on the firm's profitability and also undertake deliberate measures to optimize its liquidity level.

Kimondo (2014) investigated the relationship between liquidity and profitability of nonfinancial companies listed in the NSE. The study adopted a descriptive research design that enabled the researcher to meaningfully describe a distribution of scores or measurements using various statistics. The study covered 39 listed nonfinancial companies in NSE Kenya. The analysis was based on data extracted from audited annual financial statements of listed nonfinancial companies for a period of five years from year 2009 to 2013. Correlation and regression analysis were employed to establish the relationship between liquidity and profitability. The ROA was used as proxy for companies' profitability and the companies' liquidity was measured using the current ratio, quick ratio and the absolute liquid ratio. Findings established a significant weak

positive relationship between liquidity and profitability among the listed nonfinancial companies in Kenya.

Sanghani (2014) studied the effect of liquidity on financial performance of non-financial listed companies at the Nairobi Securities Exchange (NSE). Secondary data was collected from NSE 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 NSE. The study established that current ratio positively affects the financial performance and also revealed that an increase in operating cash flow ratio positively affects the financial performance of non-financial companies listed at the NSE. The study recommended that there is need for non-financial companies listed at the NSE 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.

Akhwale (2014) investigated the relationship between liquidity and profitability for companies listed at the NSE. This research was conducted through a diagnostic research design. The secondary data was obtained from the annual financial reports of the sampled listed firms in Kenya over a period of 5 years (2009-2013).The study established that cash conversion period and the current ratio as liquidity measures negatively affected the profitability of the firms listed in the NSE over the 5 year period while the quick ratio as a liquidity measure did not significantly affect the profitability of the firms listed in the NSE over the 5 year period. The study concluded that there exists a significant relationship between liquidity and profitability of listed firms in Kenya. The study recommended that the management of the firms listed in the NSE should institute efficient cash management techniques that would help reduce the cash conversion period. Further, the study recommended that the management of the firms listed in

the NSE should strive to achieve and maintain an optimal liquidity position that holds adequate cash/liquid resources for operational needs while the surplus liquid resources are invested in existing viable projects.

Mwangi (2014) analyzed the liquidity and financial performance of deposit taking microfinance institutions in Kenya for the period 2009 to 2013. Data was extracted from the published institution's annual audit reports, Association of Micro Finance Institutions Reports (AMFI) and CBK's banks supervision annual reports for the five years under examination. This study used inferential statistics to explain the main features of a collection of data in quantitative terms while correlation and linear regression analysis are used for analyzing the data. Financial performance was measured using return on assets while liquidity of DTMFIs was measured by cash and cash equivalents divided by total average assets. The results revealed that there is a positive relationship between liquidity and financial performance as the coefficient of determination was found to be 0.910 explaining that the liquidity explains 91% of the variance in the financial performance. The correlation revealed a significant association of .941 at 5% level of significant. The study concluded that efforts to stimulate the MFIs' liquidity would see the micro financial sector realize increased financial performance which would result to increased efficiency in the sector's operations. Recommendations made include; strategies to facilitate increased liquidity of MFIs to be adopted, emphasize on asset growth as a stimulator of financial performance and competitiveness as well as improvements in operational efficiency through application of modern technology and innovative operational strategies.

2.5 Summary of Literature Review

From the empirical studies reviewed it is evident that liquidity plays a significant role in financial performance of financial institutions. Empirical review reveals contradicting results, mainly due to the studies being conducted under different economic conditions and sectors. The international studies conducted in different countries are subject to different market conditions and stability; developed markets and emerging markets. It is thus inappropriate to apply the conclusions in Kenyan market condition which is a developing market. Also, empirical studies shows mixed results with some showing negative relationship and others showing positive or no relationship. Because of the inconsistencies in the previous studies, the researcher has found the need to study the impact of liquidity on financial performance of financial institutions listed at the NSE. It is with this hindsight that data will extend over five years from 2010 to 2014 and this will allow the researcher to investigate dynamic aspects with regard to the changing information impacts of liquidity.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1Introduction

In this chapter the research design adopted for the study is discussed. It outlines the target and sample population that used to achieve the research objectives. Further, it shows the data collection techniques, instruments and procedures followed during the study. The method used in data analysis and analytical models also provided.

3.2Research Design

According to Rubin et al (2010), a research design is the determination and statement of the general research approach or strategy adopted for a particular project. The study adopted a descriptive research design. A descriptive research describes the characteristics of objects, people, groups, organizations, or environments, and tries to "paint a picture" of a given situation, (Zikmund et al, 2010).Descriptive design provides the general overview giving some valuable pointers as to what variables are worth testing quantitatively. This is appropriate since it offers the researcher dual opportunities of observing and analyzing the historical data without bias (Waweru, 2011).

3.3Target population

The population of the study included all financial institutions listed on the NSE. From the 64 companies listed at the Nairobi Securities Exchange, 11 companies in Banking, 6 in Insurance and 5 in Investment segments will be chosen for the sample. Other segments include Agriculture, Commercial and Services, Telecommunication and Technology, Automobile and Accessories, Manufacturing and Allied, Construction and Allied, Energy and Petroleum, Growth and Enterprise. The study focused on financial institutions because they are highly regulated as far as their liquidity and financial performance is concerned due to their types of activities. Also

because the same study has been done on non-financial companies listed in the NSE. The target period will be from year 2010 to 2014. A five year period is long enough to reveal short-term, medium-term and long-term changes and permit valid conclusions thereof.

3.4Data Collection

The study used secondary data, this is because listed companies at the Nairobi Securities Exchange are required to publish their Audited Financial Statements and Other Disclosures in a newspaper of nationwide circulation as well display them on their websites. Of major scrutiny was the balance sheet which enabled the researcher to identify liquidity components and the income statements which provided the financial performance measures for the period. Any other relevant notes to the financial statements for the period were considered.

3.5Data Analysis

Data analysis is a process of analyzing all the information and evaluating the relevant information that can be helpful in better decision making, Silvia and Skilling (2006). The data was analyzed using correlation analysis and multiple regression analysis. The Eviews version 8software was used in data analysis because of its ability to simplify repetitive tasks and handling complex data manipulations and analyses.

3.5.1Analytical Model

The study adopted a multiple regression model to determine the effects of each of the variables with respect to financial performance. Regression is concerned with describing and evaluating the relationship between a given variable and one or more other variables. More specifically, regression is an attempt to explain movements in a variable by reference to movements in one or more other variables.

The study used the following conceptual model:

ROA=f (Liquidity, Capital Structure)

The model was adopted from Mwangi (2014) who studied the effects of liquidity on financial performance of deposit taking microfinance institutions in Kenya but removed Asset Quality as not all financial institutions offer credit facilities products and services. Also macroeconomic factors, i.e. GDP, as it affects the whole industry and not just financial institutions.

The study used the analytical model below to achieve the objective of this study:

$Y=\alpha+\beta_1X_1+\beta_2X_2+\varepsilon$

Where:

α= Constant Term

β_1, β_2, β_3; are regression coefficients or parameters;

X_1 andX_2; are independent variables;

$X_2$is the control variables.

Y= is the dependent variable, and will be measured by the return on Assets (ROA) ratio

Return on Asset is the ratio of the Profit before Tax to the average total assets of a business during a financial year. It is calculated as: ROA= PBT/ Total Assets.

X_1= Liquidity, Cash Position Indicator, measures ability to meet immediate cash needs. Calculated as Cash and deposits due from banks/Total assets.

X_2=Capital Structure, Debt ratio. Calculated as Long-term Debt / (Long-Term Debt + Shareholder's Equity)

ε = Error

3.5.2 Tests of Significance

The F- test was used to determine the significance of the regression while the coefficient of determination, R^2, will be used to determine how much variation in dependent variable is explained by independent variables. This was done at 5% significance level and correlation analysis was carried out to find the direction of the relationship between ROA and the independent variables.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the results and findings of the study based on the research objective. The results are presented in the form of summary tables. Regression and correlations analysis are used to answer the research objective.

4.2 Results

The regression analysis was conducted using measures of ROA and control variables. Test of significance was carried out for all variables studied using t-test at 95% level of significance. From the observation any p-value that is less 0.1 was deemed to have significant relationship with the dependent variable, else the relationship was considered insignificant. The adjusted R-square was used to measure the degree of variability of the dependent variable due to the changes in the independent variables. The results are indicated in sections 4.3 and 4.4 while source data is presented in a tabular format in appendices 2 to 5. The researcher used annual data for ROA, Liquidity, Capital Structure and GDP for 19 financial institutions listed in the NSE. 3 investment companies did not have adequate information required, this represented 86.36% response rate.

4.3 Descriptive Analysis

The summary of statistics of variables included in the regression model is presented in table 1 below.

Table I Summary Statistics

	ROA	LIQUIDITY	CAPITAL_STRUCTURE
Mean	2.24977	0.11702	0.59756
Median	2.17000	0.09689	0.81181
Maximum	7.10000	1.54549	0.92746
Minimum	-0.05464	0.00336	0.00000
Std. Dev.	2.04454	0.16734	0.31717
Skewness	0.54234	6.72411	-0.71769
Kurtosis	2.40490	57.34683	1.90736
Jarque-Bera	6.05882	12407.13000	12.88114
Probability	0.04834	0.00000	0.00160
Sum	213.72830	11.11730	56.76848
Sum Sq. Dev.	392.93160	2.63214	9.45617
Observations	95	95	95

Of the financial institutions studied, the mean ROA was 2.25% suggesting that they have a relatively average return on assets. With a maximum of 7.10%, a minimum of -0.05% and standard deviation of 2.04%, the implication is that financial institutions ROA varies significantly for financial institutions listed in the NSE. The descriptive statistics for liquidity measured by cash position indicator indicates a mean of 0.12 a standard deviation of 0.17 and a maximum of 1.55. This implies that liquidity for financial institutions vary significantly. The capital structure revealed a mean of 0.598, standard deviation of 0.31717 with a maximum value of 0.92746% and a minimum of 0.0000%.This suggests that the capital structure of financial institution varies significantly as well. The Jarque-Bera statistic is also significant for all the data series except for GDP and therefore the time series data can be concluded to have a non-normal distribution. Jarque-Bera statistic tests whether the coefficient of skewness and the coefficient of kurtosis are jointly zero and that Jarque-Bera would not be significant for a normal distribution.

4.4 Quantitative Analysis and Relationship between Variables

4.4.1 Pearson and Spearman's Correlations

Table 2 below shows the Pearson's correlation coefficient generated from the data. Pearson's correlation analysis is used to investigate the relationship between variables in the study.

Table II Pearson's Correlation Coefficient

	Pearson's Correlation Coefficient		
	ROA	**Liquidity**	**Capital Structure**
ROA	1.00000	0.060646	0.747373
Liquidity	0.060646	1.00000	0.149603
Capital Structure	0.747373	0.03135	1.00000

From the table, all the factors have a positive correlation with the dependent variable. This indicates that, the liquidity of financial performance has a positive association with their financial performance. A correlation value of 1 indicates a presence of a perfect association between the variables. The magnitude of the association (+ or -) indicates the nature of association (positive or negative association).Based on these intervals, the table illustrates that, liquidity of the financial firms and ROA has a correlation coefficient of 0.06065. This is an indication of a weak positive association between liquidity and financial performance. Also, capital structure and the financial performance of financial institutions has a positive correlation. This is according to the obtained coefficient of 0.75 indicating that the two variables are strongly associated. Capital structure and liquidity have a correlation of 0.149603.

4.4.1 Regression Analysis

From table 3 below the established multiple linear regression equation becomes:

ROA = -0.5844 – 0.6394*Liquidity + 4.8682*Capital Structure

Table III Result of General Least Square

Dependent Variable: ROA
Method: Least Squares
Date: 08/10/15 Time: 21:49
Sample: 1 95
Included observations: 95

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.58443	0.306663	-1.90577	0.0598
Liquidity	-0.63943	0.853368	-0.7493	0.4556
CS	4.868156	0.450229	10.81262	0.054

R-squared	0.561245	**Mean dependent var**	2.249772
Adjusted R-squared	0.551706	**S.D. dependent var**	2.044535
S.E. of regression	1.368913	**Akaike info criterion**	3.49698
Sum squared resid	172.4008	**Schwarz criterion**	3.577629
Log likelihood	-163.107	**Hannan-Quinn criter.**	3.529568
F-statistic	58.84203	**Durbin-Watson stat**	2.121386
Prob(F-statistic)	0		

The coefficients of the intercept and independent variables all have p-values less than 0.1 hence significant except liquidity. The results show that the dependent variable is negatively related to the independent variables. The C in table 3 above is constant representing where the regression line intercepts the y-axis. It represents the ROA when all other variables are at zero. It has a p-value of 0.0598 hence significant.

The results show that there is a insignificant negative relationship between a firms cash position indicator with ROA. This might be explained with the view that with inadequate cash and bank balance position, then the firm will borrow at possible high interest rate thus high cost and therefore result in low ROA. Also, it can be explained by the fact that excess cash and bank

balances may cost the firms since they are not able to get returns from viable investments as the funds lie idle in the banks. Uremadu and Efobi (2012) analyzed the importance of capital structure to corporate financial stability, growth and adequate returns and liquidity cannot be undermined. He concluded in his research with the help of multiple regression models that increasing proportion of both short term debt and long term debt on the overall liability of the firm reduces corporate profitability. He also revealed that profitability and performance of firm depend on proper management and composition of their capital structure. In this study, capital structure and ROA have a significant positive relationship.

4.4.2 Robustness Check

This refers to how well the study model explains the changes in the dependent variable. This is measured by adjusted R-square.

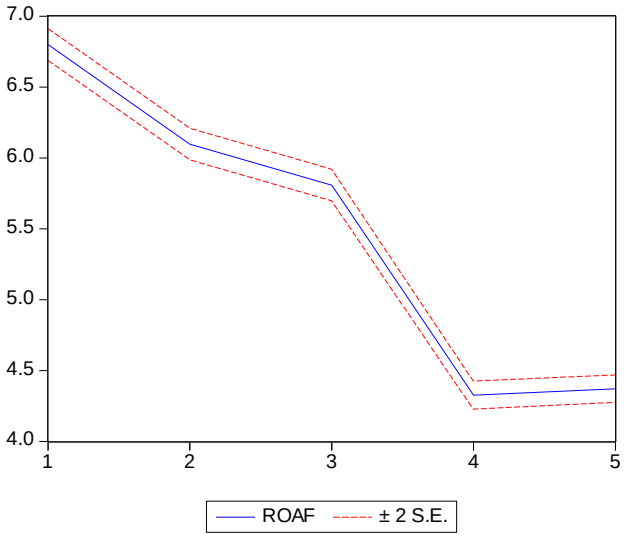
Table IV Summary of multiple regression

R	R-square	Adjusted R-square	Std error of estimate	F-statistics
0.749167	0.561245	0.551706	1.368913	58.84203

The adjusted R-square also called the coefficient of multiple determinations is the percentage of the variance in the dependent variable explained uniquely or jointly by the independent variables and is 56.12%. This means that 56.12% changes in financial performance as measured by ROA will be explained by the changes in independent variables while remaining 43.88% will be explained by other factors not in the model. From graph 1 below, ROAF and ROA both standing for financial performance, the model could be concluded as robust and adequate since it produced an accurate forecast with a bias proportion of 0.00000 and a small variance proportion

of 0.000082. The standard deviation of ±2 was within the recommended standard deviation of an accurate forecast and thus adequate model.

Graph I Determining the forecasting accuracy of the model



Forecast: ROAF
Actual: ROA
Forecast sample: 1 95
Adjusted sample: 1 5
Included observations: 5

Root Mean Squared Error	0.017728
Mean Absolute Error	0.013219
Mean Abs. Percent Error	0.289935
Theil Inequality Coefficient	0.001592
Bias Proportion	0.000000
Variance Proportion	0.000082
Covariance Proportion	0.999918

Table V Analysis of Variance

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
ROA	95	213.7283	2.249772	4.180123
Liquidity	95	11.1173	0.117024	0.028002
Capital Structure	95	56.76848	0.597563	0.100598

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	237.7953	2	118.8976	82.78392	0.00	3.027783
Within Groups	405.0199	282	1.436241			
Total	642.8152	284				

Analysis of Variance (ANOVA) consists of calculations that provide information about levels of variability within a regression model and form a basis for tests of significance. From the findings the significance value is 0.00 which is less than 0.05 thus the model is statistically significant in predicting how liquidity and capital structure affect the financial performance of financial companies listed in the NSE. The F critical at 5% level of significance was 2.46568. Since F calculated (value = 82.78392) is greater than the F critical (3.027783) this shows that the overall model was significant.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of key findings of the study as well as conclusions, limitations of the study and recommendations for future research. Data on ROA, liquidity and capital structure for 19 financial companies listed in the NSE were collected for the period 2010 to 2014. The research involved the use of regression analysis of financial performance as measured by ROA as the dependent variable while liquidity and capital structure were the independent variables.

5.2 Summary

From the data analysis in chapter four, there exist a negative relationship between financial performance and liquidity management for financial institutions listed in the NSE as represented by the negative values of R from the regression analysis. The study revealed that there was a strong positive relationship between the study variables as shown by 0.5612. This means that 56.12% changes in financial performance as measured by ROA will be explained by the changes in independent variables while remaining 44.88% is explained by other factors. The regression equation that estimates the relationship between financial performance and liquidity is as below.

ROA = -0.5844 – 0.6394*Liquidity + 4.8682*Capital Structure

5.3 Conclusion

The data analysis results in chapter four indicate that liquidity is one of the determinants of financial performance of financial companies listed in the NSE. The relationship between ROA and liquidity is negative implying that a decrease in liquidity will lead to a decrease in financial performance of financial companies listed in the NSE. Considering the findings of this study, the following conclusions can be drawn:

For the success of operations and survival, financial companies listed in the NSE should not compromise efficient and effective liquidity management. They are expected to maintain optimal liquidity level in order to satisfy their financial obligations to maximize financial performance for the shareholders. Also from the study, we can conclude that both illiquidity and excess liquidity are financial diseases that can easily erode the performance of a financial institution as they affect a firm's attempt to attain high financial performance level. The pursuit of high financial performance without consideration to the liquidity level can cause great illiquidity. Therefore, any financial institution that has the aim of maximizing its financial performance level must adopt effective liquidity management.

It is imperative for the financial institution's management to be aware of its liquidity position in different segments. This will help them in enhancing their investment portfolio and providing a competitive edge in the market. It is the utmost priority of a financial institution's management to pay the required attention to the liquidity problems. These problems should be promptly addressed, and immediate remedial measures should be taken to avoid the consequences of illiquidity.

5.4 Recommendation

From the findings, the study established that cash position indicator as a liquidity measure did not significantly affect the financial performance of financial companies listed in the NSE. The study recommended that the management of the financial firms listed in the NSE should strive to achieve and maintain an optimal liquidity position that holds adequate cash/liquid resources for operational needs while the surplus liquid resources are invested in existing viable investment opportunities in the operating environment to enhance the growth and financial performance. In

addition, management of financial performance should identify and address other factors that may be affecting their financial performance other than liquidity.

5.5 Limitations of the Study

The objective of the study was to establish the effect of liquidity on financial performance for financial companies listed in the NSE. The study solely depended on the published financial data. It was hence subject to all limitations that are inherent in the condensed published financial statements. Out of the 61 listed companies at the NSE, only financial companies in the banking, insurance and investment sectors were included in the study. The 19 selected companies in the sample were those that were active firms over the research period and had complete required data for the study. Nevertheless, the study is affected by any inherent sampling limitations like over representation or under representation of particular category of firms in the sample. Again, the study is based on the data and information relating to the period 2010- 2014, that is, five years period. This represents a limitation in case one wanted to establish the relationship in a different period. The study focused on the companies listed at the Nairobi Securities Exchange. The study is therefore limited to the profile of companies that are listed at the NSE. Companies listed in other stock/securities exchanges may have different profiles in as far as their financial performance and liquidity is concerned.

The study undertook to establish the effect of liquidity on financial performance for financial companies listed in the NSE using ROA employed as measure of financial performance, and cash position indicator as a measure of liquidity. The inherent limitations on the selected measures for liquidity and financial performance may have an impact on the conclusions drawn from the study. Although the study found out that the cash position indicator as a measure of liquidity did not significantly affect financial performance, the study also considered capital

structure as another factors affecting liquidity .The study did not undertake to establish which other factors apart from the above affected financial performance. Other factors that could have played a part in financial performance of the financial companies listed, over the research period present limitations on the findings for the study.

5.6 Suggestions for Further Studies

Since this study explored the effect of liquidity on the financial performance of financial institutions listed in the NSE, the study recommends that; similar studies should be done in other countries for comparison purposes and to allow for generalization of findings on the relationship between liquidity and financial performance for financial companies listed at the stock/security exchanges. This study excluded listed companies in the non-financial sectors. The study recommends further research for these sectors to confirm if there is indeed a relationship between liquidity and profitability in these firms. A study on the relationship between liquidity and financial performance for companies which are not listed at the NSE is also recommended. This includes the companies in the financial sectors for example, the SACCO's and also non-financial companies for example, manufacturing companies. This may help come with recommendations for companies which are not listed at the NSE to better their financial performance and liquidity management.

The study focused on the effect of cash position indicator as the liquidity measure on ROA as the financial performance measure for listed financial companies in the NSE, the study recommends that; similar studies should be done with increased variables for both financial performance and liquidity. For financial performance, the studies can add return on investment and return on equity while for liquidity, the studies can add cash ratio, quick ratio and net working capital

ratio. This would help to show clearly the relationship between financial performance and liquidity of the financial companies listed in the NSE.

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APPENDICES

Appendix I: Financial Institutions Listed in the NSE

Banks

Barclays Bank Ltd

CFC Stanbic Holdings Ltd

I&M Holdings Ltd

Diamond Trust Bank Kenya Ltd

Housing Finance Co Ltd

Kenya Commercial Bank Ltd

National Bank of Kenya Ltd

NIC Bank Ltd

Standard Chartered Bank Ltd

Equity Bank Ltd

The Co-operative Bank of Kenya Ltd

Insurance Companies

Jubilee Holdings Ltd

Pan Africa Insurance Holdings Ltd

Kenya Re-Insurance Corporation Ltd

Liberty Kenya Holdings Ltd

British-American Investments Company (Kenya) Ltd

CIC Insurance Group Ltd

Investment Companies

Olympia Capital Holdings Ltd

Centum Investment Co Ltd

Trans-Century Ltd

Home Afrika Ltd

Kurwitu Ventures

Appendix II: ROA

	Net Income/Total Assets	2010	2011	2012	2013	2014
1	Barclays Bank Ltd	6.8000	6.1000	5.8000	4.3000	4.4000
2	CFC Stanbic Holdings Ltd	1.7000	1.9000	2.9000	2.8000	3.1000
3	I&M Holdings Ltd	3.2000	3.8000	3.7000	4.0000	4.1000
4	Diamond Trust Bank Kenya Ltd	3.0000	3.0000	3.3000	3.4000	2.9000
5	Housing Finance Co Ltd	1.8800	3.0000	2.1700	2.3600	2.0700
6	Kenya Commercial Bank Ltd	3.5000	3.4000	3.5000	3.8000	4.5000
7	National Bank of Kenya Ltd	4.4000	3.3000	1.5000	1.8000	1.3000
8	NIC Bank Ltd	3.1000	3.3000	3.3000	3.3000	3.1000
9	Standard Chartered Bank Ltd	3.9000	3.3000	4.0000	3.8000	4.2000
10	Equity Bank Ltd	6.6000	6.6000	7.1000	7.0000	6.6000
11	The Co-operative Bank of Kenya Ltd	3.0000	2.8000	4.0000	4.2000	4.1000
12	Jubilee Holdings Ltd	0.6679	0.5626	0.5673	0.5150	0.5302
13	Pan Africa Insurance Holdings Ltd	0.1572	0.2117	0.1340	0.1584	0.0351
14	Kenya Re-Insurance Corporation Ltd	0.8940	0.1003	0.1178	0.1086	0.0868
15	Liberty Kenya Holdings Ltd	0.0109	0.0398	0.0324	0.0365	0.0333
16	Britam (Kenya) Ltd	0.0579	-0.0546	0.0983	0.1046	0.1265
17	CIC Insurance Group Ltd	0.0129	0.0815	0.6327	1.3057	1.6576
18	Trans-Century Ltd	0.0417	0.0275	0.0339	0.0263	0.1170
19	Home Afrika Ltd	0.0152	-0.0007	0.4360	0.0263	0.0024

Appendix III: Liquidity, Cash Position Indicator

	Cash and Bank Balances/Total Assets	2010	2011	2012	2013	2014
1	Barclays Bank Ltd	0.0953	0.1007	0.1069	0.1307	0.1333
2	CFC Stanbic Holdings Ltd	0.2644	0.2679	0.2705	0.2567	0.1295
3	I&M Holdings Ltd	0.0684	0.1224	0.0626	0.0708	0.0593
4	Diamond Trust Bank Kenya Ltd	0.1319	0.1787	0.1030	0.1030	0.1071
5	Housing Finance Co Ltd	0.2818	0.1598	0.1926	0.1834	0.1918
6	Kenya Commercial Bank Ltd	0.0796	0.1319	0.0787	0.0683	0.0646
7	National Bank of Kenya Ltd	0.1037	0.1298	0.0983	0.1893	0.1530
8	NIC Bank Ltd	0.1223	0.1257	0.1209	0.0926	0.0954
9	Standard Chartered Bank Ltd	0.0969	0.1730	0.1155	0.0952	0.1054
10	Equity Bank Ltd	0.0867	0.1074	0.1548	0.0916	0.1048
11	The Co-operative Bank of Kenya Ltd	0.0892	0.0817	0.1112	0.0841	0.0808
12	Jubilee Holdings Ltd	0.0203	0.0269	0.0168	0.0094	0.0151
13	Pan Africa Insurance Holdings Ltd	0.0127	0.0231	0.0184	0.0093	0.0401
14	Kenya Re-Insurance Corporation Ltd	0.1444	0.0089	0.0101	0.0072	0.0070
15	Liberty Kenya Holdings Ltd	0.1188	0.1130	0.2001	0.1918	0.2079
16	Britam (Kenya) Ltd	0.0085	0.0119	0.0162	0.0243	0.4521
17	CIC Insurance Group Ltd	0.0034	0.0147	0.0183	0.0412	1.5455
18	Trans-Century Ltd	0.0106	0.1157	0.0126	0.0131	0.0321
19	Home Afrika Ltd	0.1560	0.2075	0.0943	0.0500	0.0831

Appendix IV: Capital Structure

	LD/LD+ Shareholder funds	2010	2011	2012	2013	2014
1	Barclays Bank Ltd	0.8185	0.8270	0.8464	0.8458	0.8333
2	CFC Stanbic Holdings Ltd	0.9068	0.9275	0.8658	0.8700	0.8458
3	I&M Holdings Ltd	0.7918	0.8204	0.8217	0.8147	0.8418
4	Diamond Trust Bank Kenya Ltd	0.8628	0.8665	0.8430	0.8378	0.8180
5	Housing Finance Co Ltd	0.8565	0.8520	0.8762	0.8799	0.8973
6	Kenya Commercial Bank Ltd	0.8167	0.8424	0.8289	0.8086	0.8118
7	National Bank of Kenya Ltd	0.8353	0.8485	0.8492	0.8789	0.9023
8	NIC Bank Ltd	0.8566	0.8662	0.8503	0.8445	0.8358
9	Standard Chartered Bank Ltd	0.8588	0.8649	0.8346	0.8221	0.7957
10	Equity Bank Ltd	0.7893	0.8026	0.8015	0.7883	0.8539
11	The Co-operative Bank of Kenya Ltd	0.8716	0.8789	0.8562	0.8447	0.8507
12	Jubilee Holdings Ltd	0.4701	0.4879	0.4455	0.4966	0.3035
13	Pan Africa Insurance Holdings Ltd	0.0082	0.0071	0.0105	0.0132	0.0232
14	Kenya Re-Insurance Corporation Ltd	0.1690	0.1655	0.1293	0.1097	0.0950
15	Liberty Kenya Holdings Ltd	0.0000	0.5239	0.5324	0.5381	0.5449
16	Britam (Kenya) Ltd	0.0000	0.2037	0.1659	0.3536	0.3648
17	CIC Insurance Group Ltd	0.1066	0.1142	0.0536	0.0597	0.3648
18	Trans-Century Ltd	0.3875	0.4487	0.4450	0.4420	0.4757
19	Home Afrika Ltd	0.3092	0.1091	0.1147	0.2866	0.4261