

**RELATIONSHIP BETWEEN BOARD STRUCTURE AND LIQUIDITY
OF LISTED COMPANIES IN THE NAIROBI SECURITIES
EXCHANGE**

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DECLARATION

I, the undersigned, declare that this project is my original work and has not been presented to any institution or university other than the University of Nairobi for examination.

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This Research Proposal has been submitted for examination with my approval as University Supervisor.

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DEDICATION

This is a dedication to my loving wife Roselyne Atieno, and sons Cromwel and David for their support in doing this Project

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I wish to thank my supervisor, Dr. Cyrus Iraya for taking his guidance in this project. I also want to thank the entire University of Nairobi management for the conducive learning environment they accorded me during the study period.

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ABSTRACT

The board of directors plays a very important role in determining the strategic direction of any company which eventually impacts on the financial performance of any company. The objective of this study was to determine the relationship between liquidity of listed companies and board structure. The population of the study comprised all listed at the NSE. Census survey was used in the study. Secondary data was collected from annual reports of these companies while regression analysis was used to determine the relationship between liquidity and board structure. The study found that the proportion of independent directors and board members in audit committee have a negative but insignificant effect on the liquidity of listed companies while the proportion of women in the board has a positive but insignificant relationship with liquidity of listed companies. The study recommends that shareholders of companies that are keen on improving liquidity of their companies do not emphasize on board structure as a means of strengthening liquidity position of the companies.

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ABBREVIATIONS

AOA:	Article of Association
BOD:	Board of Directors
CEO:	Chief Executive Officer
MOA:	Memorandum of Association
NSE:	Nairobi Securities Exchange
ROI:	Return on Investment

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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The central point of internal corporate government mechanism is the board of directors. (Subramanian & Swaminath, 2008). The board of director's structure plays a very important role as it fulfills legal requirements also it provides strategic guidance and leadership, objective judgment, independent management to the company and exercises control over the company. Top management are responsible for developing strategies that results in an organizations competitive advantage. Shareholders do escape agency problems by leaving them to board of directors since directors are themselves agents whose interests are not necessarily aligned with the shareholders (Hermalin & Weishbach, 2003). In increased competition, technological advances together with increased globalization, businesses are looking for ways to remain competitive as well as achieve comparative advantages over their competitors for this reason, the selection of good board structure and its composition is paramount since it affects group dynamics and communication gap. The boards activity is very important since it is positively related to the financial performance of the firm (Mululu, 2005).

Daily management of a firms short term assets and liabilities plays an important role in the success of the firm. Firms with long term prospects and healthy balance sheet lines do not remain solvent without good liquidity management (Jose et al, 1996). Maintaining the liquidity of a firm amid changing overall price levels is therefore an important objective of the firm. High profitability at the cost of liquidity can bring problems to the firm and its stability, it may not survive for a longer period while on the other hand if it does not care about liquidity, it may face the problem of insolvency. For these reasons, profitability should be given proper consideration as it may affect the liquidity of the firm. Niresh (2012) opined

that liquidity is of major importance to both the internal and external analysts' because of its close relationship with day to day operations of a business. A weak liquidity position poses a threat to the solvency as well as profitability of a firm and makes it unsafe and unsound. The key argument is that board structure has effect on financial performance to the extent that the board will be able to come up with informed policies which can give the company a competitive edge in the industry and that the board will be able to put in place an effective monitoring and control mechanism to safeguard shareholders' wealth. Management efficiency is considered a moderating factor because it is the managers who implement board's decisions, leading to either superior or poor financial performance.

1.1.1 Board Structure

Board structure refers to the number of directors and the type, as determined by the usual insider-outsider classification (Chattajee, 2011). Insiders are the current members of top management team and are the employees of the company or its subsidiary. Outside directors have no such association but have some influential link with the company. They can further be classified into affiliated and non-affiliated outside directors. Affiliated outside directors are not members of the current management or employees of the company but have some influential link with the firm e.g as consultant. Non-affiliated outside directors are usually referred to as independent director they are recruited primarily because of their expertise, name, recognition and skills (pearce & Zahr, 1992).

Board duality is a corporate leadership structure that merges the position of BOD chair and CEO (Charan,1998). The measure variable for BOD independence will be a dummy which will take zero value if CEO and other BOD members are insiders and one if CEO and other BOD members are outsiders. The ratio of the number of women to total board size is used as

a measure of BOD gender diversity. The education qualification such as PhD act as a measure of competence and capabilities that help in executing the governance function,(Carpenter &Westphal, 2001). It is the role of the board to serves the long term interest of shareowners and others . An active, informed, independents and involved board is essential for ensuring integrity, transparent, and long-term strength of the company. This will enhance high liquidity of the company and hence ability to meet its obligation.

1.1.2 Concept of Liquidity

Liquidity is a fundamental concept in finance (Chordia et al., 2004). There are two general broad concepts of liquidity. The first is monetary liquidity, which is characterized by the availability of cash or near cash in relation to the general demand of goods and financial assets it is the ability to convert an asset into cash quickly in order to meet obligation. The trends of monetary liquidity are generally associated with the general state of the economy, economic cycles and consumer confidence. The other concept of liquidity is related to the way the transfer of cash and goods or financial securities is performed in the market in relation to trading price, return, volatility, market depth and the interdependencies between these factors (Ivanchuk, 2004). The focus of this study is on the first concept of liquidity. The liquidity is measured using quick/acid test ratio i.e ratio of cash &marketable securities to total current assets.

Bhunja (2010) refers to liquidity as the ability of a firm to meet its short term obligations. Liquidity for company means the ability to meet its financial obligations as they come due. Thus one of the main challenges to a firm is ensuring its own liquidity under all reasonable conditions. According to (Greuning, and Bratanovic, 2004) banking liquidity represents the capacity of a bank to finance itself efficiently. The liquidity risk, for a firm is the expression

of the probability of losing the capacity of financing its transactions, and the probability that the firm cannot honour its obligations to its clients like financing creditors, maturity of other debt and cover additional funding requirements for the loan portfolio and investment. Liquidity creation” refers to the fact that banks provide illiquid loans to borrowers while giving depositors the ability to withdraw funds at par value at a moment’s notice (Diamond and Dybvig, 1983). Banks also provide borrowers liquidity off the balance sheet through loan commitments and similar claims to liquid funds (Holmstrom and Tirole, 1998).

1.1.3 Relationship Between Board Structure and Liquidity

The stewardship theory requires agent to look after the principle company, in this case the agent is the BOD and principle is the stockholders. The stockholders will be concerned to know what happens to their firm’s liquidity position through stewardship accounting prepared by BOD. The stewardship performance can be evaluated through assessment of firm’s profitability, returns on investment to stockholders and liquidity position of the firm. Pandey (2009) a weak liquidity position poses a threat to the solvency of the company and make it unsafe, excessive liquidity is also bad it may also be due to mismanagement of current assets. This requires management to take timely action to improve and correct imbalances in the liquidity position of the firm.

Research work indicate that board structure and its composition plays a substantial role in corporate performance and managements one school of thought suggest a positive association between BOD structure and firms performance in which liquidity forms part firms, Pearce & Zahra (2009), Dalton et al (2009) argue that as board size increases the strategies decision making capabilities of the board increase, this is due to the knowledge and intellect that is brought to the board by members coming from varied backgrounds which leads to good &

sound management of firms liquidity. Smaller BOD structure are assumed to have inadequate confidence and unclear understanding in making strategic changes, (Fernando 2006). Therefore cannot have sound approach to liquidity management. Poor liquidity management would lead to insolvency of the firm this will lead to the reconstruction of the BOD composition as a measure to redeem poor image of the firm and to solve the liquidity problem. Cadbury committee report (1992) says “the board should include non-executive directors of sufficient caliber and number for the views to carry significant weight in the board decision.”

BOD independence has a significant influence on firm’s liquidity, more scholars have investigated further the relations between firm performance and independence of the BOD and the results are mixed. Nicholson and Kiel (2007) argue that given their unparalleled knowledge of the corporation, inside (executive) directors are placed to interrogate management proposals than can their independent counterparts and will manage the liquidity position of the firm better. Brennan (2006) argues that independent directors are part times and therefore, do not possess requisite inside information about the business and hence may not be competent enough to perform tasks assigned to them.

1.1.4 Nairobi Securities Exchange

The NSE was constituted as a voluntarily associate of stockbroker in 1954 registered under the societies act by then the business of dealing shares was confined to the resident European community. The first privatization was done in 1988 which saw a successful sale of 20% government stake in Kenya commercial bank. NSE is located at nation centre in august 2000 NSE implemented a new trading cycle (T+S). The central depository systematic was passed in parliament which became in operation in 2002. It was demutualized in 2008 which paved

way for formation of a new listed company NSE Ltd. On 27th June 2014, the capital market authority (CM) proved the listing of NSE stock through an IPO and subsequently self-list its shares on the main investment market segment. The NSE Ltd is managed by body composed of nine directors of which one is executive member the rest of the board members non-executive. NSE has eleven segments (11) with 67 listed companies' source NSE data 2014.

The BOD is the heart of corporate governance where the outcome of a firm is often determined. (Donalson 1994 and Davis 1994). The conflict objective of corporate governance resides on the ability of the board to monitor the management (Connelly and limpahayom 2004). The effectiveness of the BOD can only be efficient if bounded with appropriate size, proportion of outside directors, gender diversity average age, average board tenure and occupational expertise. Fama and Jensen (1983) established that an effective board depends on both the diverse collection of skills and competence. At NSE BOD structure prescribed under section ii (3) and 12 of capital markets authority act (CMA Act, 2002) that empowers the CMA to make rules and regulations to govern capital markets in Kenya. The CMA guideline on corporate governance practices (2002) has proposed a balanced board which constitutes an effective board. It therefore requires that the BOD of every listed company should reflect a balance between the independent, non-executives and executive directors.

In NSE the corporate boards are dominated by the male gender, independent and non-executive directors. However, the problem gender diversity will be solved by the newly promulgated constitution of Kenya 2010 which provided that at least a third of all appointment to public corporations must be of either gender. (Wachuhi and Mboya 2009). At NSE firms' liquidity has taken a Centre stage argument based on audited reports of listed firms at NSE. Research carried out on corporate governance show a significant positive

relationship between the firms liquidity and that of companies with independent director, sizeable number of directors and qualified directors likely to be more liquid.

The role of boards as a mechanism for corporate governance of listed companies takes on a special relevance in a framework of limited completion intense regulation. Thus the board becomes a key mechanism to monitor manager's behavior and to advise them on strategy identification and implementation. Companies' directors' specific knowledge of the complexity of dynamism of the business enables them to monitor control and the business efficiently. The board structure is the heart of corporate governance where the outcome of a firm is often determined. However the effectiveness of the BOD as shareholders monitoring mechanism can only be efficient if bounded with appropriate size, proportion outside directors, gender diversity average age, average tenure and occupational expertise (Kibiwot, 2011).

1.2 Research Problem

The key argument is that BOD structure has effect on financial performance and liquidity of the company. The BOD independency, board size, qualification and diversity has a significant influence on financial performance & firm liquidity which is measured using the information obtained from the audited financial statements of the companies. The firm's liquidity is evaluated using financial information as prepared by different firms. Rahman and Haniffa (2006) argued that financial performance of firm can be used to determine its operating performance i.e it translates the firm's performance in quantifiable metrics. Ujunwa (2012) investigated the impact of corporate board characteristics on the financial performance of CEO and gender diversity were negatively linked with firm performance, whereas board

nationality, board ethnicity and number of board members qualification were found to impact on the firm performance.

It is important to study the relationship between board structure and firms liquidity. Instead of being used as strategic in structure, it was important to establish the effect of BOD structure on profitability, growth and performance which will have an impact on liquidity of many companies. By analyzing the relationship between BOD structure and liquidity of companies listed in Nairobi securities exchange, the research will determine if BOD structure affects the liquidity which affects the ability of these firms to meet obligation, profitability, growth, stockholders confidence and wealth maximization and stock prices as contained in the financial report published by BOD and approved by auditors through audit report. Additionally, it was important to analyze the effect of BOD structure on liquidity to determine whether the players in Kenya industries will succeed or fail as a result of audit report issued by audit firms.

Accounting scandals that have been experienced in the last few years such as Eron, Arthur Anderson and World com have affected the regulators trust of financial statement prepared BOD. The local demise of Arthur Anderson in 2002 one of the big five of U.S. public accounting firms, sent shock wave all over the world and is often viewed as having generalized considerable stress on the principles of accountant. This scandal and its subsequent results were main reasons for drawing attention towards the quality of financial statements prepared by the BOD and firms liquidity as result of audit reports prepared by the agent of stockholders. Fargher & Jiang (2008) found that auditors were more likely to issue going concerns opinion for financially stressed companies immediately after the crisis.

In Kenya, poor and corrupt board governance negatively affects the return on investment in many firms which contributes to larger systematic problems in the firms listed in NSE. Examples are listed companies such as Uchumi supermarket, Mumias Sugar Company, which faced financial crisis despite presumed well constituted BOD & high audit quality. This resulted in stockholders' loss of wealth, loss of investor's confidence in NSE, as a result the NSE share index plunged and a low level of investors' confidence in the NSE and foreign investor's flight. Recently Kenya Airways brought a big shock in the Kenya financial market by reporting billions of losses despite having a well constituted BOD with high qualification. Nyakira (2014) studied the effect of inflation on banks' liquidity which only focused on banking institutions in Kenya hence ignored other sectors such as manufacturing, commercial and investment sectors, leaving gaps in essential sectors. This research therefore bridges this gap and assists all the stakeholders in all sectors on determinants of liquidity in general.

These past experiences which have led to conflicts make the BOD structure and firm liquidity inconclusive. By analyzing the relationship between BOD structure and firm liquidity of companies listed in Nairobi Securities Exchange, the research determines if BOD structure affects the liquidity which affects the ability of these firms to maximize profitability, pay its obligations, growth, stockholders' confidence and wealth maximization and stock prices as contained in the financial report published by BOD and approved by auditors through an audit report. Additionally, it's important to analyze the effect of BOD structure on firms' liquidity to determine whether the players in Kenya industries will succeed or fail as a result of an audit report issued by auditors by focusing on the influence of BOD structure for the public listed firms in NSE in relation to their liquidity. Letting (2012) studied the relationship between BOD diversity and financial performance, this is a very broad aspect and therefore cannot form the basis for making credit decisions by suppliers, creditors, banks and other stakeholders. This

study therefore assists all these stakeholders in making informed decision of lending and giving out credits as it is more refined measure of performance in this case liquidity.

1.4 Research Objective

To establish the relationship between BOD structure and liquidity of listed companies in the NSE.

1.5 Value of Study

Theoretically BOD structures are often assumed to be the main engine behind the firms performance and liquidity all over the world. This research entails making use of or exploring the knowledge behind the composition of BOD and its effect on liquidity of the firms listed in the NSE. To determine board structure which has an effect on financial performance of the company and to establish liquidity of listed companies in NSE which adds significant value to investors in the capital market because they use liquidity position of the firm to make investment decision. It also assists creditors such banks & other lenders to make prudent decision when giving out credits. This research is useful to stockholders, foreign and institutional investors, capital market authority, Nairobi securities exchange, financial analyst's parliament and other stakeholders in regards to formulation of guidelines, policies and legislation towards controlling the board structure and composition of listed companies. This ensures that those who are elected in the BOD are of diversity independence and of high integrity. The policies and legislation should ensure adequate responsibility and accountability by BOD and the audit firms which will enable the stakeholders to make proper decisions based on the audit report.

Recently and in the past firms with large asset base and presumed well constituted BOD structure have faced liquidity problem leading for petition for insolvency and bankruptcy by both local and international creditors. This results to loss of investment value by stockholders, loss of taxes by government and loss of funds by creditors, employees and suppliers. Most studies done have focused on BOD composition and firms performance which is abroad area without focusing on solvency ability of the firm. This study assists all stakeholders of the firms on the value of a firms liquidity. It also assist to ascertain whether the insolvency problems faced by the firms locally is as a result of BOD structure.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter looks in to the various existing literature both foreign and local studies on board structure and liquidity. It reviews studies by other scholar especially studies touching on board structure and liquidity. The chapter addresses the theoretical frame work .Theories relevant to the study will be build empirical literature and chapter summary. Secondary materials such as textbooks, journals and articles which carry precious research work on the study topic are analyzed.

2.2 Theoretical Review

Board structure and liquidity are crucial components of organization policy for organization going-on concern, maximize stockholders wealth, assets protection and to remain relevant in the business world. Various compelling theories have been put forward in order to explain motives behind board structure and liquidity some of the leading theories include:-

2.2.1 Agency Theory

Jensen and Meckling (1976) proposes agency theory which suggest that:- in many modern organization, there is separation between ownership (principal) and management (Agent) and separation may result. In agency problem including excessive consumption and under-investment Fama and Jensen (1983) suggest that board reduces agent conflicts by separating management from control aspect of eth decision making. In the language of agency theory there is moral hazard problem called efforts of the CEO are not fully revealed. This can only be achieved by enhancing high and adequate audit produce and constant audit report. By appointing right agents capable of making management decisions, the firms will not find

themselves insolvency problems as there will be a balance between enhancing firms growth and maintenance of firms liquidity, Pandy (2005).

Agency theory is equally important to corporate governance, since it forms the backbone of any successful corporate governance policies and regulations, get the agency theory framework right and the corporate governance principles will more than likely be right especially in the 21st century where there have been some of the major corporate collapses and lots of talk with regards to strengthening the corporate governance reporting by companies to make sure that it is effective and efficient in protecting the interest of shareholders and all other stakeholders.

2.2.2 Stewardship Theory

This theory stress the beneficially consequence and stock holders returns to facilitate authority structure with unitary command by having role of CEO and chairperson held by the same person to perform the same function (Thomsen and Conyon 2008). The safeguard of returns to stockholders may be along the track not of placing management under-greeter control by owners but by empowering manager to take independence executive action. The stewardship entrusted to CEO cum chairman must be monitored for effective control, financial management and stock holders interests. This is measured through audit report produced by auditors which will inform the stakeholders on the performance of the Agent (BOD).

Critics to the stewardship theory have argued that boards can become redundant when there is a dominant active shareholder, especially when the major shareholder is a family or government. One could speculate that some boards are established from cultural habit, blind faith in their efficacy, or to make government or family firms looks more businesslike".

However Prefer (1972) showed that the value of external directors is not so much how they influence managers but how they influence constituencies of the firm. He found that the more regulated an industry then the more outsiders were present on the board to reassure the regulators, bankers and other interest groups. Good BOD will steward the firm to the right direction which will ensure maintenance of adequate liquidity to meet current and future obligation as and when they fall due.

2.2.3 Stakeholders Theory

This theory requires that the managers of a firm should take account of the interest of all stakeholders in a firm. (Jensen 2001). It advocates for enlightened value maximization which is identical to enlightened stakeholders theory. This theory take accounts a wider group of constituents rather than focusing on shareholders. This includes employees, creditors customers suppliers, government and local community.

This can only be achieved if BOD is frequently monitored by constant evaluation of performance and liquidity to satisfy the entire stakeholder by providing constant audit report. The report will assure the all stakeholders of their interest in the business. The stakeholders are the people who assist or hinder the achievement of organization's objectives. Stakeholder theory is equally important to corporate governance, since it assist the organization in its supply chain management and in the process help in resource management allocation and management decision making.

2.2.4. Theory of Corporate Liquidity

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 investments to the firms. The model predicts that financially constrained firms will save a positive fraction of incremental cash flows, while unconstrained firms will not. Empirical evidence confirms that firms classified as financially constrained save a positive fraction of their cash flows. While firms classified as unconstrained do 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 opportunity and cash holdings.

The theory further predicts that firms with better investment opportunities have greater financial distress costs because the positive net present value (NPV) of these investments disappears (almost entirely) in case of bankruptcy. In this case, firms with better investment opportunities will keep higher levels of cash to avoid financial distress. To the extent that liquid assets other than cash can be liquidated in the event of a cash shortage, they can be seen as substitutes for cash holding. Consequently, firms with more liquid asset substitutes are expected to hold less cash.

2.2.5. Keynes Motives of Money Theory

The economics and finance literature analyze possible reasons for firms to hold liquid assets. Keynes (1936) identified three motives on why people demand and prefer liquidity. The transaction motive, here firms hold cash in order to satisfy the cash inflow and cash outflow needs that they have. Cash is held to carry out transactions and demand for liquidity is for transactional motive. The demand for cash is affected by the size of the income, time gaps between the receipts of the income, and the spending patterns of the cash available. The precautionary motive of holding cash serves as an emergency fund for a firm. If expected cash inflows are not received as expected cash held on a precautionary basis could be used to

satisfy short-term obligations that the cash inflow may have been benchmarked for. Speculative reason for holding cash is creating the ability for a firm to take advantage of special opportunities that if acted upon quickly will favor the firm.

2.3 Determinants of Liquidity

There are no set rules or formula to determine the liquidity requirements of a firm. A large number of factors each having a different importance influence on liquidity need of a firm. These factors also change for a firm over time therefore an analysis of relevant factors should be made to determine total investment in working capital. The following is the description of factors which influence the liquidity requirements of a firm.

2.3.1 Board Structure

Policy makers and academics have spent a lot of time arguing that particular BOD size might have certain advantage over the other types of structures. For example it is asserted that boards containing more outsiders are better because they provide more oversight of potentially errant CEOs. Another hypothesis holds that smaller boards are more effective than larger boards since they do not suffer from free-rider problems. Bloomfield (2013) argues that smaller boards are assumed to have inadequate confidence and unclear understanding in making strategic changes.

The measurement for board independence will be a ratio of non executive directors to total sum of members with voting privilege. BOD are traditionally composed of only male members. The presence of women on board leads to gender diversity. The ratio of the number of women to total board size is used as measure of board gender. The educational

qualification such as PhD act as a mixture of competence and capabilities that help in executing the governance function, (Carpenter and Westphal,2001).

2.3.2. Current Assets

Current assets are comprised of all assets that the firms expects to convert into cash with the year, including cash, makeable securities, account receivable and inventories (Misra,2005). Managing the firms current asset, however has come to mean more than simply managing the firms investment in current assets but also managing the firms liquidity. As pandey (2009) states a weak liquidity position poses a threat to the solvency to the company and make it unsafe and unsound, negative current assets means a negative liquidity and may prove to be harmful for the company reputation. Other things remaining the same, the greater the firm's investment in current assets, the greater is its liquidity (Misra, 2005).

As a means of increasing its liquidity, the firm may choose to invest additional funds in cash and or makeable securities. The firm thus finds that it can reduce its risk of illiquidity only by increasing its current assets by converting its non current asset into current assets. The cost of illiquidity is the cost of holding insufficient current assets because the firm will not be in a position to honor its obligation if it comes to little current assets, thus proves the positive relationship between the current assets firms liquidity.

2.3.3. Size of A firm

The size of affirm has a great impact on liquidity of a firm. Large firms tend to invest much more in non current assets, trading and financial firms have a very small in investment in non current assets but require large sum of money to be invested in working capital hence high liquidity. Big firms see themselves too big to fail therefore motivate to hold non liquid assets

which exposes them loses associated with having to sale non liquid assets to satisfy the liquidity demand. This creates a positive relationship between firm size and non liquidity but small firms focus on traditional intermediation activities and transformation activities (Raul et al .2008.Berger and Bouwman2009) they do have small amount of liquidity hence negative relationship between firms and illiquidity.

The size of a firm will be determined by the value of assets it owns at a particular period. The measurement will be determined by the ratio of current assets to total assets. As the firm grow in size it enters into debt agreements using its non current assets as collateral against the debts, this increases debt level of the firm and the BOD size also increases. As the firm realizes expansionary stage of growth ,the liquidity position of most firms reduces.

2.4 Empirical Studies

Many studies have been conducted on board structure. Board structure refers to the size of the board mix between executive and non-executive. These studies have focused on independency, diversity and other desirable attributes. Appropriate board composition has been a subject of scholarly research for more than five decades.

For instance Empirical study carried out by Chaterjee (2011) on BOD composition and performance on firm listed on Bombay stock exchange (BSE) 500 indexes. The data was collected from the centre for monitoring Indian Economy (CIME) for a period 2006 to 2007. A sample of 420 firms were listed from a population of foreign subsidiaries and government owned firms ordinary least square method was used to investigate whether BOD structure has significant association with the firm performance or not. It was found that BOD independent does not have a statistically significant affect on firms performance this demonstrates how the composition of the BOD is a significant subject on the firms performance and operation.

Hermalin and Neisbach (2003) Researched on Relationship between the BOD composition and firm performance using multi linear regression analysis they argued that there is no relationship between BOD composition and firms performance as opposed to general belief. They suggested that it is good to have inside director's presence in the BOD as they help CEO to maximize value by providing both advice and knowledge about the day to day operation of the company. This is a clear demonstration of the importance of BOD structure and the firm's performance as indicated in the financial report audited by the Audit firm.

Holmstrom and Tirole (1998) provide a theory of liquidity in a model in which intermediaries have borrowing frictions. They do not assume incomplete markets. In their model, a government has an advantage over private markets as it can enforce repayments of borrowed funds while the private lenders cannot. They show that availability of government provided liquidity leads to pareto improvement when there is aggregate uncertainty. The role of the government is to correct an inefficiency arising because of an externality associated with private information and possibility of hidden trades. However, in contrast with Holmstrom and Tirole (1998) and Allen and gale (2004), a liquidity requirement improves upon a market allocation even when there is no aggregate uncertainty.

Ujunwa (2012) set out to investigate the impact of corporate board structure characteristics on the firm performance of Nigerian quoted firms. Board characteristics studied comprise board size, board skills, board nationality, and board gender board ethnicity CEO duality. Using multi variety regression analysis he found that board size, CEO duality and gender diversity were negatively linked with firm performance therefore it is important to carry out more research on BOD composition to prove the findings.

Zureigai (2011) researched on effect of ownership structure on Audit quality among Jordanian listed firms. The sample study consists on one hundred ninety eight (198) out of population of the hundred sixty two (262) listed on the Amma stock exchange (ASE). Logistic regression was used to investigate relationship. The result show as significant positive relationship between audit quality ownership of both foreign institutional ownership.

Locally studies which look at the BOD attributes, strategic decision making on corporate performance was carried out by Kibiwot (2011) studied listed companies in the Nairobi Security Exchange under the main investment market segment in December 2010. Empirical analysis were undertaken using the ordinary least square (OLS) that included correlation analysis, multi-variate regression analysis. The finding of the study indicate that board size in Kenya among listed firms consist of an average nine (9) board members. It is concluded that there is statistically significant relationship between the number of executive directors sitting on the board and the number of the inter locking directors and return on equity this study demonstrate the importance on BOD on stakeholders return and investment.

Ongore, Kobonyo, Ogutu, Bosire (2011) researched on effects of board composition and financial performance on listed companies in the N.S.E using regression analysis. The study established that BOD has not significant influence on financial performance on the firms listed at N.S.E.

In his study, Letting' (2011) examined the relationship between board diversity and financial performance of firms listed in the Nairobi Stock Exchange. He analyzed data on boards' age, gender, educational qualifications, study specialization, and board specialization as well as the companies' financial performance. The results indicated a statistically not significant

effect of board diversity on financial performance except for their dependent effect of board study specialization on dividend yield.

Ochieng (2009) studied the relationship between working capital of firms listed in NSE and economic activities in Kenya. The objective was to examine how the change in economic activities affect changes in working capital by firms listed in NSE. The liquidity position of 50 small firms included in this study as measured by current and quick ratios increased slightly during economic expansion and decreased during economic slowdown. However the liquidity position reacted differently to different economic indications.

Waciira (1999) said that from liquidity point of view, inflation is likely to resulting an erosion of the real value of any financial claims outstanding as opposed to the nominal value of such claims which may remain unaffected. Therefore a firm may find it with receivables whose real value is diminished, thus inflation harms lenders and benefits borrowers. These studies done have not yield much expected results for ensuring investors confidence in the financial market, stockholder protection they focused on corporate governance within the firms rather than external factors which might have influence in financial reporting of different firms.

2.5 Summary of Literature

From the literature reviews illustrated above good board structure is vital and important in all organization regardless of their industry, size or level of growth. Good BOD structure has a positive financial performance on the companies in question as it saves the organization from various financial losses, over expenditure occasioned by frauds, corruption and similar irregularities which may result in negative audit report. The literature establishes the need for good and well-structured BOD which results in good performance, adequate growth and shareholders wealth maximization and protecting stakeholders' interest. The board is vested

with responsibility for managing the firm and its activities. This study therefore, seek to examine whether and to what extent board of directors structure has effect on firms liquidity position among listed companies in Kenya. Most of the studies above focused on BOD and firms performance and ignored liquidity position of the firms.

CHAPTER THREE:RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research design and methodology of the study. It entails the research instruments, data collection techniques and data analysis procedure and the analytical model to be utilized in the study.

3.2 Research Design

A descriptive research design is to be applied in this study. A descriptive research describes the characteristics of the objects, people, groups, organizations or environments and tries to "paint picture" of a given object Zikmund, Babin, Cam and Grifting (2010). The research will adopt a descriptive research design in order to determine the relationship between board structure and liquidity of firms listed in NSE by using a descriptive study, the research will be able to depict, whether board structures have an impact on the liquidity of firms in Kenya. The dependent variable is liquidity measured through board structure while independent variable is board structure measured through board independence, gender diversity and board size.

3.3 Population

The population of interest in this study is composed of listed companies in NSE as at 31/12/2014. The population under study consist all companies and liquidity of the firms, from different segments companies in the NSE from all, segment listed in the NSE.

3.4 Data Collection

The description study based on secondary data were obtained from available financial statements of listed companies NSE in Kenya. These statements can be accessed through respective company websites and the Nairobi securities exchange. Data from financial statements include; directors of the company, their position, status, qualification and work experience, financial statements and auditors reports. Data from NSE include stock prices or listed firms and their audit reports.

3.5 Data Analysis

Regressive analysis was utilized to determine the predictive power of board structure on firms liquidity. The descriptive statistics for the study variable is to measure the liquidity of the firms for the sampled companies. Multi linear regression analysis and a combination of the three (3) independent variables was used. The goal of the multiple linear regressions is to point out the relation between a dependent variable and a great deal of independent variables with the help of multiple linear regressions it is possible to determine to what extent a part of the total variation of the dependent variable is influenced by the variation of the independent variables.

3.5.1 Analytical Model

The research study examines relationship existing between different indicators resulted from the firm's board structure as express through liquidity. In order to carry out such analysis the research used the multiple linear regression method. The study equation is as follows.

$$Y = a + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \varepsilon$$

Y = liquidity, calculated as the cash & marketable securities divide by current liabilities.

X_1 = Proportion of independent directors in the board

X_2 = Proportion of women in the board

X_3 = Proportion of board members in Audit Committee

$\beta_1 \beta_2 \dots$ Beta coefficients - Represent the independent variable

a - Is constant

ε - Error term

3.5.2 Test of Significance

T-test is carried out in order to ascertain the significance of the parameters. The student t distribution tests the null hypothesis: $H_0 = \beta_i = 0$ against the alternative hypothesis. $H_1 = \beta_i \neq 0$. Thus, we derive the result whether the computed t value, t (n-k) degree of freedom at 5% level of significance is greater or less than the critical t value from the table. If the computed t is greater than the critical t, we reject the H_0 and accept the alternative hypothesis that beta estimate is significantly different from zero. This reveals the percentage/proportion variable in the dependent variable that is explained by the independent variable(s). Its maximum value is 1 or 100%.

F-test reveals the significance of the overall regression equation for further prediction. This test, at (k-1) (n-k) degree and N, the number of observations at 5% level of significance indicates

whether or not the expected variable(s) is likely to have occurred by chance or not. The decision rule is that if computed F is greater than critical F, accept the model as significant and reliable for prediction purpose or policy formulation. If computed F is less than critical F, then accept the equation as significant and unreliable.

Regression Coefficient shows the value and sign attached to each of the parameters. The signs are very important, because they allow us to see whether our results confirm to the theory or not. If a positive relationship is expected between a dependent variable, then the sign of the regression coefficient is expected to be positive, the same goes for a negative relationship.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter provides a summary of the data analysis, results of the study and the discussion of the results of the study. The chapter gives a description of the study parameters, the proportion of the study population that responded to the study and an in-depth analysis of findings as regards the topic of discussion.

4.2 Descriptive Statistics

This study sought to determine the relationship between board structure and liquidity of listed companies in Kenya in the year 2014. There are 64 companies listed at the NSE divided into nine (9) categories based on their areas of business. They include Agriculture, Automobiles Banking, Commercial, Construction, Energy, Investment, Insurance, and manufacturing. In this study, board structure was measured using the three aspects; number of independent board members, number of female board members and number of audit committee members

4.2.1 All listed Companies

The board structure of all the 64 listed companies at the NSE as extracted from the financial reports of these companies is shown in the table below.

Table 1: Board Structure of Listed Companies

Measure	Independent Directors	Female Directors in the Board	Audit Committee
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Average as a % of the Board	44%	27%	48%
Standard Deviation	19%	11%	12%

From the table, 44% of the board members of listed companies are independent directors (standard deviation =19%). On average, 27% of the board members of listed companies are female (standard deviation =11%) while an average of 48% of the board members sit on the audit and risk committees of listed companies.

4.2.2 Proportion of Independent Directors in the Board across Listing Categories

The study sought to determine the average number of independent directors as a percentage of the board members across the various listing categories. The findings are tabled below.

Table 2: Proportion of Independent Directors in the Board

Category	Mean	Std Dev.
Agriculture	40%	9%
Automobiles	38%	4%
Banking	51%	20%
Commercial	40%	16%
Construction	42%	15%
Energy	51%	16%
Insurance	48%	27%
Investment	49%	22%
Manufacturing	36%	23%

From the table, listed companies under the banking category has the highest average number of independent directors at 51% of the total number of board members (standard deviation=9%) followed by listed companies under the investment category with an average

of 49% and standard deviation of 22%. Listed companies under insurance have 48% of the board members as independent (standard deviation=27%) while the number of independent directors under agricultural, automobiles and manufacturing are all below 40% of the board members.

4.2.3 Proportion of Women in the Board Across Listing Categories

The study looked at the number of women in the board across the listing categories. The findings are tabled below.

Table 3: Proportion of Women in the Board

Category	Mean	Std Dev.
Agriculture	19%	15%
Automobiles	31%	18%
Banking	27%	12%
Commercial	28%	11%
Construction	28%	9%
Energy	31%	9%
Insurance	28%	7%
Investment	25%	11%
Manufacturing	28%	12%

From the table, the average proportion of women in the board is highest in automobile firms (mean=31% and standard deviation=18%) and energy companies (mean=31% and standard deviation=9%). The proportion of women in commercial, construction and insurance companies is 28% with a standard deviation of 11%, 9% and 7% respectively. Agricultural firms have the least number of women in the board at an average of 19% with a standard deviation of 15%.

4.2.4 Proportion of Audit Committee in the Board across Listing Categories

The study looked at the number of audit committee members in the board across the listing categories. The findings are listed as below.

Table 4: Proportion of Audit Committee in the Board

Category	Mean	Std Dev.
Agriculture	58%	13%
Automobiles	57%	6%
Banking	40%	8%
Commercial	43%	9%
Construction	56%	11%
Energy	51%	13%
Insurance	42%	8%
Investment	43%	11%
Manufacturing	53%	15%

From the table, agricultural firms have the highest number of audit and risk committee members as a percentage of the board (mean=58% , standard deviation=13%) followed by automobile companies (mean =57%, standard deviation=6%). Construction companies have an average of 56% of the board members sitting in the audit and risk committee (standard deviation=11%) and manufacturing at 53% and a standard deviation of 15%. Insurance (mean=42%, standard deviation=8%)and investment firms (mean=43%,stand deviation=11%) have the least number of audit and risk committee members as a percentage of the board.

4.2.5 Findings on Liquidity of Listed Companies

The study looked at the liquidity of companies listed at the NSE. Liquidity was measured by the ratio of marketable assets to current liabilities. The findings are shown in the table below.

Table 5: Liquidity of Listed Companies

Category	Mean	Std Dev.
All Listed Companies	5.1	27.50
Agriculture	1.68	2.25
Automobiles	0.42	0.35
Banking	5.72	5.37
Commercial	0.30	0.31
Construction	0.38	0.46
Energy	0.58	0.60
Insurance	38.8.	89.76

Investment	0.46	0.47
Manufacturing	0.68	1.38

From the table, all listed companies had a mean liquidity ratio of 5.1 and a standard deviation of 27.50. Under the various listing categories, insurance firms had a stronger liquidity ratio of 38.8 and a standard deviation of 89.76 followed by banking companies at 5.72 and a standard deviation of 5.37. Agricultural firms had a mean liquidity ratio of 1.68 and a standard deviation of 2.25. All other listing categories had a liquidity ratio of less than 1.

4.3 Results of Regression Analysis

The study sought to determine the relationship between Board structure and liquidity of listed companies in Kenya. In this study, board structure, the independent variable was measured by three variables namely proportion of independent members in the board, proportion of women in the board and proportion of board members serving in the audit committee. Dependent variable is the liquidity of the listed companies measured by the ratio of marketable securities to current assets. The results of regression analysis are discussed below.

4.4 Results of Regression Analysis for All listed Companies

Regression analysis for all the 64 companies in which the dependent variable was liquidity of listed companies and the independent variable being the board structure is shown in the table below.

Table 6: Results of Regression Analysis

Dependent Variable	Beta	Std Error	t	P-value
Constant	20.61	24.10	0.86	0.396
Proportion of Independent Directors	-18.00	19.28	-0.91	0.367
Proportion of women in the Board	19.29	33.50	0.58	0.567
Proportion of Board Members in Audit Committee	-27.02	31.13	-0.87	0.389

Table 7: ANOVA Table

Model	Sum of Squares	df	Mean Square	F	P-value
Regression	1574.32	3	524.77	0.67	0.57
Residual	46810.56	60	780.17		
Total	48384.877	63			

Table 8: Model Summary

Model	R	R-square	Adjusted R- square	Std Error of Estimate
1	0.18	0.033	-0.016	27.93

The table (s) shows that the proportion of independent directors and board members in audit committee have a negative effect on the liquidity of listed companies. The beta for the two variables are -18 and -27.02 respectively implying that an increase in the proportion of independent directors and board members in audit committee by 1% would reduce the liquidity of listed companies by 18% and 27.02% respectively. The study also found that proportion of women in the board has a positive relationship with liquidity of listed companies with a beta of 19.29 implying that if the proportion of women in the board is increased by 1% the liquidity of the company improves by 19.29%.

Despite the relationship between liquidity and the three independent variables, the table shows that board structure has an insignificant effect on the liquidity of listed companies at 95% level of confidence since the p-values associated with all the independent variables are greater than 5%. Indeed results of ANOVA table shows the model is insignificant at 95% level of confidence since the p-value on the Anova table is 0.572 which is greater than 0.05. The model for this relationship is shown below

$$Y = 20.61 - 18x_1 + 19.29x_2 - 27.02x_3 + \epsilon$$

4.3.2 Results of Regression Analysis for Various Listing Categories

Listed companies at the NSE are categorized into nine (9) categories based on their areas of business. They include Agriculture, Automobiles Banking, Commercial, Construction, Energy, Investment, Insurance, and manufacturing. This study looked at the relationship between liquidity and board structure of listed companies and the various listing categories. The results of regression analysis are shown in the table below.

Table 9(a): Regression Results

Category	Constant	Beta(s) of Variables			P-value(s) of Variables		
		X ₁	X ₂	X ₃	X ₁	X ₂	X ₃
Agriculture	-8.19	16.71	12.16	1.51	0.125	0.097	0.814
Banking	5.25	-6.34	-11.67	17.41	0.514	0.480	0.496
Commercial	-1.14	0.84	0.28	2.33	0.372	0.841	0.094
Energy	25.23	5.69	1.54	9.56	0.956	0.758	0.456
Insurance	151.25	-110.60	1050.62	-850.58	0.521	0.151	0.189
Investment	14.12	-0.87	-3.24	3.69	0.897	0.489	0.789
Manufacturing	2.19	-1.68	-5.94	1.43	0.336	0.174	0.653

Table 9(b): Regression Results Continued

Category	Standard Error			t-statistic		
	X ₁	X ₂	X ₃	X ₁	X ₂	X ₃
Agriculture	7.90	5.09	5.88	2.11	2.39	0.25
Banking	9.22	15.63	24.22	-0.69	-0.75	0.72
Commercial	0.86	1.30	1.20	0.97	0.21	1.99
Energy	4.10	2.56	3.12	0.68	0.95	0.41
Insurance	143.18	463.22	433.92	-0.77	2.27	-1.96
Investment	5.42	3.25	8.96	0.58	1.56	0.43
Manufacturing	1.61	3.86	3.03	-1.05	-1.54	0.47

The table shows that there is a positive relationship between liquidity of firms in the and proportion of independent directors in the board (beta=16.71), number of women in the board (beta=12.16) and proportion of audit committee in the board (beta=1.51). This means that if the number of independent directors in the board, number of women in the board and proportion of the board members in the audit committee are independently increased by 1%, the liquidity of these firms would increase by 16.71%, 12.16% and 1.51% respectively. The

relationship for all the variables is however insignificant at 95% level of confidence because the p-values are more than 0.05. The model for this relationship is shown below.

$$Y = -8.19 + 16.71x_1 + 12.16x_2 + 1.51x_3 + \varepsilon$$

Under the Banking category, the study found a negative relationship between liquidity of firms and the number of independent directors in the board (beta=-6.34), and the number of women in the board (beta=-11.67) but found a positive relationship between liquidity and proportion of board members in audit committee (beta=17.41). This means that increasing the number of independent directors in the board and number of women in the board by 1% would reduce liquidity by 6.34% and 11.67% respectively. A 1% increase in the proportion of board members in audit committee would increase liquidity of firms in the banking sector by 17.41%. The relationship for all the variables are however insignificant at 95% level of confidence since the p-values are more than 0.05. The model for this relationship is shown below.

$$Y = 5.25 - 6.34x_1 - 11.67x_2 + 17.41x_3 + \varepsilon$$

The study found a positive relationship between the three variables for listed banks doing commercial business. 1% increase in the number of independent directors in the board, number of women in the board and proportion of board members in audit committee would increase liquidity by 0.84%, 0.28% and 2.33% respectively. The relationship was however found to be insignificant since all the p-values are more than 0.05. The model for the relationship is shown below.

$$Y = -1.14 + 0.84x_1 + 0.28x_2 + 2.33x_3 + \varepsilon$$

The study found that firms in the energy sector exhibited a positive relationship between liquidity and the three aspects of board structure with a beta of 5.69, 1.54 and 9.5 for number of independent directors in the board, number of women in the board and the proportion of board members in audit committee. A 1% increase in these variables would thus increase liquidity by 5.69%, 1.54% and 9.5% respectively. The relationship was however found to be insignificant at 95% level of confidence since all the p-values are more than 0.05. The model for the relationship is shown below.

$$Y = 25.23 + 5.69x_1 + 1.54x_2 + 9.5x_3 + \varepsilon$$

Under Insurance category, the study found a negative relationship between liquidity of firms and the number of independent directors in the board (beta=-110.60), and proportion of board members in audit committee (beta=-850.58) but found a positive relationship between liquidity and the number of women in the board (beta=1050.62). This means that increasing the number of independent directors in the board and the proportion of board members in audit committee would reduce liquidity by 110.60% and 850.58% respectively. A 1% increase in number of women in the board by 1% would increase liquidity of firms in the banking sector by 1050.62%. . The relationship was however found to be insignificant at 95% level of confidence since all the p-values are more than 0.05. The model for the relationship is shown below.

$$Y = 151.25 - 110.60x_1 + 1050.62x_2 + 850.58x_3 + \varepsilon$$

Firms doing investment businesses had a negative relationship between liquidity of firms and the number of independent directors in the board (beta=-0.87), and the number of women in the board (beta=-3.24). but found a positive relationship between liquidity and proportion of board members in audit committee (beta=3.69) This means that increasing the number of

independent directors in the board and the number of women in the board would reduce liquidity by 0.87% and 3.24% respectively. A 1% increase in the proportion of board members in audit committee by 1% would increase liquidity of firms in the banking sector by 3.69%. . The relationship was however found to be insignificant at 95% level of confidence since all the p-values are more than 0.05. The model for the relationship is shown below.

$$Y = 14.12 - 0.87x_1 - 3.24x_2 + 3.69x_3 + \varepsilon$$

Under the manufacturing category, the study found a negative relationship between liquidity of firms and the number of independent directors in the board (beta=-1.68), and the number of women in the board (beta=-5.94) but found a positive relationship between liquidity and proportion of board members in audit committee (beta=1.43). This means that increasing the number of independent directors in the board and number of women in the board by 1% would reduce liquidity by 1.68% and 5.94% respectively. A 1% increase in the proportion of board members in audit committee would increase liquidity of firms in the banking sector by 1.43%. The relationship for the all the variables are however insignificant at 95% level of confidence since the p-values are more than 0.05. The model for this relationship is shown below.

$$Y = 2.19 - 1.68x_1 - 5.94x_2 + 1.43x_3 + \varepsilon$$

4.4 Discussion of Findings

The study sought to determine the relationship between Board structure and liquidity of listed companies in Kenya. In this study, board structure, the independent variable was measured by three variables namely proportion of independent members in the board, proportion of

women in the board and proportion of board members serving in the audit committee. Dependent variable is the liquidity of the listed companies measured by the ratio of marketable securities to current assets the proportion of independent directors and board members in audit committee have a negative effect on the liquidity of listed companies. The beta for the two variables are -18 and -27.02 respectively implying that an increase in the proportion of independent directors and board members in audit committee by 1% would reduce the liquidity of listed companies by 18% and 27.02% respectively. The study also found that proportion of women in the board has a positive relationship with liquidity of listed companies with a beta of 19.29 implying that if the proportion of women in the board is increased by 1% the liquidity of the company improves by 19.29%.

The results of this study are consistent with the findings of Chatterjee (2011) who did a study on BOD composition and performance on firm listed on Bombay stock exchange (BSE) 500 indexes and found that BOD independent does not have a statistically significant affect on firms performance this demonstrates how the composition of the BOD is a significant subject on the firms performance and operation. Other studies that found consistent results with this study was by Hermalin and Neisbach (2003) who Researched on Relationship between the BOD composition and firm performance using multi linear regression analysis and concluded that there is no relationship between BOD composition and firms performance.

CHAPTER FIVE CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary, conclusions of the study and recommendations, limitations of the study and suggestions for further research.

5.2 Summary of the Findings

The purpose of this study was to determine the relationship between liquidity and board structure of companies listed at the NSE. Research work indicate that board structure and its composition plays a substantial role in corporate performance and managements one school of thought suggest a positive association between BOD structure and firms performance in which liquidity forms part firms, Pearce & Zahra (2009), Dalton et al (2009) argue that as board size increases the strategies decision making capabilities of the board increase, this is due to the knowledge and intellect that is brought to the board by members coming from varied backgrounds which leads to good & sound management of firms liquidity. Smaller BOD structure is assumed to have inadequate confidence and unclear understanding in making strategic changes, (Fernando 2006).

A descriptive research design was applied in this study. A descriptive research describes the characteristics of the objects, people, groups, organizations or environments and tries to "paint picture" of a given object Zikmund, Babin, Cam and Grifting (2010). The population of the study comprised all listed at the NSE. Census survey was used in the study. Secondary data was collected from annual reports of these companies while regression analysis was used to determine the relationship between liquidity and board structure.

The study found that the proportion of independent directors and board members in audit committee have a negative but insignificant effect on the liquidity of listed companies. The beta for the two variables are -18 and -27.02 respectively implying that an increase in the proportion of independent directors and board members in audit committee by 1% would reduce the liquidity of listed companies by 18% and 27.02% respectively. The study also found that proportion of women in the board has a positive but insignificant relationship with liquidity of listed companies with a beta of 19.29 implying that if the proportion of women in the board is increased by 1% the liquidity of the company improves by 19.29%.

5.3 Conclusions and Recommendations

The study sought to determine the relationship between liquidity of listed companies and board structure. Board structure measured by three elements namely; number of independent directors, number of women in the board and the proportion of board members sitting in audit committee was the independent variable while liquidity measured as a ratio between marketable securities and current liabilities is the dependent variable. Regression analysis found no significant relationship between board structure and liquidity of companies listed at the NSE. This study concludes that board structure is not a significant corporate governance tool that affects liquidity of companies listed at NSE.

The study sought to determine the relationship between liquidity of listed companies and board structure. no significant relationship between board structure and liquidity of companies listed at the NSE. With this finding in mind, the researcher recommends that shareholders of companies that are keen on improving liquidity of their companies do not

emphasize on board structure restructuring as a means of strengthening liquidity of these firms.

5.3.3 Limitations of the Study

The researcher acknowledges that board structure is not just measured by three elements; board independence, number of women and audit committee composition. There are indeed other aspects of board structure that could have an impact on the liquidity of listed companies. Due to time and resource constraints the study did not focus on other elements of board structure. Had this been done, may be the results would be different.

This study focused on all the listed companies at the NSE. These companies are categorized into Agricultural, Banking, Commercial, Energy, manufacturing, among other categories. The researcher acknowledges that due to the differences in the business models of these companies, the contribution of board structure to their performance may vary from one category to another. Had this study been focused on companies in the same sector alone, perhaps the results would be different.

5.3.4 Suggestions for Further Research

The study sought to determine the relationship between liquidity of listed companies and board structure. no significant relationship between board structure and liquidity of companies listed at the NSE. The researcher however acknowledges that that board structure is not just measured by three elements; board independence, number of women and audit committee composition. There are indeed other aspects of board structure that could have an impact on the liquidity of listed companies. Consequently, it is the researcher's recommendation that further research be carried out to determine the relationship between

liquidity and board structure of listed companies but this time measure board structure using such elements as number of board members, board remuneration and number of times the board met in a year.

REFERENCES

- Allen, G. & Gale, D., (2004). Financial Intermediaries and Markets, *conometrica*, 72(4), 1023-1061.
- Almeida, H., Campello, M., & Weisbach, M. (2002). Corporate demand for Liquidity, Working Paper 2002-11, New York University.
- Arnold, G. (2008). *Corporate Financial Management*. (4th Ed) London: Prentice Hall.
- Berger, A.N., & Bouwman, C.(2009). Bank liquidity creation, *Review of Financial Studies*. 3779-3837.
- Bhunja, A (2010). A Trend analysis of Liquidity management efficiency in selected private sector Indian steel industry, *International Journal of Research in Commerce and Management*, 1(5-90), 9-21
- Brennan, N. (2006). Boards of Directors and Firms Performance: is there an expectations gap? *Corporate Governance: An International Review*,14,(6):577-593.
- Capital Markets Authority Act.(2002). Gazette Notice 3362. Guidelines on Corporate governance practices by public listed companies in Kenya.
- Carpenter, M.A & Westpal, J.D (2001). The Strategic context of external network ties: Examining the impact of director appointments on board involvement in strategic decision making, *Accademic of management Journal*,44(4),639-990.
- Cardbury, A (1992). *Report of the Committee on the Financial Aspects of Corporate Governance*. London: Gee Publishing.
- Centre for Corporate Governance (2005). *Guidelines on Corporate Governance in Cooperatives in Kenya*, Nairobi.
- C. Chattajee. (2011) *International Journal of Business and Social Science*

- Chordia, T., Roll, R., & Subrahmanyam, A. (2004). Order Imbalances, Liquidity, and Market Returns. *Journal of Financial Economics* 72:485-518.
- Dalton, V., & Daily, H. (2009). Corporate Performance and Board Structure in Belgian Companies. *Long Range Planning*, 34, (3): 383-398
- Diamond, D., & Dybvig, P. (1983). Bank Runs, Deposit Insurance, and Liquidity, *Journal of Political Economy* 91, 401-419.
- Donaldson, L. & Davis J.H (1994). Board and Company Performance: Research Challenges the Conventional Wisdom. *Corporate Governance: An International Reviews*.
- Fama, E.F. & Jensen, M.C. (1983). Separation of Ownership and Control. *Journal of Law and Economics*, 26(2), 301-325.
- Fernando, A.C: *Corporate Governance (2006), Principles, Policies & Practices*.
- Fragher, N.L. and Jiang, L. (2008), Changes in the Audit Environment and Auditors Propensity to Issue Going Concern Opinions., *Auditing Journals of practice & Theory*
- Gendron, Y., Suddaby, R. and Lam, H. (2006). An Examination of the Ethical Commitment of Professional Accountants to Auditors Independence ., *Journal of Business Ethics*.
- Goodpaster Kenneth E, Laura L Nah & Bertignies H. (2006). *Business Ethics*, McGraw-Hill Irwin.
- Greuning, H., & Bratanovic, S. (2004). *Analysis and risk management banking*, Bucharest, Irecson Publishing House.
- Hermalin, B.E and Weisbach, M.S (2003). Board of Directors as an Endogenously Determined Institute: A Survey of the Economic Literature, *Economic policy Review*, 9(1):7-26.
- Holmstrom, B., & J.Tirole, (1998). Private and Public Supply of Liquidity, *Journal of Political Economy*.

- Ivanchuk, N. (2004). Evaluating the Liquidity of Stocks Using Transaction Data. Published MA thesis. University of Konstanz.
- Jesen, M.C., & Meckling, W. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3(4), 305-360.
- Jill Solomon (2011). *Corporate Governance and Accountability*, 3rd Edition, John Wiley Publishers.
- Jose et al, (1996). Liquidity management, operating performance, and corporate value: Evidence from Japan and Taiwan *Journal of Multinational Finance Management*, Volume 12, Issue 2 Pages 159-169
- Kaplan & Norton (1992) *"The Balanced Scorecard - Measures That Drive performance"* Harvard Business Review: January - February 1992.
- Kathuriavbinish and Dash shridhar (1999), Board size and corporate financial performance; *An investigation, vikalpa*, 24(4):1047-1073.
- Kiel, G., & Nicholson, G (2007). Board Composition and Corporate Performance: How the Australian experience informs Contrasting Theories of Corporate Governance: An International Review
- Lennox C. (2005). Management ownership and audit firm size, *contemporary accounting research*, 22, 1.
- Letting, N Kibiwot (2011) Involvement of Board in Strategic decision making & the Influence of the Board Attribute on the Corporate Performance.
- Letting; N., (2012). Board Diversity and Performance of Companies Listed in Nairobi Stock Exchange. *International Journal of Humanities and Social Science*, 2(11), 178-180.
- Mululu, A.K (2005). The Relationship Between Board Activity And Firm Performance: A Study Of Firms Quoted On The Nairobi securities exchange (Unpublished MBA Project.) University of Nairobi, Kenya.

- Niresh, J. A. (2012) . Trade-Off between Liquidity and Profitability, A study of selected Manufacturing Firms in Sri Lanka. University of Jaffna.
- Nyakira., A Patrick (2014). The Relationship Between Liquidity and Inflation on Banks In Kenya. (Unpublished MBA Project) University OF Nairobi, Kenya.
- Ochieng, J.(2006). Changes in Working Capital of firms listed at the NSE in Response to changes in Economics activity, Unpublished MBA-Thesis, University of Nairobi.
- Ongore. V.O, A. & Kobonyo P.O (2011). Effects of Selected Corporate Governance Characteristics on Firms Performance; Empirical Evidence from Kenya.*International Journal of Economics and Financial Issues* 1.3. 2011, 99-122.
- Pearce John A and Zahra Shaker A (1992), Board composition from a strategic contingency perspective, *journal of management studies*, 29 (4):11-438.
- Pfeffer, J. (2007). Organizational demography. In L.L Cummings, & B. M. Staw (Eds),*Research in Organizational behavior*,5,299-357.
- Prasanna Krishna (2006), Independent directors and expectations Gap: An empirical Analysis, *the icfai journal of corporate governance*, 5, 2, 56-72.
- Private Sector Corporate Governance (2002). *Trust, Guidelines for Good Corporate Governance* in state owned corporations, Nairobi.
- Private Sector for Corporate Governance (2003). *Trust, Corporator Governance* for members (shareholders), Jomo Kenyatta Foundation, Nairobi.
- R., A. G Monks & N., Minow Corporate Governance (2011).
- RahejaCharu (2005). Determinants of board size and composition: A *theory of corporate boards*, *Journal of Finance and Quantitative Analysis*, 40, 283-306.
- Richard Smerdon, (2010). *A practical Guide to Corporate Governance*, 4th Edition, Thomson Reuters Publishers.

- Robert A. G. Monks, (2011). *Nell Minow, Corporate Governance*, 5th Edition, John Wiley Publishers.
- Roy C, Smith & Ingo Walter, (2006). *Governing the MordeRN Corporation: Capital Markets, Corporate Control and Economic Performance*. Oxford University Press, 2006.
- Sanjay Anand, (2007). *Essentials of Corporate Governance*, John Wiley Publishers.
- Stephen B., (2013): Theory and Practice; Corporate Governance an Integrated Approach.
- Subramanian S and Swaminathan S. (2008). Corporate governance in India: *A survey of the literature, icfai journal of corporate governance*, 7, 3, 31-45.
- Thomsen., S., & Conyon M., (2012): Corporate Governance Mechanism and Systems
- Ujunwa, A. (2012). Board Characteristics and the Financial Performance of Nigerian Quoted Firms. *Journal of management*, 12(50)
- Van Homrigh, (2005). *Ethics, Governance and Accountability: A professional Perspective*, John Wiley Publishers.
- Waciira, W. (1999). The Relationship between Liquidity and Macro Economics Factors-an Inter Industry Comparison. MBA Project, University of Nairobi.
- William O E (1988). Corporate Finance and Corporate Governance, *Journal of Finance*, 43, 567-591.
- Zahra. L. & Pearce, P. (2009). Corporate governance. In Peter Newman (ed.), *The New Palgrave Dictionary of Economics and the Law*, London: Macmillan, 497-502.
- Zabihollah Rezaee, (2008). *Corporate Governance and Ethics*. John Wiley Publishers, Millich.
- Zikmund, W. G., Babin, B. J., Carr C. J., & Griffin, M. (2010). *Business Research Methods*, South Western, Cengage Learning 8th Edition.

Zureigat Q., M. (2011). Effect of Ownership Structure on Audit Quality.(*IJBS*).

APPENDICES

APPENDIX I: COMPANIES LISTED ON THE NSE AS AT 31st DECEMBER 2014

Kapchorua Tea Co. Ltd

Kakuzi

Limuru Tea Co. Ltd

Rea Vipingo Plantations Ltd

Sasini Ltd

Williamson Tea Kenya Ltd

COMMERCIAL AND SERVICES

Express Ltd

Kenya Airways Ltd

Nation Media Group

Standard Group Ltd

TPS Eastern Africa (Serena) Ltd

Scan group Ltd

Uchumi Supermarket Ltd

Hutchings Biemer Ltd

TELECOMMUNICATION AND TECHNOLOGY

Access Kenya Group Ltd.

Safaricom Ltd

AUTOMOBILES AND ACCESSORIES

Car and General (K) Ltd

CMC Holdings Ltd

Sameer Africa Ltd

Marshalls (E.A.) Ltd

BANKING

Barclays Bank Ltd

CFC Stanbic Holdings Ltd

Diamond Trust Bank Kenya Ltd

Housing Finance Co Ltd

Kenya Commercial Bank Ltd

National Bank of Kenya Ltd

NIC Bank Ltd

I & M Bank

Standard Chartered Bank Ltd

Equity Bank Ltd

Co-operative Bank of Kenya Ltd.

INSURANCE

Jubilee Holdings Ltd

Pan Africa Insurance Holdings Ltd

Kenya Re-Insurance Corporation Ltd

INVESTMENT

City Trust Ltd

Olympia Capital Holdings Ltd

Centum Investment Co Ltd

INVESTMENT SERVICES

Nairobi Securities Exchange

MANUFACTURING AND ALLIED

B.O.C Kenya Ltd

British American Tobacco Kenya Ltd

Carbacid Investments Ltd

East African Breweries Ltd

Mumias Sugar Co. Ltd

Unga Group Ltd

Eveready East African Ltd

Kenya Orchards Ltd

Baumann Co Ltd

CONSTRUCTION AND ALLIED

Athi River Mining

Bamburi Cement Ltd

Crown Berger Ltd

E.A Cables Ltd

E.A Portland Cement Ltd

ENERGY AND PETROLEUM

Kenolkobil Ltd

Total Kenya Ltd

Kengen Ltd

Kenya Power & Lighting Co Ltd

APPENDIX II: BOARD STRUCTURE, ASSET BASE AND MARKETABLE ASSETS

Company	Total No. of Directors	No. of Women Directors	No. Independent Directors	No. in Audit Committee	cash and Cash Equivalents	Current Liabilities	Category
EAGADS	4	-	2	3	3	48	Agriculture
Kakuzi	8	3	4	4	1,181	177	Agriculture
Kapchorua Tea	6	2	2	3	210	318	Agriculture
Limuru Tea	4	1	1	3	32	41	Agriculture
Rea Vipingo	5	-	2	3	198	241	Agriculture
Sasini	8	2	3	4	56	36	Agriculture
Williamson Tea	7	1	3	3	17	14	Agriculture
Car and General	5	2	2	3	112	145	Automobiles
Marshalls	5	1	2	3	5	12	Automobiles
Sameer	6	2	2	3	3	45	Automobiles
Barclays	10	5	8	5	6,541	7,351	Banking
CFC	12	4	9	3	41	31	Banking
Corporate Bank	11	3	5	5	58,941	4,580	Banking
Diamond Trust Bank	11	2	5	5	64,710	3,510	Banking
Equity	12	3	5	5	14,543	4,384	Banking
Housing Finance	8	1	3	3	9,782	3,690	Banking
I &M Bank	9	1	4	4	5,000	1,395	Banking
KCB	14	4	7	4	47,179	9,841	Banking
NBK	13	5	2	5	35,879	4,786	Banking
NIC	12	2	10	4	10,539	2,224	Banking
Standard Chartered	11	4	5	5	15,432	5,384	Banking
Atlas Development and Support Services	8	2	3	4	11	41	commercial
Express Kenya	10	3	3	3	(49)	126	commercial
Hutchings Biemer	9	4	4	3	23	89	commercial
KQ	11	1	9	4	11,218	63,756	Commercial
Longhorn Publishers	9	2	3	4	20	85	commercial
NMG	11	3	4	5	87	120	Commercial
Scan Group	6	1	3	3	3	4	Commercial
Standard Group	9	3	2	5	18	87	commercial
TPS	13	3	6	4	1	5	commercial
Uchumi Supermarket	8	3	3	4	85	259	commercial
ARM Cement	9	3	2	4	48	256	Construction
Bamburi	10	3	5	7	7,644	6,768	Construction
Crown Paint	7	2	3	4	7	75	Construction
E A Cables	8	1	5	5	14	3,293	Construction
Portland Cement	9	3	3	4	74	145	Construction
Kengen	11	4	8	4	9,429	25,196	Energy
Kenol	6	1	3	4	1,051	16,298	energy
Kenya Power	10	3	6	5	245	189	Energy
Total	12	4	4	5	499	14,924	Energy
Umeme Ltd	5	2	2	3	41	36	Energy
British American Investments	8	2	3	3	184	250	Insurance
CIC	13	5	4	5	2,442	11	insurance
Jubilee	11	2	8	4	12,146	3,226	insurance
Kenya Re	11	3	10	4	224	1,095	insurance
Liberty Kenya Holdings	9	3	2	5	458	125	Insurance
Pan African	11	3	4	5	359	148	Insurance
Centum	9	1	4	4	175	9,324	Investment
Home Africa	12	3	11	3	309	1,213	Investment
Kurwitu Ventures	9	2	3	4	142	359	Investment
NSE	9	4	4	4	89	75	Investment
Olympia Capital	5	1	2	3	150	175	Investment
Transcentury	8	2	3	3	293	5,162	Investment
BAT	9	3	2	3	145	569	Manufacturing
Baumann & Co. Ltd	4	1	1	3	27	142	manufacturing
BOC	5	1	3	3	14	110	Manufacturing
Carbacid	5	-	-	4	749	156	Manufacturing
East African Breweries	7	2	3	3	175	345	manufacturing
Eveready	9	4	3	3	8	139	Manufacturing
Flame Tree Group	6	1	2	3	13	85	manufacturing
Kenya Orchards	5	2	1	3	9	24	manufacturing
Mumias	9	3	3	4	36	245	manufacturing
Unga	8	3	7	4	619	3,166	Manufacturing
Safaricom	12	5	3	5	789	1,450	Telecommunication