

**FINANCIAL FLEXIBILITY, BOARD CAPITAL AND FINANCIAL
PERFORMANCE OF FIRMS LISTED AT NAIROBI
SECURITIES EXCHANGE, KENYA.**

BY

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**A THESIS SUBMITTED TO THE SCHOOL OF BUSINESS AND
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DEGREE OF DOCTOR OF PHILOSOPHY IN
BUSINESS MANAGEMENT
(FINANCE OPTION)**

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2022

DECLARATION

Declaration by the Candidate

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DEDICATION

I dedicate this work to my family for their prayer moral support and encouragement throughout my studies.

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May almighty God bless you abundantly .

ABSTRACT

The variations in financial performances of firms listed at Nairobi Securities Exchange in Kenya are dependent on the decision made by the Board of Directors more so on financial flexibility. Previous studies have shown positive, negative, U shape or no linkage of financial flexibility, board capital and financial performance with other themes. Firms listed in Kenya have financed their operation with more of equity as compared to debt. The purpose of this study therefore was to establish the effect of; firm liquidity, firm leverage, dividend pay-out and capital expenditure on the financial performance of firm listed at NSE in Kenya and later it established whether board capital has an interactive relationship between financial flexibility and financial performance. The studies vocal theory was stewardship theory others were trade-off theory, pecking order theory, liquidity preference model and Resource Dependency theory. The philosophical foundation underpinning the study was positivism and an explanatory research design. The study comprised of all the 65 firms listed at NSE in Kenya. The sample was done by use of census, where inclusive and exclusive criteria was done and secondary data was collected using content analysis. Inclusion criterion was based on all firms listed at the NSE from 2008 to 2017. All the suspended and delisted firms were excluded. As a result, panel data from audited financial reports were collected from 40 firms listed. 400 observations were therefore obtained from firms listed. Descriptive statistics; Mean, median standard deviation, skewness and kurtosis was used, while inferential statistics; was multiple regression analysis and Pearson moment correlation. In addition, panel regression analysis was employed to establish the nature and significance of the relationship between independent variables and dependent variable with firm liquidity ($\beta = -0.17$; $\rho > 0.05$), firm leverage, ($\beta = -.25$, $\rho < .05$), dividend pay-out ($\beta = -.22$, $\rho < .05$) capital expenditure ($\beta = .12$, $\rho < .05$) to financial performance. Later the process was repeated with the moderating variable the results showed no significant moderating effect of board capital on the relationship between firm liquidity and financial performance ($R^2\Delta = 0.00$ $\beta = -0.02$; $\rho > 0.05$), a significant moderating effect of board capital on the relationship between firm leverage, ($R^2\Delta = 0.07$, $\beta = 0.02$; $\rho < 0.05$) dividend pay-out ($R^2\Delta = 0.05$ $\beta = -0.06$; $\rho < 0.05$) capital expenditure and financial performance ($R^2\Delta = 0.07$; $\beta = 0.13$; $\rho < 0.05$) on financial performance. The study found out that the board capital had an enhancing moderation effect on firm leverage and capital expenditure while it had buffering effect on dividend pay-out on financial performance. Theoretically, the aspect of financial flexibility by the firms listed in NSE validates the stewardship theory, which is on the premise that directors and managers are trustworthy and good stewards of the resources entrusted to them. Besides, though dividend pay-outs are construed to transmit information about the future profitability of firms, the study findings elicited a negative link between dividend pay-outs and financial performance. Similarly, when moderated with board capital, dividend pay-outs still negatively impact on the financial performance. Finally the researcher recommends a policy guidelines on cashflow while minimizing liquidity risk, effective debt management, proper capital expenditure that need to be design alongside dividend policy and asset finance that provide return sufficient enough to cover related cost of borrowing to avoid erosion of reserves in servicing debt. Besides further study is recommended focusing on firms not listed in NSE to ascertain whether the study results hold

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ABBREVIATIONS AND ACRONYMS

ADR:	American Deposit Receipt
ANOVA	Annalysis Of Variance
BOD:	Board Of Directors
C M A	Capital Market Aurtherity
CEOs:	Chief Executives Officers
DV	Dependent Variable
EAC:	East African Countries
EMH:	Efficient-Market Hypothesis
GMM:	Generalized Method Of Moments
MD&A:	Management Discussion And Analysis
NACOSTI:	National Commission Of Science And Technology And Innovation
NSE:	Nairobi Securities Exchange
OLS	Ordinanry Least Square
P/E:	Price Earning Ration
ROA:	Return On Assets
ROE:	Return On Equity
STATA:	Statistical Data
US:	United States
VIF	The Variance Inflation Factor

OPERATIONAL DEFINITION OF TERMS

Board Capital: This is the cumulative experiences of the members of the board. This refers to the overall knowledge posed by the board in terms of the expertise they bring to the decision making. (Gitonga, 2015).

Capital expenditure: Capital expenditure is an investment that entails an outlay in the present, in exchange for a payoff in the future. The future payoff is expected to exceed the value of investment hence providing a return that increases firm value and maximizes shareholders wealth (Al Farouque, Tony, Dunstan and Karim 2005).

Dividend pay-out: Dividend payout as amount of cash paid to shareholders expressed as a percentage of earnings per share (Ross, Westerfield& Jaffe 1999). Welch (2009) defined dividend payout ratio as the ratio of dividends to net income. In this study The dividend payout ratio measures what percent of earnings is paid out as dividends.

Financial Flexibility: Financial flexibility is a term used to describe a company's ability to react to unexpected expenses and investment opportunities. Financial flexibility is usually assessed by examining the company's use of leverage as well as cash holdings (Ma &Jin, 2016)

Financial performance: Financial performance is a subjective measure of how well an organization can use assets from its primary mode of business and generate revenues (Greenwood and Jovanovic, 2010). This term is also used as a general measure of a firm's overall financial health over a

given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

Firm Leverage: It's the use borrowed capital for (an investment), expecting the profits made to be greater than the interest payable (Kamotho 2014).

Firm liquidity: Firm Liquidity refers to investment in current assets and current liabilities which are liquidated within one year or less and is therefore crucial for firm's day to day operations (Kesimli&Gunay, 2011). Liquidity is very closely related to working capital which is the money needed to finance the daily revenue generating activities of the firm.

Moderator: It is a variable that specifies conditions under which a given predictor is related to an outcome (Hayes, 2013). This variable affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable.

CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter presents the background of the study, the statement of the problem, the research objectives of the study, the research hypothesis, scope of the study and the significance of the study.

1.1 Background of the Study

Companies' financial performance is a topic that has drawn a great deal of publicity, comments and concern from both financial analysts, academics, the general public and corporate agency management. It is possible to evaluate a company's financial performance in terms of profitability, dividend growth, product efficiency, and return on investment, among others. There is however, disagreement between many fields about how to assess the success of businesses and the factors that influence its financial performance of companies (Johl, Kaur, & Cooper, 2015).

Organizations need to enhance their efficiency in today's increasingly competitive market climate to keep up with the level of change in technology, consumer expectations and global competition. It is a big challenge for management everywhere to attain sustainable business efficiency to ensure long-term sustainability. Moreover, under hostile environmental pressures, smaller businesses have more trouble thriving than larger entities (Hosseini *et al.*, 2018). Financial Performance is the role of an organization's ability to obtain and leverage capital in many different ways to develop competitive advantage, according to (Marinova, Plantenga, & Remery, 2016).

Firm performance is the potential of the organization to accomplish expected outcomes as calculated against its anticipated outcomes. This covers results related to return,

business value and financial performance of shareholders (Oladele, 2018).Anwaar (2016), on the other hand describes business success as the capacity to accomplish its targets by using capital in an appropriate and productive manner.

In finance discipline, firm performance is attributed to attainment of key decision that broadly touches on investment, financing decision,liquidity decision and dividend decision. The study took the finance performance view from the finance discipline given both financial decision are made in the firm .Accordingly, financial performance can be described as the ability of a business to produce its expected financial results as calculated against its anticipated production. Dang, Ha, Tran, Van Vu, & Trung (2019) notice that there are no uniformly acceptable success metrics and thus, various measures should be used. In order to calculate financial efficiency, Rossi, Nerino, &Capasso (2015) uses return on assets (ROA), return on equity (ROE) and dividend yield (DY). Tobin's Q was used as a market-based indicator of financial success by Rokhmawati, Sathye, &Sathye, (2015).

Kodongo, Mokoaleli-Mokoteli, &Maina, (2015) argued that financial performance is used to track the success of an organization toward its business strategy and targets and to revisit them. Their analysis showed that financial results can also be used to compare related businesses in the same industry or to compare aggregated industries or sectors. El-Chaarani, (2015) noted that a strong predictor that affects the understanding of happiness and value is financial results. In the world, numerous studies have described financial performance and metrics of financial performance.

Song, Zhao, & Zeng, (2017) described performance as the matching of the market climate, policy, internal structure and control mechanism based on accounting and strategic management literature analysis, and therefore financial performance is

typically influenced by the factors that describe it. Shahwan,(2015) has argued that financial performance in monetary terms is an indicator of business strategies and activities. Financial output may also be defined as the degree to which organizations accomplish objectives and goals (Buallay, Hamdan, &Zureigat, 2017). Van Essen, Carney, Gedajlovic, &Heugens, (2015) further argued that economic priorities and social objectives are related, rendering financial performance inseparable from social objectives.

Kenya's financial performance in the Nairobi securities Exchange has been of concern to academic research and industry stakeholders. This is because financial performance has a critical impact on any country's economic growth and is generally considered to reflect a country's financial and economic conditions other than its role as an agent in an economy (Darko, Aribi, &Uzonwanne, 2016). Financial performance is also relevant not only to a company's creditors, but also to businesses within the same sector due to competition in the world economy (Adesina, Nwidobie, & Adesina, 2015). Ongore, K'Obonyo, Ogutu, &Bosire, (2015) proposed and grouped multiple financial performance indicators into three; marketing-based measures, accounting-based measures, and survey-based measures. Market-based financial performance metrics reflect the degree of shareholder satisfaction and include, among others, stock performance in securities markets, market returns, market value to book value (Wagner, Block, Miller, Schwens, & Xi, 2015).

Accounting based measures deal with internal efficiency of the firm and use historical information of performance. Accounting measures include return on assets (ROA), return on equity (ROE), earnings per share (EPS), assets utilization, assets turnover among others, while survey-based measurement consist of survey respondents who

provide subjective estimates for example an opinion on use of firms assets (Shahwan, 2015) market and accounting measures are the most widely used in research, Oladele, (2018). Traditional financial performance accounting metrics include ROA, ROE, EPS and price earnings ratio (P/E) while current financial performance measures include economic value added (EVA), market value added (MVA), cash flow return on investment (CFROI) and cash value added (CVA). Anwaar (2016) indicated that ROA and ROE have a good relationship as financial performance metrics for insurance firms and corporate governance variables. Shahwan (2015) proposed that the financial performance of banks could be measured as CAMEL parameters using capital adequacy, asset quality, management capacity and earnings research.

Adesina, *et al* (2015) concluded that CAMEL parameter ratios are crucial to banks' financial performance decisions, as higher ratios above the minimum criteria suggest that banks' financial performance patterns are strong. Song, *et al* (2017) concluded that the overall goal of the banks is to make money and further argued that the ROA, ROE, net interest margin was a major measure of performance in the estimation of bank profitability. Rokhmawat, *et al* (2015) examined financial performance in developed countries and argued that ROA and ROE are financial performance indicators that are applicable to corporate social responsibility. As the main financial performance indicators in Kenya, the current study included profitability, ROA and ROE. These metrics (ROA and ROE) entail efficiency, development or even consumer loyalty, according to Rossi, *et al* (2015), and demonstrate financial power, vulnerabilities, prospects and risks.

It is hypothesized that financial performance is impaired by a company's financial flexibility. The company's financial flexibility is used to define the willingness of a

company to adapt to unforeseen costs and opportunities for investment. Financial flexibility is generally measured by analyzing the utilization of debt and capital holdings by the organization (Yung, Li, & Jian, 2015). Other concepts that can be assessed when addressing the financial flexibility of a firm include; Firm liquidity, Firm leverage, dividend payout and the capital expenditure of the company.

Globally, financial flexibility is seen by most business managers around the world, including Europe and the Far East, as one of the most important determinants of their funding decisions (Johl, *et al* 2015). Financial flexibility is the most important aspect of deciding the composition of the resources of the company and can be used to preserve the potential of the debt in order to expand the company in the future or to minimize the debt to prevent the financial pressure of the economic crisis. In these advanced economies, including Russia, China and the US, managers often demand financial flexibility as the most significant successful element in businesses' debt decisions. By investing in tangible or financial estate, the financial flexibility of businesses may be saved.

For lenders, financial flexibility can be very profitable, since external funding is expensive (Graham and Harvey (2001)). By increasing liquidity and leaving the collateral value of the assets of the company, the company's stability, on the one hand, leads to a rise in debt potential and a reduction in the expense of bankruptcy. Shahwan, (2015), reveals that investing in new (or flexible) assets is expensive because, instead of existing assets, the business will invest in reproductive fixed assets. In general, as the complexity in the decision-making process is raised, the importance of versatile assets is often increased. Therefore the adjustments at the level of the debt reflect the

moderation that knowledge may provide in terms of the financial flexibility of the firms.

As the most critical determinant of capital structure (Graham and Harvey, 2001) and the key missing link to the empirically feasible theory of capital structure, financial flexibility is preferred by US companies (De Angelo and De Angelo, 2007). Latest research indicates that financial flexibility issues have an effect on financial practices, including liquidity management, capital structure, and dividend policies (Denis, 2011). Financial Flexibility is accomplished by the management of capital holdings, the initiation of dividends, the repurchase of shares and the unused leverage power (DeAngelo and DeAngelo, 2007; Denis, 2011; Denis and McKeon, 2012; Marchica and Mura, 2010). Apart from the firm's particular consequences, there is little research that links financial flexibility to the predictability of the return of shares. Using a specific measure, Rajput, Chen and Wongchoti (2013) find that financial flexibility is a robust negative determinant of the return on securities and capable of producing significant abnormal annual returns ranging from 17 per cent (13 per cent) on a weighted equivalent (value) basis.

Regionally empirical research on corporate financial flexibility in developed economies is scant (Adesina, 2015). Given the rapid globalization of the world economy in recent years, a better understanding of the impact of financial flexibility on firm activity in developing markets is essential. For companies in developing markets, foreign funding choices are significant challenges. One significant explanation is that in developing economies, capital markets remain largely underdeveloped.

The high volatility of capital flows in these countries is a problem that especially affects businesses pursuing foreign funds in developing countries (Wagner et al., 2015). There

is proof that competitive capital flows in developing markets limit the availability of capital and bank credit (Buallay, Hamdan, & Zureigat, 2017). Especially from Africa, there is still little research data about how executives view financial flexibility when making funding decisions, and whether financial flexibility is a value-enhancing strategy for their businesses.

Kenyan companies have received financing from either internal funds or external capital in an effort to reach a degree of financial flexibility. Debt funding and equity financing are the external sources of money. A financially flexible organization can have a high cash inflow from activities, large leveraging capabilities, or reserves that can be easily realized in substantial quantities (FASB, 1980). When lucrative prospects emerge, financially resilient companies are able to escape financial turmoil in the midst of crises and effectively finance acquisitions. Although financially stable businesses have better access to external capital markets to satisfy liquidity requirements resulting from unexpected earnings deficits and/or emerging growth prospects, less flexible companies are more susceptible to abrupt declines in their cash flows (Ongore, *et al*, 2015). However, these decisions are regulated by the board capitals of such companies especially the firms listed at Nairobi securities exchange.

A lot of research on board capital has struggled to achieve any conclusion on which elements of the board's structure and operational features impact individual business performance factors, generating unclear and often conflicting outcomes (Daily *et al.*, 2003; Dalton *et al.*, 1998; Johnson *et al.*, 1996). Most of the investigators rely on the philosophy of agency theory. In the position of CEO and chairman of the board, these assumptions recommend independent boards with a high number of global directors and no duality. The criticism of this method of study is that the composition of the board

of directors is usually viewed solely in terms of the number of internal directors to external directors, irrespective of the resources, expertise and skills or external relations that each director contributes to the board of directors (Hillman and Dalziel, 2003; Filatotchev, 2006; Clarysee *et al.*, 2007; McIntyre *et al.*, 2007; Minichilli and Hansen, 2007; Pugliese and Wenstøp, 2008; Kroll *et al.*, 2008; Kor and Misanyi, 2008; Sirmon *et al.*, 2008; Kim and Lin, 2010; Tian *et al.*, 2011). The ties between the board members (board capital) that combine the tools they offer and their ability to collaborate successfully with each other are also not considered in these works. These analyses usually ignore the performance that the Board earns from conducting its duties by looking at the direct relations between some aspects of the Board's composition and function and the firm outcomes (Petrovic, 2008; Nicholson and Kiel, 2004a).

As Daily *et al.*, (2003) point out, any progress in the measurement of the feasibility of the board requires the study of new fields of research. These new fields include analysis by the Board, introducing an interconnected focus from the point of view of human resources and social capital, which motivated this study to find a connection between board capital and financial performance. The concept of board capital has also been shown to influence financial performance of firms listed but studies as to how this moderates the relationship between financial flexibility and financial performance still requires further research (Marinova *et al.*, 2016). Hence this study made an attempt to fill this missing link by determining the interaction of board capital on financial flexibility and financial performance.

1.1.1 Nairobi Securities Exchange in Kenya

Dealing with shares and stocks began in Kenya in the 1920s, when the country was still a British colony. The business was not structured, and there were no laws and

regulations in order to regulate stock brokering operations. There was a 'gentleman's bargain, trading.' Regular commissions have been paid, with consumers being obliged to meet their contractual responsibilities to make a viable distribution and to settle related costs. Stock Broking was a sideline business at the time, owned by accountants, auctioneers, estate agents and attorneys, who met over a cup of coffee to exchange prices. There was no reason for affiliation as these companies became active in other areas of specialization. In 1954, the Nairobi Stock Exchange was established as a voluntary corporate association registered in the company law. As Africans and Asians were unable to trade in security, the sale of shares was limited to residents of the European Community until independence was achieved in 1963. Nairobi Stock Exchange Limited changed its name in July 2011 to Nairobi Securities Exchange Limited. The change of name represented the Nairobi Stock Exchange's corporate strategy to create a full-service securities exchange to facilitate the trade, clearing and settlement of equities, debts, derivatives and other relevant instruments. The Nairobi Securities Exchange changed in September 2011 from a limited partnership to a joint-stock corporation, introducing a new Memorandum and Legislation reflecting the transition. In October 2011, the broker's back office began operations. The scheme was to facilitate internet trading which has strengthened the credibility of the trading processes of the Exchange and expanded access to our stock market.

The Nairobi Securities Exchange has 65 companies (NSE). The firm is divided into two different businesses, the main division of the company and the alternative investment sector. These businesses were categorized into 10 fields. Currencies and related services, architecture and related services, electricity and petroleum. Fisheries, commerce and infrastructure, electronics and telecommunications, automobiles and accessories..

The capital markets of the Nairobi Securities Exchange are of particular significance in putting together funds from many investors to enable them to increase the long-term wealth of the listed firms, as well as by offering investors alternative ways to invest their surplus funds. A good stock market leads to economic stability by effective capital distribution and investment stimulus (Junkin, 2012). Capital markets play an essential role in financial intermediation by the movement of excess reserves from surplus to deficit units of the economy. More resources are important as the economy expands to accommodate massive capital markets growth. The primary function of the stock exchange is therefore to create a system by which owners and sellers interact for the purpose of shares and other financial instruments with publicly traded companies and government. However, there is no question that the securities market needs to stay stable in the long term because of the intermediary role of the securities market in the economy by connecting surplus units and deficit units. However, despite stringent controls carried out on companies contributing to the delisting or suspension of firms, differences exist in the financial performance of the listed entity.

1.2 Statement of the Problem

Financial performance is a strong determinant of the success and survival of the firms listed in Nairobi Securities Exchange in Kenya, depending on the motive of various stakeholders (Nabalayo *et.al*, 2014). Financial performance of firms is important not only to the shareholders but also to stakeholders at large just as attributed by stewardship theory proponents. Similarly Kenya rely heavy on firms Listed in Nairobi securities exchange for economic and employment creation. Consequently important decisions, including financial flexibility decisions that affect their financial performance of companies listed on the Nairobi Securities Exchange in Kenya is depend on board capital . Financial flexibility is regarded by most senior general

managers around the globe to be one of the most significant determinants of their capital structure decisions (Shahwan, 2015).

Academic research suggests that the reasons for achieving financial flexibility are linked to the potential capacity and need of businesses to collect foreign funds and restructure their low-cost funding (El-Chaarani,2015). Companies with financial flexible have better access to global capital markets to satisfy financing requirements resulting from unexpected earnings shortages and/or emerging growth prospects, and thereby escape conditions that can contribute to bad results and sub-optimal expenditure. Ideally firms are listed to improve on their financial Performance, growth,profitability and wealth maximization in mind but difference due occur yet this business plays a vital role in economy.

However, despite this, inequalities remain operationally. For example, most businesses listed in Kenya do not have an ideal capital structure because, opposed to debt, a greater proportion of their operations are funded by equity securities. Between 2008 and 2010, listed companies funded their activities with 76% of equity compared with 24% of debt (NSE 2018). Many of these businesses have been subjected to financial threats that may have negatively impacted their activities from such a warped system, with the eventual risk being financial turmoil that could further lead to collapse, yet firms play an important role in the economy as drivers of growth and economic development. According to NSE 2018 firm delisted in 2015 were Access Kenya,Africa online,and uniliver Kenya. while 2017 were Hutching Biemer limited,A.Baumann&Co limited were delisted . A total of 17 out of the 65 companies listed on the Nairobi securities exchange were declared to be financially troubled in 2017 (Anwaar, 2016).

These firms listed at NSE have different financial problems and board capital is hypothesized to be one of the main contributors to the fluctuations in the financial risk of the business as a result of the company's financial flexibility. Current data suggests that the firms listed in Nairobi Securities Exchange are reasonably flexible financially. However, the overall success of the company has been influenced differently by inequalities in the degree of financial flexibility. In view of the fact that the degree of financial flexibility relates to the board capital of the group, it is then important to determine the moderating impact of the board capital on the relationship between the financial flexibility and the financial performance of the entities listed.

Previous studies have demonstrated that companies' spending potential can be improved by budgetary slack, spare debt capacity and dividend decisions aimed at retaining financial flexibility for corporate organizations.

However these studies have not factored in the role of board capital in these relationships and therefore the study filled this gap by determining the interaction of board capital of financial flexibility on financial performance.

1.3 Research Objectives

1.3.1 General objective

The objective of the study is to determine if board capital has an interaction on the relationship between financial flexibility and financial performance of firms listed at Nairobi Securities Exchange in Kenya.

1.3.2 Specific objectives

The study was guided by the following research objectives, To;

1. Determine the effect of firm liquidity on the financial performance of firms listed at Nairobi Securities Exchange in Kenya.
2. Establish the effect of firm leverage on the financial performance of firms listed at Nairobi Securities Exchange in Kenya
3. Establish the effect of dividend pay-out on the financial performance of firms listed at Nairobi Securities Exchange in Kenya
4. Determine the effect of capital expenditure on the financial performance of firms listed in Nairobi Securities Exchange in Kenya.
5. Determine the moderating effect of board capital on the relationship between financial flexibility and financial performance
 - 5.a Determine the moderating effect of board capital on the relationship between firm liquidity and the financial performance of firms listed at Nairobi Securities Exchange in Kenya.
 - 5.b Determine the moderating effect of board capital on the relationship between firm leverage and the financial performance of firms listed at Nairobi Securities Exchange in Kenya.
 - 5.c Determine the moderating effect of board capital on the relationship between dividend pay-out and the financial performance of firms listed at Nairobi Securities Exchange in Kenya.
 - 5.d Establish the moderating effect of board capital on the relationship between capital expenditure and the financial performance of firms listed at Nairobi Securities Exchange in Kenya.

1.4 Research Hypothesis

The study was guided by the following research hypothesis

H₀₁: There is no significant effect between firm liquidity on the financial performance of firms listed at Nairobi Securities Exchange in Kenya.

H₀₂: There is no significant effect between firm leverage on the financial performance of firms listed at Nairobi Securities Exchange in Kenya.

H₀₃: There is no significant effect between dividend pay-out on the financial performance of firms listed at Nairobi Securities Exchange in Kenya.

H₀₄: There is no significant effect between capital expenditure on the financial performance of firms listed at Nairobi Securities Exchange in Kenya.

H_{05a}. Board capital does not moderate the relationship between firm liquidity and financial performance of listed firm at Nairobi Securities Exchange in Kenya.

H_{05b} Board capital does not moderate the relationship between firm leverage and financial performance of listed firm at Nairobi Securities Exchange in Kenya.

H_{05c} Board capital does not moderate the relationship between dividend pay-out and financial performance of listed firm at Nairobi Securities Exchange in Kenya.

H_{05d} Board capital does not moderate the relationship between firm liquidity and financial performance of listed firm at Nairobi Securities Exchange in Kenya.

1.5 Significance of the Study

Academicians and researchers: The study provides information to scholars since shows the gaps requiring the need for pursuing further studies in this area in the area under research. The motivation of this study was based on the manner in which board capital have in interacting with financial flexibility and financial performance. It therefore have theoretical as well as practical significance to academicians and researchers in the same field in addressing the existing research gap. The study formed a basis for future scholars to conduct further research on the matter since other scholar had contradicting view of whether financial flexibility increase, reduce or had no effect on financial performance. While this study confirmed that financial flexibility and board capital positively influence financial performance.

Management: This study is of great importance to management/chief executive officers and boards of directors of firms listed in Nairobi securities exchange in Kenya, in understanding the role played by financial flexibility and board capital on financial performance. It is of great benefit to the potential and existing shareholders of firms listed in Kenya who would also benefit from the study as they would be able to know what financial flexibility can tell them about a company and how the decisions of the board members can affect the financial performance of the companies. This is key in providing further insight to them to make the correct decisions regarding the capital structure of the firms.

Strategic leaders: Consultants in the financial practices sector would be informed on how best they can advise their clientele in terms of selection and appointment of the boards to influence the financial performance of firms both listed and non-listed. This study contributes important information that can inform consultants and add to their

knowledge base making them more relevant in the industry It also provide guidelines to strategic leaders for the effective use of finance and expertise on the board to positively contribute to organizational growth. The research could also be used by advisory experts and researchers as it is expected to provide information on the research area of financial flexibility and board capital.

Policy makers:The study is of great importance to the board and the shareholders of the listed companies as they would be able to understand the importance of board capital. The need of cumulative experiences of the board in enhancing the financial performance of the firms would be understood by both the board members and the shareholders and inform them on the process of selecting board members in future for firms listed in an effort to influence the performance of these firms and other organizations in which the findings of this research can be utilized as its finding can be accessed online after a maximum period of one year of completion from the repository of Moi university and National Commission for Science, Technology & Innovation (NACOSTI) database.

Government: The findings in this study helps in achievement of global competitive goal, vision 2030 which was launched the year 2008, through creating a global competitive, diversified and prosperous country by improving the performance of Kenyan firms listed in Nairobi Securities Exchange. As these firms plays a crucial role in utilizing the board capital capabilities in enhancing proper utilization of funds resulting to improve performance.

Contribution to literature: In theory and literature this study provides resourceful and more information in the existing literature, linking financial flexibility, board capital and financial performance. In addition, the study gives more knowledge on moderating

effect of financial flexibility on financial performance. Finally, the study serves as a point of reference to academicians interested in this area and other related topics.

1.6 Scope of the Study

The scope of this study was to determine financial flexibility from the perspective of independent variables which include; firm liquidity, firm leverage, dividend pay-out and capital expenditure. The study was also limited to financial performance as the dependent variable measured in terms of ROA and board capital as the moderating variable measure in terms of education level and experience

The thesis was carried out by a quantitative research design. The sample population consisted of all the companies listed on the Nairobi Securities Exchange of Kenya over the 10-year period from 2008 to December 2017 which was 65 firms .However after considering companies delisted and without complete data only 40 firms met all conditions hence 400 observations formed the basis of the study from the ten years period.

The research used secondary data derived from the audited financial accounts and annual reports of individual companies over the ten-year period. Data was analyzed using the Stata version 13 statistical tool.. The data is gathered over a period of five months from April to August 2020.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews the theories underpinning the study, past research on the research objectives including the effect of firm liquidity, firm leverage, dividend payout and capital expenditure firms listed in Nairobi Securities Exchange on financial performance. The chapter also reviews the concept of the independent variable, that is, financial flexibility, dependent, that is financial performance on the moderating variable which was the board capital of the firms listed at Nairobi Securities Exchange Kenya.

2.1 Concept of Financial performance

Financial performance is a subjective measure of how well an organization can use assets from its primary mode of business and generate revenues (Johl,*et al*, 2015). Its also the ability and capability of the firm to operate efficiently, effectively in profitable manner despite external environment threats but the same organization utilizes the prevailing opportunities to expand their market share growth (Samadquadri, 2013). Financial performance also is a concept that refers to the process of measuring results of the firms policies and operation in monetary terms within a certain time frame (Jayawardhana, 2016). This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. There are many different ways to measure financial performance, but all measures should be taken in aggregation. Line items such as revenue from operations, operating income or cash flow from operations can be used, as well as total unit sales (Oladele, 2018).However the concept of financial performance still remains a controversial issue

in business research because no single theory explain which method can lead to better and sustainable performance (Fatoki and Olwenyi, 2017). According to (Ittner, *et al.*, 2003), Performance is supreme since it helps in allocation of resources as well as finding the progress toward goal attainment. Financial performance is used to gauge how well a firm utilizes its assets to generate revenue (Graham & Harvey, 2001) likewise Financial performance is estimate of the financial well being of the firm (Berger, *et al.* 2007) and a bridge to earn competitive advantage (Iswatia & Arishoria, 2007)

Profit is the ultimate goal of firm. To measure the profitability, there are varieties of ratios used of which Return on Asset, Return on Equity and Net Interest Margin are the major ones (Rokhmawati, Sathye, & Sathye, 2015). Return on Asset is a major ratio that indicates the profitability of a firm. It is a ratio of Income to its total asset (Marinova, Plantenga, & Remery, (2016). It measures the ability of an organizations management to generate income by utilizing company assets at their disposal. Net Interest Margin (NIM) is a measure of the difference between the interest income generated by firm and the amount of interest paid out to their lenders, relative to the amount of their assets. It is usually expressed as a percentage of what the financial institution earns on loans in a specific time period and other assets minus the interest paid on borrowed funds divided by the average amount of the assets on which it earned income in that time period (the average earning assets). ROE is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholder equity invested or found on the balance sheet. ROE is what the shareholders look in return for their investment (Oladele, 2018).

Empirical literature examines how financial and non-financial factors, such as number of employees, market share, number of branches and management competence index have an influence on the firms' financial performance and growth (Song, Zhao, & Zeng, 2017). A large portion of financial institutions revenue is generated from credit extended to various individuals and organizations. This revenue is in the form of interest earned and charges on the preparation and management of the credit process (Song, *et al* 2017).

Financial performance is very key in firms listed at NSE as ideally firms are formed with profit or wealth maximizations in the mind. However the listed companies have varied performance and since the financial flexibility and board of directors decision are geared towards improving financial performance thus made it the basis of financial performance being dependent variable .

2.2 Concept of Financial Flexibility

The term financial flexibility is used to describe a company's ability to react to unexpected expenses and investment opportunities. Financial flexibility is usually assessed by examining the company's use of leverage as well as cash holdings (Yung, Li, & Jian, 2015).

The majority of senior corporate managers around the world consider financial flexibility as one of the most important determinants of their capital structure decisions (Ferrando, Marchica, & Mura, 2017). The academic literature argues that the motives to attain financial flexibility are related to the future ability and need of firms to raise external funds and restructure their financing at low cost (Alipour, Mohammadi, & Derakhshan, 2015).

Firms with financial flexibility enjoy easier access to external capital markets to meet funding needs arising from unanticipated earnings shortfalls—and/or new growth opportunities—and hence, avoid situations that may lead to suboptimal investment and poor performance.

Financial flexibility is a degree of firm's capacity that can mobilize financial resources towards reactive activities to maximize the value of firm. Financial flexibility enables business units to take advantage of the unexpected opportunities and they can continue their activity and survive during the time that cash flows from operations are low and possibly negative and the reason can be unexpected decrease in demand for manufactured products. Financial flexibility is the ability of firms to supply the financial resources to respond appropriately to opportunities and unexpected events, and to maximize the value of firms (Bassiouny, 2016).

In theoretical concepts of auditing standards, financial flexibility is defined as the firm's ability based on effective actions to change the amount and timing of cash flows, therefore, business unit would be able to react in confronting with unexpected events and opportunities (Ramiah, Zhao, Moosa, & Graham, 2016). Business units with financial flexibility are able to resist in front of financial pressures, in addition, in the case of profitable opportunities, they can provide funds for investment with minimum cost. On the other hand, investors always on the basis of contained information in the financial statements and based on market conditions, consider degree of risk to their investment and due to this risk they form the respective return. If a company achieves lower return than the expected return by investors, naturally it will be faced with difficulties to attract its necessary capital.

On the other hand, if the company acquires higher levels of return (abnormal return), investors will be willing to invest more in the company (Bassiouny, 2016).

Loderer, Stulz, & Waelchli, (2016) investigated the impact of investment scale on driving the relationship between the financial flexibility and the performance of the firms listed in the Chinese Bursa in the period 2010-2013. The study was conducted on a sample of 1496 observations. The findings of the study revealed that there was a big effect on the financial flexibility on both: the investment and the performance. Thus, the Chinese firms tended to emphasize the investment expansion to improve the firm performance. Hossain, & Hossain, (2015) examined the sensitivity of cash flow and the financial flexibility through concentrating on any effect of the internal owners on the financial flexibility for the firms. By conducting this study on American firms during the period 1992-2009, the study revealed that the relationship between the corporate governance, the cost of the external financing and the internal ownership affected the financial flexibility through agency costs.

Moreover, the study by Hossain, & Hossain, (2015) stated that the financial flexibility became higher when the ownership of the executive directors was less than 8%, and also when the ownership of non-executive directors was, in average, between (0.12 %- 0.43%); the effect of the ownership of the non-executive directors on the financial flexibility was low. On the other hand, Harris, (2014) studied the relationship between the financial flexibility (through securities buyback) and the capital structure for all listed in the database of the financial, statistical and market information during the period 1970-2013, except those firms with codes 6000-6999 and 4900-4999, as the buyback process was not listed in 1970 or the sales of these firms or their total assets were less than zero. The results of the study found out that the financial flexibility

was one of the higher considerations by the financial managers in determining the level of the fixed debt and the securities buyback improved the financial flexibility.

Ayaydin *et al.*(2013) explored the effect of the financial flexibility on the investment and the performance of firms in East Asia in period 1994-2009 on a sample of 1068 firms. The study focused on the Asian Crisis between 1997-1998 and Credit Crisis between 2007-2009. The study showed that the financial flexibility was a main factor for investment and performance especially during the Asian Crisis; the firms that had a greater level of financial flexibility before the crisis enjoyed a greater capacity for the investment opportunities and relied on the internal money (Buvanendra, Sridharan, & Thiyagarajan, 2017).

The study also revealed that the firms that were financially flexible prior to this crisis had a greater ability to take investment opportunities, relied on the availability of internal funds to invest, and performed better than the less flexible firms during the crisis. Baños-Caballero, García-Teruel, & Martínez-Solano, (2016) studied the significance of the varied sources of the financial flexibility that enabled firms to confront the negative shocks or the unexpected investment opportunities during the years 1995-2011. The study concluded that there were notable differences among the sectors in the way of solving the lack of cash; these sectors sell their assets to face the cash deficit. However, Chen, Harford, & Lin, (2017) stated the impact of financial flexibility was both statistically significant and economically sizeable.

It also revealed that the financially flexible firms not only invested more, but also invested better. The study was conducted on all firms listed in the Britain market during 1965-2008 except the financial firms because of the difference in their capital structure, so the population of the study was 677 firms. To analyze the performance, the researchers collected the data of the monthly returns of the companies' shares among other financial indicators. On other hand, Loderer, *et al*, (2016) studied the impact of the financial flexibility on investment and performance on a sample of 1068 firms affected by the Asian crisis during 1997-1998. These firms were listed in the markets of Hon Kong, Indonesia, Malaysia, South Korea and Thailand as they were the most affected Asian economies by this crisis. The study found out the firms that were financially flexible prior to the crisis had a greater ability to take investment opportunities, relied much less on the availability of internal funds to invest and performed better than less flexible firms during the crisis. The results also suggested that leverage-based flexibility indicators were better predictors of corporate investment (Loderer, *et al*, 2016.)

Given that raising capital is a core purpose motivating a company to list its shares in an securities market, a firm with higher liquidity would not need to list in a large foreign capital market as much as one with lower liquidity. For this reason, Doidge *et al*. (2009b) counted financial flexibility as a possible predictor for a firm, with high financial flexibility typically have high cash and liquid assets, provide more dividends to their investors, and spend less on capital, which can be interpreted as high liquidity and low financial constraints (Yung, 2015)

Adesina, Nwidobie, & Adesina, (2015), in his study examined the relationship between structure of capital and financial flexibility, and used stages of life cycle in firms as a

substitute for financial flexibility. The results showed that at birth stage, for financing, firms publish securities and they maintain little leverages. Firms in the growth stage, for financing, use debt and they maintain high leverage. Firms in the maturity stage use domestic resources and they have a balanced leverage.

Buallay, Hamdan, & Zureigat, (2017) have researched about the relationship between financial flexibility and investment decisions and it was concluded that, there is a strong relationship between investment and financial flexibility; in other words, after a period of low leverage policy, firms with financial flexibility have ability to pay capital costs.

Oladele, (2018) in their study have investigated the relationship between financial flexibility and investment opportunities during the years 2006 to 2011. The results of this study showed that, there is a significant and positive relationship between financial flexibility and investment opportunities. This means that firms with financial flexibility use investment opportunities appropriately and hence they have high levels of profitability. In fact, there is a positive and significant relationship between financial flexibility in Marchyka's method and investment opportunities in Clark's method. But in Fama and French's method there isn't any positive and significant relationship between financial flexibility and investment opportunities, so the main hypothesis of the study was confirmed.

Yung, *et al*, (2015) in his study examined the relationship between financial flexibility and capital structure decisions of listed companies in Tehran Securities Exchange during a five-year period of payment from 2006 to 2010. Sample of study consisted of 82 firms of listed companies on the Securities Exchange of Tehran.

The results of this study showed that, the marginal value of cash is negative from the perspective of market. Also, there isn't a significant relationship between marginal value of financial flexibility and capital structure decisions of the firm. And that firm doesn't take into account, firm's flexibility level in increasing or decreasing of their debts. In long term it can cause to the loss of financial flexibility and loss of profitable investment opportunities for firm.

2.3 Concept of Board Capital

Board capital is a construct introduced in a study by Sun, Hu, & Hillman, (2016) of Arizona State University. They defined board capital as 'as the sum of the human and social capital of the board of directors, and a proxy for the board's ability to provide resources to the firm'. Obviously, in terms of providing resources to the organization, board directors give advice and counsel on key areas, such as the formulation of strategy (which boards then approve), using their skills and expertise Sun,*et al* (2016). Human capital awareness and management skills are not typically in a board director's toolkit; since people are an important asset of the organization and an essential driver of performance and productivity.

In its resource provision function, the board provides advice and counsel to the firm on substantial matters such as strategy formulation, access to information outside the firm, preferential access to valuable resources through personal connections, skills and expertise, and legitimacy (Pfeffer and Salancik, 2018). However, while board capital may be easily understood as the combination of human and social capital of the directors, scholars often note the interdependent nature of human and social capital (Nahapiet and Ioshal, 2018), and the inability to isolate the effects of one from the other. Board capital is defined as the directors' capacity to perform their duties (Jermias,

2018). This concept was enlarged by Courtemanche *et al.*, (2019) by identifying four attributes of board members: expertise, experience, specific knowledge of product and supply markets, and prestige. Hillman and Dalziel (2013) provide an in-depth description of the role of the board of directors as a resource provider. They present the resources that the board provides to the organization in the form of capital, distinguishing between human and relational capital. Human capital comprises the board's expertise, experience, knowledge, reputation, and skills. Relational capital is defined as the network of ties that the board creates between the organization and the external environment.

Boards can participate in the strategic process in many ways. For instance, they can review and approve strategic plans drawn up by senior executives in order to protect shareholder interests (Fama and Jensen, 1983), or they can actively contribute to strategy formulation by offering recommendations on executive-developed plans, assessing the underlying strategic hypotheses, and reviewing strategy implementation issues (Pfeffer and Salancik, 2018). Baysinger and Hoskisson (2015) applied a typology of financial versus strategic control and uncovered a significant link between the board of directors and strategy, suggesting that a basic prerequisite for the board to be involved in strategic formulation is to have at least some knowledge about the company's business operations.

Judge and Zeithaml (2015) investigated institutional approaches and strategic choices to determine the impact of internal environment and board participation in strategic formulation on organizational performance.

Their results suggest that boards that are actively involved in the strategic process are associated with better performance, as they bring different perspectives and greater objectivity to strategy development and strategic assessment. Using a contingency approach, Pearce and Zahra (2012) examined the influence of external environment, organizational strategy type, and past organizational performance on board composition, as well as the influence of board composition on future organizational performance.

Peng, Mutlu, Sauerwald, Au, & Wang, (2015) recently found that if boards had experience in a particular situation facing the firm like an acquisition bid, or had specific expertise that allowed them to understand the inner workings of the organization better, monitoring was improved. The skills, experience, expertise, and knowledge on a board are likely to affect its effectiveness at monitoring the CEO, evaluating strategy implementation, planning succession, and rewarding top management. Boards without relevant capital lack the ability to discern between appropriate courses of action, for accurately conduct performance evaluations, and for effectively identify successors. Therefore, he assert that board capital is positively associated with the provision of resources and is positively associated with monitoring.

A study by Johl, Kaur, & Cooper, (2015) whose objective of was to determine the role of board capital on strategic turnaround of Kenya Commercial Bank. Collected data using the interview guide while the secondary data was collected from publicly available data, including annual reports, management discussion and analysis (MD&A) reports, proxy circulars, notices of annual shareholder meetings, press releases, and media articles, including Internet sites, the study performed an in-depth data analysis using content analysis and pattern identification as the main data analysis methods.

The study found that that board capital measures such as expertise, prestige; knowledge of market and products, as well as professional experience was inherent in the bank's board of directors. The study found that the board played a significant role in the turnaround process. Board efforts were specifically geared towards the lenders, suppliers, customers, employees, and shareholders. The study found that to a large extent, the board of directors had influenced product innovation in the bank. The study revealed that to a very large extent, they had influenced the company's mission and vision statements. This is because the bank's mission and vision statements had changed over time. The study found that the board was to a large extent influential in business differentiation, product diversification and the entire turnaround process (Ramón-Llorens, García-Meca, & Pucheta-Martínez, 2018).

The study concludes therefore that the board capital of the bank was very instrumental in shaping the course of the bank in terms of turning around its dwindling performance at the time. The new board members that came in had the mission of turning around the fortunes of the bank. With their experience, they were able to convince the suppliers, customers, employees, lenders, and shareholders to stay put throughout the tough times. The study also concludes that the efforts of the board were very fundamental in shaping the strategic direction of the bank through change of company vision and mission statements. They were also instrumental in product innovation and differentiation efforts of the bank (Ramón-Llorens, *et al*, 2018).

The findings of this study leads to the researcher to make the following recommendations for policy and practice:

The management of other companies in turnaround processes should emulate the practice used by the Kenya Commercial Bank by having experts in the board with

varied professional experiences and knowledge of banking sector if they are to turnaround. There is need for the bank to incorporate into the board members with international experience. This is because the current bank's strategy has shifted from focusing on the local market to the regional market. It will therefore need the strategic insight of those with vast knowledge in international business operations to streamline the course of the bank for now as they expand into the regional markets (Gaur, Bathula, & Singh, 2015).

A study on the effect of board characteristics on the financial performance of firms listed in the manufacturing and allied sector of the Nairobi securities exchange by Tarus, & Ayabei, (2016) found that corporate boards oversee executive decision making and proper tactical and strategic advantages to firms. The relationship between board characteristics and firm financial performance has been widely studied with the aim of establishing the board characteristics that significantly affect financial performance. This study investigated the effect of board characteristics variables of board size, board independence, board diversity, board compensation, CEO duality and audit committees on financial performance, as measured by return on assets, return on equity and Tobin's Q. The study is based on the manufacturing and allied sector of the Nairobi Securities Exchange for the period 2009 to 2012. Secondary data was collected from the publicly available annual reports and financial statements of the companies, with further corporate governance and market performance data gathered from Capital Markets Authority library and Nairobi Securities Exchange website respectively. Regression analysis, correlation analysis and descriptive statistics were used to analyze the data collected using Stata statistical software.

The study found that board independence has a significant negative correlation with financial performance as measured by Return of Equity, Return on Assets and Tobin's Q. Board diversity was also found to have a significant positive effect on financial performance as measured by Tobin's Q. However, Board size, board compensation, CEO duality and Audit committee were found not to have a significant relationship with financial performance (Tarus, & Ayabei, 2016).

A study by Fiador, (2016) on Board Of Directors characteristics is a subset of the study of corporate governance. Poor corporate governance practices have been blamed for the devaluation of the shareholders' wealth. They have been blamed for the failure of multinationals. This study investigated the effect of BOD characteristics on the financial performance of the 64 companies that are listed in the Nairobi Securities Exchange. The study would have considered all the companies listed but due to the difficulty in calculating leverage for companies listed in the financial sector, only 42 firms were included in the study. Even though there are many BOD characteristics, only four were considered. These are financial literacy of the BOD members, the size of the board in terms of number of directors, the number of BOD meetings per year and the independence of the board which was assessed by calculating the ratio of independent directors against executive directors.

The research design approach used was descriptive research design approach and focused on the firms listed between 2010 and 2014. Firms listed in the financial segment of the NSE were not included in the study due to the difficulty in calculating their leverage ratio. This study used secondary data that was sourced from the firms' financial statements filed at the NSE and CMA library. The characteristics of the BOD were logged in the model as the independent variables. Financial performance was

captured in the model as the dependent variable. Control variables were leverage and firm size. Regression was used to estimate the relationship amongst the variable. This study found that number of board meetings, board size and financial literacy to be statistically significant in determining firm performance while BOD independence was found not to be of statistical significance.(Fiador, 2016).

A study on Asian market by McGuinness, Vieito, & Wang, (2017) was carried out using dynamic system generalized method of moments (system GMM) estimator is used to examine a panel data-set consisting of 315 firm-year observations over a four-year period from 2008 to 2011. In line with resource dependence theory, it reports that the human capital of directors appears to have a positive influence upon a firm's financial performance. To the best of their knowledge, this study was the first work on the topic of human capital of directors and firm performance for publicly listed companies in Vietnam. This study, by applying a dynamic longitudinal modeling approach, extends the recent literature on board human capital as well as more generally to the corporate governance literature by providing robust empirical evidence showing that the general human capital of board directors may add value to firms. Their finding, therefore, supports the efforts made by Vietnamese policy-makers in setting up qualification standards as well as skills diversity for the boards (McGuinness,*et al* 2017).

The study concluded that human capital of directors is a significant determinant of firm outcome. This finding is consistent with the perspective of resource dependence theory, and robust to alternative proxies for financial outcome, including market-based and accounting-based financial performance measures. Unlike previous studies that often ignore the endogeneity issues, this study explicitly controls for the potential sources of

endogeneity arising in the relationship between the human capital of directors and performance. In particular, this study adopts the dynamic system GMM model to account for unobserved heterogeneity, simultaneity, and dynamic endogeneity. It is found that the results remain unchanged even if the above-mentioned endogeneity concerns are taken into consideration (McGuinness, *et al* 2017).

Hossain, &Hossain, (2015) study sought to investigate the effects of Corporate Governance on the financial performance of listed insurance companies in Kenya. The research objectives were to establish the effect of board size on the financial performance of listed insurance firms, Ascertain the effect of board composition on the financial performance of listed insurance firms. Examine the effect of CEO duality on the financial performance of listed insurance firms and to examine the effect of leverage on the performance of listed insurance firms. This study adopted a descriptive research design. The study population was all those insurance Companies which were quoted on the Nairobi Securities Exchange as at December 2012. Questionnaires were used collect data from the staff in these listed insurance firms. Stratified random sampling technique was used to obtain the sample staff for the purpose of administering questionnaires.

The findings showed that a strong relationship exist between the Corporate Governance practices under study and the firms' financial performance. Board size was found to negatively affect the financial performance of insurance companies listed at the NSE and Leverage was found to positively affect financial performance of insurance firms listed at the NSE. The study concluded that leverage of the firm positively influenced the financial performance of insurance firms listed in the NSE.

Various aspects of board size affect the financial performance of insurance to a great extent. Composition of the board positively influence the financial performance of

insurance companies listed to a great extent. The study recommends insurance companies to consider their board size since it plays an important role in determining financial performance (Hossain, & Hossain, 2015).

Buvanendra, Sridharan, & Thiagarajan, (2017).study in Pakistan Securities Exchange (PSX) whose research objective was to determine the impact of corporate governance on Financial performance of cement manufacturing firms in Pakistan employed a descriptive research design was employed which involves the collection, analyses and modeling of data to analyze the hypothesized relationship among these variables. The data collected regarding corporate governance, financial performance and risk is scrutinized using descriptive statistics: mean and standard deviation and Pearson Product Moment correlation analysis.

The findings indicated that Insider directors, institutional shareholdings and board independence effect return on equity. Insider directors enhance financial performance of firm and Insider directors, institutional shareholdings and board independence positively affect return on assets. The study concluded corporate governance positively effects financial performance and there is a significant effect and relationship between corporate governance and financial performance.

2.4 Theoretical Review

This section reviews relevant theories in the area of financial flexibility and financial performance. A theory is a systematic explanation to an occurrence and a researcher should be conversant with those theories applicable to his area of research (Durham & Stokes, 2015; Shapira, 2011).

For firmly grounding the study theoretically, one or two theories were reviewed for each variable and at least one model for each variable under study. The theories reviewed relate to; financial performance, liquidity, leverage, dividend pay-out and capital expenditure.

Wacker, (1998) argued that good theories should be established in order to support research, based on the relevant guidelines and each research guideline offered is based upon 'good' theories' virtues. "Since 'good' theory's virtues are weighed against each other, judgment is necessary to determine the relative importance of each virtue and each guideline. Still, theory-builders can use more than one theory guideline to increase their research's significance" (Wacker, 1998). Webster and Watson, (2002) also argued that theories in research should clearly articulate the paper's contributions and ways of demonstrating contributions may include providing a new theoretical understanding that helps to explain previously confusing results. This is possible by bringing together other different theoretical streams of work to help shed light on a phenomenon under study (Webster & Watson, 2002).

Key theories such as stewardship theory, liquidity preference theory, trade off theory, and resource based theory were reviewed in respect to dependent and independent variables.

2.4.1 Stewardship theory

The philosophy of stewardship was proposed as a normative complement to the agency theory by Donaldson and Davis, (1989). While the Agency's ideology implies that leaders and agents have divergent motivations and that agents are fundamentally self-serving and self-centered, a diametrically opposite perspective is maintained by the stewardship principle.

It ensures that the agents are essentially trustworthy and good stewards (directors and managers), which makes oversight obsolete (Donaldson 1990; Donaldson & Davis, 1991; Donaldson & Davis, 1994; Davis et al., 1997). "Donaldson and Davis (1991, p. 51) state that "organizational position holders are meant to be inspired by the desire to succeed, to attain intrinsic fulfillment by successfully doing intrinsically demanding jobs, to exert accountability and authority, and thereby to obtain respect from colleagues and superiors." From the point of view of steward, administrators and management are seen as corporate stewards Managers like trustees are expected to raise owners' income. Davis, *et al* (1997) suggest how managers learn more from pursuing organizational targets than from acts that are acceptable to themselves.

Davis, *et al* (1997) suggests that the pursuit of corporate achievement often meets the stewards' personal needs. The philosophy of stewardship suggests that managers should be granted confidence-based authority, which minimizes the expense of managers and directors observing and managing actions. There is a "fusion of individual ego and the company" as managers have represented a company for a significant amount of time (Donaldson & Davis, 1991, p. 51). The philosophy of stewardship claims that the actions of management are often affected by non-financial reasons, such as the need for accomplishment and appreciation, the inherent fulfillment of good results, plus reverence for authority and work ethics.

Davis, *et al.*,(1997) say that management associate with the organization and it contributes to the company's performance or loss being customized. Daily, *et al.*, (2003) say that administrators and managers are still interested as responsible decision-makers in preserving their reputation.

As a result, managers run the enterprise in a way that maximizes financial results and consumer returns, as the company's output directly affects the view of the individual output of management. Fama,(1980) indicates that executives who are involved as business stewards are often profitable when handling their own careers. Shleifer and Vishny, (1997) endorsed this opinion, suggesting that executives build a good image that allows them to re-enter the capital markets for the company's potential needs, offering customers better financial needs financial returns. From the point of view of the principle of stewardship, the company's superior success was related to having a majority of the board's internal (executive) members because they understand the company best within directors (managers) and are better positioned to govern 27 than outside directors, and can thus make superior choices (Donaldson, 1990; Donaldson & Davis, 1991).

The stewardship theory suggests that the powerful power held by seasoned leaders helps them to maximize corporate production and company income. Consequently, for their breadth of experience, access to latest operational statistics, technological competence and loyalty to the business, insider-dominated boards are preferred. Similarly, the duality of the CEO (i.e. the same person holding the position of chairman and chief executive) is regarded favorably because, thanks to consistent and coherent leadership, it contributes to better company performance (Donaldson & Davis, 1991; Davis, *et al.*, 1997). Several studies support the point that insider directors (managers) with a higher amount of experience make superior decisions (Baysinger&Hoskisson, 1990; Baysinger, Kosnick& Turk, 1991 and Boyd, 1994). Muth and Donaldson,(1998) contrasted agency theory forecasts with the theory of stewardship and discovered that support for the theory of stewardship was a simple model of reality.

Bhagat and Black, (1999) suggested that businesses with boards composed of a larger number of external directors representing expertise in agency philosophy do poorly than companies with less external directors on boards. As such, both conceptually (e.g., Davis,*et al.*, 1997) and even empirically, there is some consensus for the stewardship viewpoint (Bhagat & Black, 1999).

Instead of the solely self-interested empirical economic philosophy of the Corporation, the stewardship paradigm focuses on governance, while 'the steward' claims that owners have lost control of the corporate entity's ideology, embedded in economics and finance, examines the complexities of capitalism, sees only self-interested actions, and concludes that 'this is human existence and negation.' Any opinions of business literature are well supported (Argyris 1964; Herzberg 1966; McClelland 1961). Managers are seen as being successful and able to operate with a high degree of independence for the good of consumers (Donaldson and Davis 1991). They are essentially good stewards of organizational properties, committed to the company.

The philosophy of stewardship holds that a manager can conform with a sense of responsibility and identification with the company when faced with a course of action perceived as individually unrewarding (Etzioni 1975). The belief that managers have a wide variety of motivations and actions beyond self-interest is the basis for arguing that reasonable disagreement should not be implicit in the division of ownership. In order to enhance organizational efficiency or protect shareholder interests, blanket restrictions extended to all managers may not be the solution.

The philosophy of stewardship suggests that the reallocation of organizational authority from shareholders to competent employees may be a constructive step in handling the new corporation's complexities. Getting leverage empowers executives to optimize

corporate revenues. Insider-dominated boards are preferred by the stewardship paradigm for their breadth of experience, access to current operational statistics, technological skills and loyalty to the firm. The principle of stewardship predicts that when the corporate structure enables successful regulation by management, shareholders should expect to increase their returns.

While the Agency's ideology implies that principals and agents have divergent motivations and that agents are fundamentally self-serving and self-centered, a diametrically opposite perspective is maintained in the stewardship paradigm. It ensures that the agents are essentially trustworthy and good appointed capital managers (directors and managers), which makes oversight obsolete (Donaldson 1990; Donaldson & Davis, 1991; Donaldson & Davis, 1994; Davis *et al.*, 1997). Donaldson and Davis (1991, p. 51) observed that "the owners of organizational positions are driven by the imperative of participating, of obtaining inherent fulfillment in the successful implementation, of exercising obligation and authority and of thereby receiving appreciation from colleagues. Directors are expected to increase the equity of owners as trustees. Davis, *et al.*, (1997) posit how stewards achieve more utility than behavior that suits themselves by achieving organizational objectives.

Davis, *et al* (1997) suggests that the pursuit of corporate achievement often meets the stewards' personal needs. The philosophy of stewardship suggests that managers should be granted confidence-based authority, which minimizes the expense of managers and directors observing and managing actions. There is a "fusion of individual ego and the company" as managers have represented a company for a significant amount of time (Donaldson & Davis, 1991, p. 51). The management theory argues that the management actions also have non-financial implications, such as the need to obtain and value them,

the intrinsic pursuit of positive outcomes and respect for integrity and work ethics. Those theories have been well known throughout the corporate literature in academics like Argyris (1964), Herzberg (1966), McClelland (1961), Muth and Donaldson (1998). Davis, *et al.* (1997) claim the managing partner of the organization and lead to the customization of the company success or failure. As a result, managers control the organization to optimize financial results and consumer returns, since the company's output has significant implications for the individual view and efficiency of managers. Fama, (1980) points to the profitability of administrators working as business managers in handling their own professions. In favor of this opinion, the company's management, Shleifer and Vishny (1997), created an optimistic picture that allows them, whether they have reasonable financial returns, to reinstate capital exchanges for potential business needs. Superior management efficiency was due to the fact that there was a plurality within the board (executive directors, as the internal managers knew the company better and were better prepared to rule than 27 external managers) (Donaldson, 1990; Donaldson & Davis, 1991).

The management theory notes that the successful impact of experienced managers helps them to maximize company success and business benefit. Accordingly, the insider's boards have access to the new operating information, technical skills and market satisfaction for their vast experience. Consequently, for their breadth of experience, access to latest operational statistics, technological competence and loyalty to the business, insider-dominated boards are preferred. Similarly, the duality of the CEO (i.e. the same person holding the position of chairman and chief executive) is regarded favorably because, thanks to consistent and coherent leadership, it contributes to better company performance (Donaldson & Davis, 1991; Davis, *et al.*, 1997). Various studies strengthen the case that insider managers with a broader variety of perspectives take

superior decisions (Baysinger&Hoskisson, 1990; Baysinger, Kosnick& Turk, 1991 and Boyd, 1994). The forecasts of agency and stewardship theory have been contrasted by Muth and Donaldson, (1998) and the help of management theory has become a simple model of truth. Bhagat and Black, (1999) reported that businesses with a higher number of external directors serving philosophy of agencies are worse off than companies with boards of directors with less external managers. As such, both conceptually (e.g., Davis *et al.*, 1997) and even empirically, there is some consensus for the stewardship viewpoint (Bhagat & Black, 1999).

Instead of the entirely self-interested rational economic philosophy of the Organization, the stewardship paradigm is one focused on manager as 'steward' argues that shareholders have lost control of corporate Agency ideology, with origins in the field of economics and finance, explores capitalism's mechanisms, discovers just self-interested actions and believes 'this is human nature and neglects the tremendous amount This include the desire for achievement and appreciation, inherent good performance satisfaction, respect for authority, and job ethics.

In organizational literature, certain ideas are well supported (Argyris 1964; Herzberg 1966; McClelland,1961). They are simply good corporate asset stewards, faithful to the organization. The philosophy of stewardship holds that a manager should obey on the basis of a sense of responsibility and association with the company when faced with a course of action perceived as individually unrewarding (Etzioni,1975).

The justification for arguing that target conflict should not be implicit in the division of ownership from management is the belief that managers have a wide variety of motivations and actions beyond self interest. In order to enhance organizational efficiency or protect shareholder interests, blanket restrictions extended to all managers

may not be the solution. The philosophy of stewardship suggests that the reallocation of organizational authority from shareholders to competent employees may be a constructive step in handling the new corporation's complexities. Having leverage helps administrators to maximize corporate profits. Insider-dominated boards are preferred by the stewardship paradigm for their breadth of experience, access to current operational statistics, technological skills and loyalty to the firm. The principle of stewardship predicts that shareholders should continue to optimize their gains as management promotes successful regulation.

2.4.2 Pecking Order

The data and transaction costs overpower the forces that determine optimum leverage in the trade-off models, according to Myers,(1984). Funding emerges from three outlets, according to Pecking order theory, which are: existing financing; new equity and debt. Myers, (2001) postulated that companies set their funding goals, initially through the use of internal financing, then through leverage and eventually through new equity.

The businesses will first use preserved profits as this will avoid the expense of floatation, also discourage the deep exposure of details to the public, because when selling new shares, management do not want to surrender ownership of the company to new investors.

The organization would then use debt capital if a need for additional funds occurs. But according to this principle, as the capital streams are only ranked in the order above, there is no ideal debt-equity combination. Good high-profit firms will use however much internal funding as they can, but low-profit companies may not have as much sales and retained profits, they would not be able to opt for loans using internal

financing, which helps to explain the mystery of the negative connection between debt and profitability (Miglo, 2014).

The premise is crucial to the study in that it establishes that the board's experience will decide the pecking order of the business that will impact the financial performance of the company in return. Their choices would have an effect on the financial health of the business and the financial performance of the company in return.

2.4.3 Liquidity Preference Model

Keynes, (1935) believed there were three motives to holding money; transactions motive, precautionary motive, and speculative motive. Under the speculative motive, money demand was negatively related to the interest rate consequently leverage. Holding money was one way of guarding against uncertainty. Hence, liquidity preference framework determines the equilibrium interest rate in terms of supply and demand for money.

The model was developed by Keynes,(1936) based on several assumptions. First, money pays no interest. Second, that there were only two kinds of assets for storing wealth: money and bonds.

The current study was anchored on liquidity theory, given its emphasis on Liquidity, and the other variables under study; leverage, efficiency and capital adequacy. The theory notes clearly that liquidity alone does not guarantee success. Financial institutions in Kenya such as Daima Bank, Trade Finance, Allied credit ltd, International Finance ltd, Nairobi Finance ltd, Inter Africa Credit and Finance ltd and Dubai Bank that collapsed and liquidated while imperial Bank was put under receivership and chase was under statutory management for a short while as at 31st

December 2015. These institutions' liquidity was high in the year when their businesses went into liquidation or when they went into statutory management.

The theory through its concept of holding money as a precautionary motive explains the importance of capital adequacy and liquidity requirement of ensuring that any future financial distress is properly managed. In addition Modigliani, (2011) defined liquidity as an asset in terms of the perfection of the market in which it is traded. An asset is liquid if a market is perfect thus an individual decision to buy or sell does not affect the price finitely since it is illiquid in the opposite case, it is riskless if the price at which it sells is constant or practically so and its risky if the price fluctuates widely (Modigliani, 2011). This theory therefore indicates that liquidity, capital expenditure, leverage and efficiency of the firm's liquidity are the key financial flexibility factors that may influence financial performance.

2.4.4 Trade off theory

Modigliani and Miller, (1963) argued that the tax code favors debt over equity finance by enabling the corporation's interest costs to be deducted from gross incomes for purposes of corporate tax and excluding the deductibility of shareholders' dividends (e.g., dividends are not tax deductible on the personal account). As a result of the marginal value of a tax deductible, an excess dollar of debt is generated without offsetting expenses, the corporate gain of these situations is maximized by the use of the leverage that is required to fund company expenditure decisions. Other financial economists, such as (Kraus & Litzenberger, 1973), indicated that the expense of financial distress could be reconciled with the forecasts of the tax-adjusted Modigliani-Miller financial policy analysis of the found limits on the use of debt. An increase in the overall bondholder tax rate decreases the optimum capital system leverage (Eckbo,

2008). Although uncertainty is typically thought to be spreading, the risk impact is uncertain. Eckbo,(2008) has argued that the debt-to-volatility ratio is generally negative.

The intuition given for the nature of the finite, ideal structure of capital is simple. Debt capacity is insufficient since the tax benefits created by the deductibility of interest payments are traded by companies against the estimated amount of costs sustained in the event of bankruptcy (Kraus &Litzenberger, 1973).Senbet (2012) indicated that a substantial difference between the corner outcome of the Modigliani-Miller tax-adjusted model and the reported limits on the amount of debt funding used in practice was filled if corporate bankruptcy was expensive (Senbet,*et al.*, 2012). The trade-off principle asserts that, due to tax advantages associated with the use of loans, equity has potential benefits for the business.

However other studies have demonstrated that the uncertainty in share prices rises with respect to private knowledge with higher leverage; the overall fate of the company rests on problems unknown to the general public (Nyamboga, Omwario&Muriuki, 2014).

The principle is important to the analysis because debt and equity are viewed in the company as a capital holding that can be used by management to boost the company's financial performance. Debt can be the management's most preferred capital holding, since it produces more cash flows with only interest being taken out after expenses, but equity, on the other hand, may avoid holding cash until all earnings are paid as dividends to the owners. The principle of trade off in terms of financial stability also promotes the use of leverage to increase a company's financial flexibility.

2.4.5 Resource Dependency Theory

The theory of resource dependency (RDT) is the study of how organizations' external resources influence the organization's actions. The principle was advanced by (Pfeffer and Salancik 1978). Pfeffer (1978) argues that boards help businesses to reduce or benefit capital from dependency. Previous literature analyzes by the board indicated that RDT was more generally acceptable than other Board views, including the agencies' standards (e.g. Johnson *et al.*, 1996; Zahra & Pearce, 1989). Although RDT is less widely used than the agency theory to study board, evidence suggest that it gives more successive lens in understanding boards . An early review of RDT to assess Boards relies on the size and structure of the Board as a measure of the Board's willingness to provide the organization with essential capital. Pfeffer (1972) also found that the board composition suits the environmental standards of the organization.

A higher percentage of outsider managements is required for those of greater interdependence. He concludes that 'the Board is not a random or autonomous component, but a rationality of organisation,' and supports that claim in a replication analysis. (Pfeffer, 1972) (Pfeffer, 1973).

Sanders and Carpenter (1998) recently endorsed this, when they considered the size of the board to be connected to an internationalization level of an organization, the last of which suggests environmental dependency. The connection between board size and business effectiveness as a test of a strong resource dependency policy is often addressed in several studies. This meta-analysis is compiled by Dalton, standard, Johnson and Ellstrand (1999) and shows a strong correlation between the Board size and the company's market results. However, some scientists wish to challenge the simplicity of the board's scale and propose a more nuanced interpretation. Pearce and

Zahra (1992), for instance, recommend that board structure and size not only depend on an external context but also on current policy and the past financial success of the company.

Scholars have also followed the example of Pfeffer (1972) on the composition of the board and the need to balance the services supplied by the board with the organization's needs. Boyd (1990) indicates that board size may be a challenge in certain environmental contexts, while board interlocks (the amount of other directorships occupied by each director) are an asset, implying that the target of board representation could be "resource-rich" directors. Consequently, not only the number, but the form of directors on the board are significant.

In the sense of input and guidance, access to communication networks, Pfeffer and Salancik (1978) propose that directors add four advantages of corporate information between market and environmental contingencies, privileged access to services, and reputation. Important empirical evidence supports these potential benefits, both narrowly and specifically.

Provan (1980) found that businesses capable of hiring and co-opting powerful members of the community on their boards are capable of obtaining critical capital for the environment. More precisely, Pfeffer and Salancik (1978) conclude that more outsiders, particularly those with particular experience, might be needed by businesses in controlled industries. Luoma and Goodstein (1999) assert this, noting that companies have a higher proportion of stakeholder directors in closely controlled markets, whereas Johnson and Greening (1999) find that stakeholder directors are more likely to increase the social efficiency of organisations. The relation between the company's need for

financial resources and the participation on its boards of financial institutions is empirically verified by (Mizruchi and Stearns, 1988, 1994).

Kor and Misangyi, (2008), who find a detrimental association between the combined degrees of company experience of top management and the board, also see support for these advantages in recent work. This indicates that with critical guidance and counsel, the board complements upper management. By forecasting the probability of board appointments of ex-politicians who differentiate between their human and social capital, as well as how recent their government experience is, Lester, Hillman, Zardkoohi, and Cannella, (2008) often reflect on different kinds of director instruments.

Others discover that businesses with particular ways of climate dependence are more likely to have female directors (Hillman, Shropshire, & Cannella, 2007). The resource reliance suggests the need to set up a solid transition board in the event that the market environment changes in relation to this review, for example, in the financial results of companies listed given the role resources of the board plays in affecting operations of a company and external environment.

The theory shows that, through a variety of tests, resource-rich outside directors are likely to have a major influence on corporate success, whereas resource-poor outside directors do not, indicating that efficiency declines when the composition of the board is not altered to satisfy current environmental demands. Hillman, Cannella, and Paetzold, (2000) created a taxonomy of directors focused on the advantages of RDT offered by directors, discussing how particular classes of directors can be more or less relevant as environments change (e.g., deregulation). They say that managers, according to the different types of services they carry to a team, should be identified as "business experts," "support specialists," and "influential community," Kroll, Walters,

and Le, (2007) use the taxonomy of Hillman and associates, finding that young post-initial public offering (IPO) companies benefit from unique classes of managers. Jones, Makri, and Gomez-Mejia, (2008) state that family businesses frequently benefit from particular classes of directors over others in search of diversification. Research has now advanced to define particular classes of directors who address the clear environmental needs met by organisations.

Another stream of RDT analysis reflects on the times/types of organisations that would most likely benefit from the provision of board service.

Part of this analysis considers the life cycle stages of a company in which the services of directors are most important. Zahra and Pearce (1989) first proposed the notion that during the early stages of the life cycle, as suggested by Lynall, Golden, and Hillman (2003) and Gabrielsson (2007), the sense of resource reliance function of boards can be influenced by the extent of the firm life cycle.

This is affirmed empirically by Daily and Dalton (1993), indicating a clear association between such board characteristics (e.g. board size and composition) and small business performance. Others find that the control role could be less critical because of its lack of vital resources for small companies (Fiegenger, Brown, Dreux, & Dennis, 2000; Finkle, 1998), suggesting that providing assistance is more important. Similarly, 1410 *Journal of Management* 35(6) Daily, McDougall, Covin, and Dalton (2002) note that, compared to other theoretical viewpoints, RDT reasoning is more consistent in entrepreneurial companies: "In the entrepreneurial firm, the role of resource dependence may be even more critical than for larger, mature firms" (Daily et al., 2002: 403).

Although Certo,(2003) focuses its work on the signaling theory, RDT is also validated by its observations that prestigious boards can improve organizational credibility and subsequent IPO effectiveness."Similarly, Certo, Daily, and Dalton (2001: 44) found that the size of the board is substantially linked to the result of the IPO, indicating that "potential investors may see larger boards as a sign of improved access to capital." In the study of corporate collapse and bankruptcy, the RDT point of view on boards has also been important (Daily, 1996; Daily & Dalton, 1994, 1998).

This study indicates that the role of managers as resource providers may be increasingly important during crisis and bankruptcy, as troubled businesses often face a decrease in their relative resource bases (Cameron, Kim, & Whetten, 1987).

Daily (1995) finds that companies with a higher number of external executives were more likely to re-emerge from bankruptcy successfully in terms of RDT. Similarly, Arthaud-Day, Certo, Dalton, and Dalton (2006) say that director turnover can be a significant step towards restoring credibility and re-establishing fractured relationships with the environment during reputational crises such as financial restorations. The research on the relationship between boards of directors and deteriorating organisations, as Daily and Dalton (1998: 248) demonstrate, offer a much clearer understanding of the effect of board configuration and management structure than is seen in the general literature on the relationship between these two aspects of governance and company efficiency.

Thus, observational evidence confirms RDT, both early in the life cycle and in periods of regression. In addition to promoting the particular advantages of matching the board's structure with external demands, Daily and Schwenk (1996) indicated that RDT was a key determinant of the composition of the board. While RDT-focused board studies

reflect a powerful study stream, implementations of agency theory, as mentioned earlier, have dwarfed it. However, the increasing research data in favor of the RDT and the boards bodes well for the RDT stream's potential well-being. In their Corporate Governance Science report. Daily, Dalton, and Cannella (2003: 275) address the minimal findings obtained from the viewpoint of an organizational theory and propose that prospective research scientists could produce more effective results by focusing on helping directors to add benefit instead of concentrating exclusively on the desire or skill of directors to track executives. In addition, RDT will undergo a structural resurgence in boards, as in the areas of mergers and inter-organizational partnerships, by emphasizing on the role of managers in service procurement.

This latest trend addresses independent leadership as capital suppliers, not just the board as a whole (Kaplan & Harrison, 1993). Although previous board reviews (Johnson et al., 1996; Zahra & Pearce, 1989) present director positions relevant to the principles of RDT, Hillman Hillman et al. 1411 and Dalziel (2003) recommend only two board tasks: (a) supervision from the point of view of agency philosophy and (b) RDT's provision of services. They agree that both oversight and resource provision would affect the quantity of board services (sum of human and social capital directors) along with rewards. Westphal and colleagues (Carpenter & Westphal, 2001; Westphal, 1999) are finding empirical evidence to support this difference between control functions and service availability (i.e., guidance and counsel).

Lester et al. (2008)'s ex-study politician's of directorships differentiates between the depth, scope and degradation of the human and social capital of persons linked to boards and the availability of services. They find funding more valuable to businesses than others for specific forms of individual human and social capital, indicating potential in

possible efforts to determine the availability of services to directors. Similarly, some concentrate on the encouragement of management to work in the boardroom. Hillman, Nicholson, and Shropshire (2008) model the impact of the multiple identities of directors on the provision of facilities to recognize that a director can have feedback and advise, use their external connections, etc.

In addition, while research has centered extensively on the relationship between interdependencies and organizational relationships, Westphal, Boivie, and Chng (2006) are investigating the influence of strategic dependencies on informal executive interactions. These scholars found that the possibility of CEOs reconstituting friendship relationships with top executives of other firms, unwittingly compromised when any executive exits their primary sector, has been hampered by different causes of strategic dependency. When other resource-rich providers (e.g. buyers/suppliers, finance institutions, and competitors) revive relationships with other administrators, CEOs are more likely to restore partnerships with other executives under high levels of strategic uncertainty) are represented. This report provides initial proof of how informal collaborations can be dynamically used by executives to handle resource dependencies. In conclusion, the largest use of RDT has been seen over the last 30 years of the board of directors' study.

Once again, the claims of Pfeffer and Salancik (1978) that boards should resolve environmental dependencies and satisfy environmental needs are well supported. All has earned strong advice from the four benefits managers may bring to businesses: advice and expertise, knowledge flow systems, preferential access to resources, and reputation. The dynamic design of boards tends to be an almost normative convention (i.e. increasing configuration as environmental needs change), although this has

received little empirical testing. However, like the other areas, scholars still call for a multitheoretic view of boards, particularly one including agency theory. A richer understanding of the specific resources individual directors bring to a board, as well as their motivations to contribute to them, is also needed.

2.5 Empirical Review

This section provides an empirical review of the past empirical studies conducted on the variables under study including the firm liquidity, the firm leverage, the financial flexibility of listed companies and the board capital. Financial flexibility is a degree of firm capacity that can mobilize financial resources in reactive activities to optimize the profit of the organization. Financial flexibility lets market units take advantage of unforeseen opportunities that can sustain their activity and prosper during the time where operating cash flows are down and likely to be negative and an unexpected decrease in demand for industrial products can be the trigger. The willingness of organizations to provide finance services to respond quickly to opportunities and unexpected events and to maximize the value of firms is financial stability (Bassiouny, 2016).

Financial flexibility is described in the theoretical principles of auditing standards as the willingness of the organization to adjust the volume and timing of cash flows depending on successful activities, so the business unit will be able to adapt to unpredictable events and opportunities (Ramiah, Zhao, Moosa, & Graham, 2016). Financially flexible business are able to resist financial stresses and in addition, they can provide minimum-cost investment funds in the event of profitable opportunities. In the other hand, investors often consider the degree of risk to their

investment on the basis of the details found in the financial statements and on the basis of market conditions and, owing to this risk, they derive the respective return.

Naturally, if a business generates smaller returns than the desired return of investors, it would face difficulties in attracting the required capital. In the other hand, customers would be able to spend more in the company if the company obtains higher rate of gain (abnormal return) (Bassiouny, 2016).

2.5.1 Firm Liquidity and Financial Performance

Keynes (1936), Jensen and Meckling (1976), Myers (1984), Jensen (1986), and Myers and Majluf (1986), for instance, have addressed the possible risks and advantages of retaining cash over time . Keynes' point is that by retaining a liquid balance sheet, a company that experiences incremental costs while entering global capital markets will maximize its value. In an effort to generalize this argument, Almeida et al. (2011) indicate that any decision influencing a company's ability to finance its programs would be influenced over time by the allocation of financing demand and costs, as the discussion of Keynes concentrated exclusively on corporate cash policies.

To analyze the effect of liquidity on financial results, other hypotheses have also been established. High liquidity is generally interpreted as a symbol of financial power, according to Chandra, (2001), but high liquidity can be as undesirable as poor, according to other writers like Neto,(2003). This is due to the fact that the least active are usually existing assets. This suggests that the capital invested in existing assets yields lower returns than fixed assets, representing the cost of opportunity. Moreover, the amounts used by current properties raise additional operating costs, thus reducing the viability of the company. However, Arnold, (2008) points out that cash reserves often provide some benefits, such as the availability of refunds for daily costs, such as

housing, utilities and taxes, since potential cash flows are unpredictable, the retention of cash offers a safety margin for possible downturns and, essentially, the storage of cash preserves extremely lucrative assets that demand immediate payment. It is also an important activity for the financial officer to find the correct balance between the company's adequate liquidity and a fair return.

The liquidity level measurement should then be based on the maximum level of liquidity, according to Perobeli, Pereira and David, (2007). The importance of liquidity to the success of the business could lead to the inference that it determines the level of profitability of the sector. This topic was the subject of a number of theoretical and empirical studies carried out, among others (Smith, 1980; Shin and Soenen, 1988; Deloof, 2003; Eljelly, 2004; Lazaridis and Tryfonidis, 2006; Padachi, 2006; Gill, Bigger and Mathur, 2010; Attari and Raza, 2012; Banos-Caballero, Garcia- Teruel and Martinez-Solano, 2012; Owolabi and Obida, 2012). It can also be remembered that while a number of experiments have been done, the nature of the liquidity effect on profitability is still not well known. Liquidity is the secret of business life. Specifically, it involves the decrease or increase in financial expenses, the change of the sales dynamics and the extent of corporate risk.

Asset investment decisions do not interfere with the company's main purpose of optimizing shareholder wealth. The assessment of an optimum level of liquidity is a very important aspect of this asset management. Liquidity refers to the willingness of a company to satisfy its short-term commitments and to play a critical role in its successful activity as a productive business. Liquidity and performance metrics are also of major significance to both owners and prospective customers. Theoretically, liquidity and profitability goals are usually perceived to be opposite to each other.

Liquidity management should aim to allow a company to increase its net sales while covering all short-term debt and future operating costs, that is retaining liquidity (Panigrahi, 2014).

In order to accomplish this aim, the company should, on the other hand, eliminate the possibility of failure to fulfill its short-term commitments and, on the other hand, avoid unnecessary spending in current assets (Eljelly, 2012). Excessive liquidity investments may cause managers to make investments to increase their own profitability, to the detriment of profitability. Of such situations, a further pitfall is the propensity of administrators to invest in projects with unfavorable net current values (Adams & Buckle, 2013). From this angle, the trade-off between liquidity and resilience has been an important area of research in corporate finance. In particular, this trade-off could be much more applicable to retail firms, since it may be assumed that the financial characteristics of industrial businesses may vary considerably. Retail firms tend to have higher liquidity and turnover rates, decreased profitability of revenue and lower capital transfer rates compared to manufacturing companies and to working hours.

Supermarket companies, on the other hand, have different financial percentages of proportionally more existing assets and proportionally fewer fixed assets (Gombola & Ketz, 2011). As mentioned earlier, while it is clear that the trade-off between liquidity and profitability has been widely explored in the literature, the number of analytical studies exploring this trade-off in the retail (or corporate) sector is very small. When some of the metrics used to measure liquidity (such as liquidity ratios and length of cash turnover) are derived from working capital components, liquidity control is often measured from the point of view of working capital management. It is therefore important to review the literature on the impact of liquidity

on profitability from two points of view. In contrast, retail companies have distinct financial ratios of proportionally more existing assets and proportionally less capital assets (Gombola&Ketzer, 2011). As stated earlier, while it is clear that the trade-off between liquidity and profitability has been thoroughly discussed in the literature, the number of empirical studies in the retail sector (or companies) investigating this trade-off is very limited. If all of the metrics used to measure liquidity (such as liquidity levels and length of cash turnover) are derived from the components of working capital, liquidity management is also calculated from the point of view of the management of working capital. It is also important to study the literature on the effect of liquidity on profitability from two viewpoints. Lyroudi et al. (2014) on the London Stock Exchange, Narware, (2012) on the fertiliser industry in India and Saldanlı,(2012) on the Turkish manufacturing companies show that liquidity has a statistically negative impact on profitability in terms of the current ratio. While the hypothesis is confirmed by such knowledge, there are also several observational findings which refute the theory.

According to Ghosh and Maji,(2013) studies on the cement and tea sectors of India, Muhammad et al (2012) on Pakistan's textile industry, Ehiedu, (2014) on the manufacture companies listed on the Nigerian bourses, and Rehman,*et al.* (2015) of companies listed on the Saudi Bourse, liquidity has a statistically positive impact on profitability with respect to the current ratio. However, Afeef, (2011) on the Karachi Stock Exchange of selected multinational firms in studies carried out by Singh and Pandey(2016) on Hindalco Industries Limited, Sur and Chakraborty, (2011) on selected foreign firms listed on the Karachi Pharmaceutical Market, Alavinasab and Davoudi (2013) on the Tehran Stock Exchange, and Afonina and Chalupsky, (2014) on high-tech companies listed on the Karachi Pharmaceutical Industry,

The acid test ratio is the ratio of all the most stable net assets to current liabilities as a more conservative liquidity indicator. Only current assets are considered to be easily converted into money, such as currencies, cash balances, short-term marketable securities and accounts receivable, minus inventories, stocks and postponed investments. Although Lyrouti *et al.* (2014) have shown that the acid-test ratio liquidity has a statistically negative impact on profitability, studies on the Singh and Pandey Indian cement industry (2016) and Bhayani (2018) have shown opposite effects. In addition, Afonina and Chalupsky (2014), Ehiedu (2014) and Rehman *et al.* (2015) point out that the variables listed have no statistically significant relationship. Of all liquidity metrics, the capital proportion is the most conservative, ignoring inventories and accounts receivable in overall current assets.

However, this ratio is also used in quantitative research on the competitiveness of the financial services industry. According to studies by MederÇakır and Küçükkaplan (2016) on manufacturing firms listed in Borsa, the cash ratio has a negative impact on profitability. Stanbul and Niresh, (2012) on selected development firms in Sri Lanka. In contrast, the results of the Sinku, (2013) report on the steel industry in India suggest a promising relationship between cash and profitability. Moreover, Khaldun and Muda, (2014) demonstrate that there is no significant association between the cash ratio and profitability. The other metric used to measure liquidity control in some experiments is the Currency Exchange Period (CCC), also known as the Cash-to-Cash Interval.

Variation of three cash flow metrics is an aggregate indicator of growth-induced liquidity risk: revenue days outstanding, inventory days outstanding, and payable days outstanding, respectively (Kroes&Manikas, 2014). The Currency Exchange Period (CCC) shall be measured as the amount minus the last of the first two metrics and shall

reflect the period of time available for translating cash expenditure on suppliers to cash refunds on the part of the buyer for the products or services supplied.

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Eljelly, (2012) analyzed the relationship between profitability and liquidity empirically, calculated by the current ratio and cash differential in a survey of 929 joint stock firms in Saudi Arabia. Using a correlation and regression analysis, he observed that there is a strong negative association between the degree of business profitability and liquidity as calculated by the current ratio. This relationship is more pronounced for firms with high current rates and lengthy cash-exchange cycles.

At market level, however, it was observed that the resource turnover cycle or the cash deficit was of greater value than the current profitability-affected ratio as a metric of liquidity. For a number of selected companies in Nigeria, Ehiedu, (2014) conducted a report on the profitability effect of liquidity and concluded that the current ratio has a strong positive profitability correlation. The investigator concluded that the reason for

this positive relationship between the current ratio and profitability is simply that idle funds produce benefit and lower business costs, especially when idle. Two companies showed a negative association between the acid test ratio and the return on investment. Out of the findings, 50% of the organizations surveyed found a strong negative link between the current ratio and the acid test ratio. There was therefore, no definite link between the current ratio and profitability in the study.

Vieira,(2018)studied the relationship between liquidity and profitability in 48 organisations made up of the world's leading airlines between 2015 and 2016. The partnership was analyzed using the financial data released by the firms using mathematical techniques. For all the years analyzed in the short term, a strong and optimistic association between liquidity and profitability variables was found. The analysis also found that the higher the liquidity ratio of the company, the higher its productivity in the short term. A beneficial mid-to long-term relationship has also been developed between liquidity indicators and profitability indicators.Nevertheless the study has been conducted for just 3 years and the airlines fly in Europe, America and Asia. The African carriers mentioned were not incorporated into the study.

Obida and Owolabi,(2012), whose outcomes of the study were based on a descriptive review and the results indicate that liquidity management, measured in terms of credit policy, cash balance management and cash transfer times, has a substantial impact. The research was undertaken by Obida and Owolabi, (2012). A descriptive research on the impact of liquidity on financial results on agricultural companies was performed in their Tianwei& Paul,(2015) study and 50 firms were investigated. Borrowers in these companies are working to strengthen their credit risk management. External management is concerned with the financial consequences of alternative political

behavior. The scope and distribution of alternative technologies have also been tested by decision-makers for future financial successes of agricultural companies. The data were analyzed using the Z ranking model and applied to agricultural accounting data to classify operational and financial problems in agriculture. The findings of this study have shown that credit risk control has substantially improved the financial efficiency of farmers.

For the 2015-2018 period, Maina, (2011) studied a liquidity-profit relationship between Kenyan oil companies. Additional figures were used in the analysis gathered from the company's financial statements. A regression model was developed to determine the relationship between the dependent variable (business profitability) and the independent variables (liquidity position). Analyzes have demonstrated that liquidity control alone does not make a major contribution to the sustainability of the company and that another aspect affects ROA. However, the influence of each liquidity element on its viability must be considered by the company and deliberate steps must be taken to maximize its level of liquidity.

Kimondo(2014) investigated the liquidity-profit relationship of NSE-listed non-financial corporations. The study adopted a detailed methodology approach that helps researchers to explain how values or metrics are consistent among different statistics. The study included 39 NSE Kenya non-financial institutions. The study centered in five years between 2016 and 2013 on the specifics of the audited annual accounts of the register of non-financial institutions. Correlation and regression analysis are used to determine the relationship between liquidity and profitability. The ROA was used as a metric of business durability and the liquidity of the firm was determined by the current

ratio, the quick ratio and the total cash. The results revealed a very poor positive association between liquidity and profitability in Kenya for non-financial firms.

Sanghani (2014) analyzed the impact of liquidity on the financial performance of non-financial listed firms on the Nairobi Securities Exchange (NSE). In the data processing, secondary NSE data and multiple regression analyzes were obtained. The study found that liquidity had a favorable impact on the financial performance of NSE non-financial companies. The study showed that the current ratio had a positive effect on financial performance and had a positive impact on the financial performance of non-financial firms listed in the NSE. The study indicated that non-financial companies listed under the NSE must raise their reserves in order to increase liquidity as seen by an increase in the current ratio that the financial outcome is advantageous.

Liquidity and viability liability was studied by Akhwale, (2014) of NSE firms. This research has been carried out by means of a diagnostic test design. Secondary data were obtained over a period of 5 years from the financial statements of the companies listed in Kenya (2016-2013). The study showed that over the five-year period, the length of the cash transfer and the existing liquidity ratio had a negative impact on NSE's business profitability, although the accelerated liquidity ratio did not have a major impact on the profitability of NSE-listed firms over the five-year period. The study concluded that the liquidity and profitability of the companies listed in Kenya are closely interlinked. The study recommended that the management of NSE-listed companies should follow efficient cash management strategies to reduce conversion time. In addition, the study proposed that NSE-listed company management should strive to achieve and retain an optimum liquidity position that holds ample cash/capital resources for operational needs while investing surplus liquid resources in existing viable projects.

Mwangi, (2014) examined the cash and financial performance of micro-financial deposit-taking institutions in Kenya from 2016 to 2013. Data is derived from the released internal audit reports of the Department, the AMFI and the annual supervisory reports of CBK banks for the following five years. Inferential statistics were used in this research to quantitatively classify the primary features of data processing, analyze data using correlation and linear regression analysis. Financial output was based on asset gains and cash and cash equivalents were measured using the liquidity of DTMFIs divided by gross average assets. These findings suggest that liquidity and financial performance are optimistic, as the coefficient of measurement was described as 0.910, which explains that 91% of financial performance is unknown is explained by liquidity. The partnership suggests that there was a strong 5 per cent contact with 941. The study concluded that attempts to increase MFI liquidity would result in improved financial output for the microfinance industry, which would lead to an improvement in the operating efficiency of the sector. The proposals included steps to improve the efficiency of the MFIs to be implemented, the focus on developing assets as a boost to financial results and competition, and the enhancement of corporate sustainability through the use of new technologies and innovative market strategies.

Academic studies have demonstrated that liquidity plays an important role in the growth of financial institutions. Empirical research shows contradictory findings, mainly because experiments are done in a number of markets and industries. International study in numerous countries, including developed economies and developing markets, is subject to diverse industrial environments and stability. It is therefore not necessary to extend the findings to the evolving condition of the Kenyan economy. Empirical experiments also display conflicting results, with some suggesting negative relationships and some showing positive or negative relationships. In addition to the

inconsistencies in previous reports, the researchers acknowledged the need to examine the liquidity impacts on the financial performance of NSE financial institutions. In this case, the evidence covered five years from 2018 to 2014 that allowed the researchers to analyze dynamic dimensions of the evolving impact of information on liquidity.

The vital importance of liquidity ensures that it is necessary for the growth of companies and at the same time, is one of the fundamental endogenous factors responsible for the business market position. A research by Garcia-Teruel & Martinez-Solano (2007) also found the value of efficient inventory control in the management of working capital. They analyzed the impact on the viability of Spanish SMEs on the management of working capital and concluded that by reducing inventories and the amount of day accounts outstanding, additional value can be generated. Shortening the duration of cash transfer can also be a way of improving the sustainability of the business. This study calculated liquidity by using total assets to total liabilities ratio and fast assets to total deposits ratio, where total assets to total liabilities ratio are the most liquid assets scaled by total liabilities, if a business runs short of cash and is unable to access funding, it would struggle to secure financing (Renato, 2010).

The influence of working capital management on the viability of manufacturing companies in Kenya was analyzed by Ndirangu, (2013), with liquidity being one of the variables under analysis. The study tried to assess whether liquidity management activities had an impact on the viability of Kenya's manufacturing companies. In the study with a target population of 413 manufacturing firms in the industrial region of Nairobi and its surroundings, Ndirangu, (2013) used both primary data through a questionnaire and secondary data. Ndirangu, (2013) concluded that liquidity and other considerations have a substantial production impact and can be used for profitability

prediction. The study established liquidity as a financial performance improvement factor for manufacturing companies in Kenya and not liquidity as a financial flexibility factor for the listed companies.

Related liquidity studies examine the effects on cash flows required for sustained liquidity at a cost-effective basis, including Kim *et al.* (1998) and Opler *et al.* (1998) (a) (1999). The subject of recent articles has been on the impacts of corporate governance on corporate cash assets at national as well as corporate level (Dittmar *et al.* (2003), Pinkowitz *et al.* (2006), Dittmar and Mahrt-Smith, (2007), Harford *et al.* (2008). These studies fail to quantify appropriate level which firm liquidity should be maintained in firm listed in NSE to enhance financial performances which this study has since addressed.

2.5.2 Firm Leverage and Financial Performance

Firm Leverage can be defined as the use of borrowed capital to make an investment and make a return on that investment, according to the Smith, (2002) . For an enterprise to have a high ratio of financial debt is more dangerous. The ratio of total liabilities to total assets can be described as stock debt. This is an option for the residual statements of the holders of shares. However, stock leverage may not be a reasonable forecast for the short-term identification of the company's default risk (Rajan;Zngales, 2013). In such a way earning are independently and identically distributed that the multi-period earning and leverage relationship can be examine. Barnea, Haugen and Talmo, (2012). As Raymar, (2012) found that leverage grows with the ration of operating profits to value, acceptable income leads to the lack of tax benefits in their study.According to Barnea, Haugen and Talm, (2012), the risk to leverage relationship depends on economic price variables, while Raymar,(2012) found that the optimal leverage is

usually reduced by business risk. Diminished future usage implies smaller debt terminal firm value (Haugen; Senbet, 2014). It further clarifies that default is used as a leverage barrier to the model, and defaults are used exclusively by way of its depreciated measure, the sensitivity of the company's earning being the secret to deciding the optimal debt. A stable corporation with a high risk of earnings (low exposure to business income) can also be heavily leveraged.

If earning is heterogeneous (with as expressed or in a general sense by the sensitivity of the earnings of the company). The relationship between an organization's business risk and its use of leverage does not adequately represent clear indices of fluctuating earnings. The free cash flow metrics listed in this literature are low level of financial leverage, inadequate investment capacity, significant and stable cash flows and a high degree of diversification (Jenson, 2016). While the view of Gibbs, (2013), is that the investment capacity and initial financial leverage are not associated. Management has incentives to minimize the company's liquidation risks.

Furthermore, management would have the privilege of avoiding disciplinary actions from the capital market by financing retained earning for unprofitable companies internally. It also results in a decrease in the leverage. We should then conclude that such management decisions can reduce the burden by reducing debt and thereby maximizing revenue. Furthermore the author states that the management is safe and willing to refuse to take over the leadership of the Board.

Decreasing values of leverage and investment opportunity are expected to increase likelihood of the capital structure reforms due to take over threat. The ultimate findings of the author reveal that the degree of operating leverage(Mandelker and Rhee, 2014) also determines the capital structure mix, as firm then exposed to industry influence at

some scale and those having higher degree of operating leverage may have less debt percentage and vice versa.

In an empirical study (Hatfield, Cheng, Davidson, 2013) of high debt and low debt firms belonging from the same industry, the results shown that in opposition of the perception of market decision of granting finances by comparing firm's leverage ratio with the industry average has been proved to reverse case. Ferri; Jones, (2012) has observed the relationship between leverage and size of the firm as it is a general perception that the likelihood of larger

Firms to be diversified is more, as they can access to the capital market easily, may benefit from the higher credit ratings for issue of debt, and lower interest rates on external financing. It reveals' that leverage may enhance the profit after tax due to lower interest rates and ultimately the higher earnings may result in the highest EPS or dividend payout ratios which may increase the firm's performance. Even if the marginal earnings as the result of lower interest rates and tax shields are retained for the company's growth, it may maximize the company's value in long term and may lead towards the achievement of wealth maximization objective for which the real owners invest. So the author found the relationship between the size of the firm and leverage class.

Modigliani and Miller, (1958) support this verdict, that financial leverage and firm value have insignificant relationship while it exists only when those operate in taxable environment call for tax payments affecting capital structure. Weston, (2013) comments on MM's propositions which state that equilibrium in a perfect capital market requires that the market value of a firm not be changed by its financing decisions and the required return on equity will raise (linearly) with financial leverage. There is an inverse

relationship among profitability change and leverage change in short run provided with the fixed dividends and investments where the dominant mode of external financing is debt. It has been observed that large firms are inclined to issue less equity.

With the increase in firm size, the negative effect of profitability on leverage should be stronger but if the smaller firms are provide with investment opportunities, it may diminish correlation of profitability & leverage by larger equity issuance (Rajan; Zingales, 2013). Harris and Raviv,(2012) provided that there are corresponding leverage ratios commonly accepted by the firm in a given industry where as leverage ratios vary across industries. When the firms increase their leverage, shareholders' bid for common shares with low market value and less dividend than the value at liquidation and fixed dividend offered on preferred stock. Thus, the net effect on the firm is to increase its fixed obligations.

In researcher's opinion it may lead to the greater creditors' influence and the representation in the board of directors of the company which may lead the management to take risky projects for the company to maximize the returns as returns are the function of proportionate risks. Moreover as the common shareholder have a vote per share, so the voting rights of equity holders may decline who intent to participate in the offer (Pinegar; Lease,2016).

According to Masulis,'(2011) and De Angelo and Masulis'(2014) assumption that a firm may question and optimal level of debt that it could have may increase or diminish its value and may move push towards industry average. Firms efforts to work out optimal capital structure (De Angelo and Masulis,2014) is determined by various agency costs bankruptcy or tax gain on losses from leverage usage, compensating for other tax shield instruments of depletion, depreciation, amortization and investments

tax credits. Another research conducted by Hamada, (2012), found the relationship of equity cost and leverage of firms across industries. More variations were observed for the firms using leverage than that performing unlevered capital structure.

A study by Hall and Leonard Weiss, (2015) explained the presence of significant relationship of greater equity /depration with profitability, but also an influence of reducing risk, resulting in an increased profitability is observed. According to Louis, Cheng and Davidson,(2013) the market response to the det announcements may be affected by growth rate of firm. The firm with high growth rate may absorb the increased financial leverage as it may have ability to pay incremental interest expense and vice versa.

Corporate Leverage has remained one of the fascinating fields of research in finance; many researchers have been continuously studying the various dimensions of leverage of a firm. Studies on leverage are abundant and several attempts are made on this topic in foreign Countries. Modigliani Miller (1958) theorem is concerned with the question of how the market value of a firm is affected by the volume and structure of its debts. The central proposition of the theorem gave a clear answer to the proposition –neither the volume nor the structure of the debts affect the value of the firm, provided that financial markets work perfectly, that there are no taxes and that there are no bankruptcy costs .

Gordon (1962), found that, return on investment was negatively related to debt ratio. He also confirmed the negative association between operating risk and debt ratio. While analyzing the tax effect in the cost capital. Modigliani Miller, (1963) found that in the presence of corporate income taxes but in the absence of the bankruptcy risk, there is a linear relationship between the value of the levered firm and that of its debt. This

implies that a firm should maximize its uses of debt in order to enjoy the benefit of tax subsidy on interest payments.

Baxter (2015) reported that leverage would depend on the variance of net operating earnings. Since business with relatively stable income streams are less subject to the possibility of ruin, they may find it desirable to rely relatively heavily on debt financing. On the other hand, firms with risky income streams are less able to assume fixed charge sources of finance. Hence, he concluded that negative association existed between net operating earnings and leverage.

Gupta, (2012) conducted a study on the financial structure of American Manufacturing Enterprises. The focus of the study was to analyze the industry effect and the growth effect on the financial structural relationship of American Manufacturing Enterprises. It was a cross sectional study for the year 1961-62. The study confirmed that total debt ratios were positively related to growth and negatively related to size. He also found significant industry effect on debt ratio. He further observed that “family pattern of ownership” is an important determinant of leverage in the paper and allied product industry. Sarma and Rao,(2012) conducted a study on capital structure and cost capital and found that the cost of capital is affected by debt apart from its tax advantages. Toy *et al* (2014) reported that the higher the operating risk companies showed, the higher the debt ratio is. They found that debt ratios were positively related to growth typically measured as sales growth and return on investment was negatively related to debt ratio. They also concluded that the corporation size and the industry class did not appear to be determinants of debt ratio.

Chakarboty, (2013) conducted a study to investigate debt -equity ratio in the private corporate sector in India. He tested the relationship of debt-equity ratio with age; total

assets, retained earnings, profitability and capital intensity. He found that age, retained earnings and profitability were negatively correlated, while total assets and capital intensity were positively related to debt quality ratio.

Ferri and Jones, (2012) examined the determinants of financial structure. The objective of their study was to investigate the relationship between a firm's financial structure and its industrial class, size, variability of income and operating leverage. They found that the industry class was linked to the firm's leverage, but not in a direct manner as was suggested in other researches. Secondly, a firm's use of debt is related to its size, but the income could not be shown to be associated with the firm's leverage. Finally, operating leverage does influence the percentage of debt in a firm's financial structure and the relationship between these two types of leverage is similar to the negative linear form which financial theory suggests.

Sarkar, (2014) carried out a comprehensive study on the background of the central government companies in respect of their capital structure and the change over 1960-61 to 2012-70 and found that government agencies played a major role in the finance of PEs. He pointed out that the distinctive forms of public undertaking required serious notice while financing their modus operandi.

De Angelo and Masulis,(2014) demonstrated that with the presence of corporate tax shield substitutes for debt (e.g. depreciation, depletion amortization and investment tax credits), each firm could have “ a unique interior optimum leverage decision with or without leverage related costs”. Bhat, (2014) studied the impact of size, growth, business risk, dividend policy, profitability, debt service capacity and the degree of operating leverage on the leverage ratio of the firm. He used multiple regression models to find out the contribution of each characteristic. Business risk (defined as earnings

instability), profitability, dividend payment and debt service capacity were found to be significant determinants of the leverage ratio.

Ho and Singer,(2012) argued that even if short-term and long-term debts have the same priority in bankruptcy, short-term debt has a higher effective priority outside bankruptcy, because it is paid first. Thus, issuing short term debt to finance new investment projects offer potential benefits that are similar to those from issuing secured debt for controlling the underinvestment problem.Boquist and Moore, (2014) findings did not support the tax shield hypothesis at the firm level; however, they did find weak evidence in support of the theory at the industry level. They however, like other researchers, found that total leverage especially debt leverage varied across industry groupings.

Myers and Majluf, (2014) have argued that if managers have better information about the future investment opportunities of the firm than the potential investor, they might find it difficult to get external finance. This is because outsiders ask for a premium in order to compensate for the possibly of finding a bad firm. If the firm tries to finances its new projects by issuing equity, then the under-pricing may be so severe that a good firm may find it profitable to reject some of its projects even with positive Net Present Value (NPV). Thus the firm will always try to choose a security, which minimizes this problem known as Lemon problem.

Stulz and Johnson,(2015) demonstrated theoretically that secured debt reduced firm's opportunities to engage in asset substitution. Firms with proportionately more tangible assets, which can serve more easily as collateral find it difficult to shift to riskier projects when specific assets secure their debt. Pandey, (2015) reveals that the levels leverage in the Indian Industry is moving upwards and that the large majority of

companies leverage decisions seem to be independent of their size profitability growth and industrial variations.

Brander and Lewis, (2016) showed that the oligopolies had a tendency to increase business risk by adopting a more aggressive products market strategy supported by a positive debt level. This result in this model was driven by the fact that due to limited liability, equity holders of leveraged firm received pay-off only in good conditions. Given the assumption that the marginal product was higher in good condition the leverage created an incentive to produce more. Sarig, (2018) argued that firm's whose workers have easily transferable skills should have more debt. Maksimovic and Titman (2012) have held that firm's that manufacture products that are unique or require service, and firm's for which a reputation for producing high quality products is important, may be expected to have less debt, other things being equal. Athreya, (2013) observes that the trend, all over the world, is to leave economic activity to market forces and restrict government's role to the minimum. The emerging and desired corporate response to this is also widely believed to be „restructuring“. The private corporate sector in India, as elsewhere in earlier periods, is responding with one, two or all the three dimensions of restructuring .i.e., Business Restructuring, Organizational Redesign and Financial Engineering. All three dimensions are also relevant to the PEs. Financial engineering involves and includes activities like changing the debt-equity ratio, reducing wastages, cutting costs, improving margins, profitability and market capitalization.

Carelton and Siberman, (2013) concluded that higher the variability in the rate of return on invested capital, lower will be the degree of financial leverage adopted. Hence it is the variance, not the rate of return that is the ultimate determinant of leverage. They

also found return on investment to be negatively related to debt ratio. Mathew,(2013) had made an attempt to analyze the relationship between ownership structure and financial structure with a view to know whether the former had any impact on the latter. The analysis was based on three hypothetical relationships that existed between ownership structures on one hand and unsystematic risk, non- manufacturing expenses and profit appropriation policies on the other hand. He concluded that where the management stake is high, leverage will be low and vice versa and there existed a significant relationship between ownership structure and financial structure of firms.

Booth, Aiazian, and Kuntdemirgne, and Maksimoie, (2014) found that optimal capital structure choice in developing countries is strongly influenced by factors such as size, asset structure, profitability and short term financial distress cost. Bradley, Jarroll and Kim, (2002) found that debt to asset ratio is negatively related to the volatility of annual operating earnings and advertising and Research and Development expenses. Fama and French, (2002) argued that dividend and debt convey information about profitability, which clearly shows the tax effects of finance decision. They have discussed how a firm's value is related to dividend and debt. Accordingly, simple tax hypothesis says that firm value is negatively related to dividend and positively related to debt. With a good control for profitability, one can show how the taxation of dividend and debt affect the value of a firm.

Saumitra N Bhaduri, (2002) attempted to study the capital structure choice of developing countries through a careful study of the Indian corporate sector. He used factor analytical model to determine a minimum number of unobservable common factors by studying the co-variance among a set of observed variables. He found that growth, size cash flow, uniqueness, and industry character influenced a capital structure

of variation of corporate firms. Mohanty, (2013) found that leverage is negatively related with profitability and value of the firm both within industry as well as within the Indian economy. It has been found that companies that spend a large sum of money on advertisement and Research and Development expenditure are least levered.

Rao and Lukose, (2013) analyzed the determination of the capital structure of non-financial firms in India prior to, and following the significant liberalization of financial markets after 2013. Cross sectional models of market and book value leverage were estimated for the pre (1990-2013) and post- (2013-2014) liberalization periods using conventional explanatory variables of Capital Structure. Prashanth and Narayanan, (2015) use feasible generalized least squares to estimate a panel model of capital structure for the Indian manufacturing sector. Their model controlled for a variety of factors including firm size, taxes, cash, interest coverage ratio, and profitability. They also analyzed the effect of firm tenure on leverage by interacting each independent variable with a dummy variable for age as well as size. Size and profitability were found to be the most important determinants of the capital structure for young firms. The authors found that size was positively related to leverage while profitability was inversely related to leverage.

Ayesha Mazhar and Mohamed Nasr, (2011) attempted to examine the factors influencing the firm's choice of a debt-equity ratio. They selected a sample of Pakistani companies registered on Islamabad Stock Exchange. The sample comprised 91 Pakistani companies out of which companies are private and are government owned covering the period of 2014-2015. Tangibility, size growth rate tax provision, Return on Assets and profitability are used as independent variables, while leverage is the dependent variable. For analysis purpose descriptive Statistics, Spearman's correlation

and Regression analysis are used. The result implied that government owned and private companies of Pakistan use different patterns of financing and that government owned companies employ more leverage than private companies. Further, he concluded that variables like size do not matter in determination of capital structure of Pakistan companies. The results suggest that asset tangibility (Ta) profitability (PF) and ROA is negatively correlated with debt. Where size (SZ), Growth rate (GT), and Tax rate (TAX) is positively related with leverage.

Anjum and Malik, (2013) examined determinants of corporate liquidity and size of the firm, net working capital; leverage, cash conversion cycle and sales growth affect the cash holdings of corporate organizations. The study evaluated the financial difficulties of Pakistani firms that were listed on Karachi Securities Exchange (KSE). The non-financial companies from 2003 to 2010 were used as the sample and the analysis was done by using Z-score model. The findings concluded that the leverage is positively significant to the financially distressed firms in Pakistan's securities exchange and it suggests that the use of a high level of leverage contributes to the bankruptcy. The study argued further that leverage is a key financial to financial performance

Razak, (2012) examined the effect of leverage on the financial performance of general insurance companies in Malaysia and investigated whether the leverage-performance relationship is a function of contingent on the extent of product diversification. The study used the entire population of authorized general insurance companies operating during the period 2006 to 2009 in Malaysia. Ninety four (94) observations were analyzed. All the data used was sourced from the Malaysian Central Bank's (BNM) database. Razak (2012) found that leverage is negatively associated with firm performance. However, there is a significant interaction effect between leverage and

product diversity on firm performance. The finding indicates that leverage could be beneficial or detrimental to the financial performance of general insurance firms, contingent on the extent of product diversity of the firm.

Akande, (2013) evaluated the effect of financial leverage on the financial performance using 10 firms from Nigeria during the period 1991- 2010. The Ordinary Least Squares (OLS) regression show that positive relationships exist between total debts to capital employed (DC) and return on equity (ROE), earnings per share (EPS) and dividend per share (DPS), and negative relationship exists between DC and ROA. Chinaemerem and Anthony (2012) showed that financial leverage surrogated by debt ratio has a significant but negative effect on the financial performance denoted by ROA and ROE. Akeem, Terer, Kiyanjui and Kayode (2014) examined the effect of capital structure on the performance of 10 quoted manufacturing firms in Nigeria from 2002- 2012. Results revealed that total debt to asset ratio has negative effect on ROA, and positive effect on return on investment (ROI), while total debt to equity ratio has negative effect on ROA and ROI. Additionally, long-term debt to capital employed has no effect on the ROA and ROI.

Uwalomwa and Uadiale, (2012) reported that while short-term debt has a significant positive effect on financial performance, long-term debt has a significant negative effect on the financial performance of firms in Nigeria. In another study of Nigerian firms, Innocent, *et al.*, (2014) analyzed the effect of financial leverage on the financial performance using evidence from quoted pharmaceutical companies during the period 2001- 2012. The authors' found that debt ratio and debt-equity ratio have negative link with ROA, while interest coverage ratio has a positive relationship with ROA in Nigerian pharmaceutical industry during the period

of study. Rehman, (2013) assessed the relationship between financial leverage and financial performance of 35 listed sugar companies in Pakistan for a period of 6 years from 2006- 2011. The result showed that financial leverage has a positive relationship with ROA and sales growth, and negative relationship with EPS, net profit margin (NPM) and ROE. In Kenya, Gweyi and Karanja (2014) studied the effect of financial leverage on firm performance of 40 deposit-taking savings and credit co-operative firms from 2000 to 2012.

The result showed perfect positive correlation between financial leverage surrogated by debt-equity ratio and financial performance surrogated by ROE. Maina and Kondongo (2013) relying on quoted firms in Kenya, revealed that debt-equity ratio has a significant negative association with all measures of financial performance during the period 2002- 2011.

In Sri Lanka, Leon, (2013) conducted a study on the impact of capital structure on the financial performance from 2008- 2012, using correlation and regression techniques. The results indicate that, while the relationship between financial leverage and return on equity is significant and negative, the association between financial leverage and return on assets was not significant. Ningsih and Djuaeriah (2013) discovered negative relationship between financial leverage and ROA, and positive relationship between financial leverage and ROE of listed cement companies in Indonesia.

Financial leverage being a sensitive area in finance has attracted the attention of many scholars. Studies reviewed reveal that focus has been given to examine the of capital structure of firms, from different angles researchers have extensively examined the determinants of leverage of different companies.

Studies reviewed on leverage indicate that leverage could be beneficial or detrimental to the financial performance of firms, contingent on the extent of product diversity of the firm. These studies do not link leverage as a financial flexibility and are based on specific financial industries such as the insurance companies in and therefore the findings cannot be generalized for the listed firm in Kenya. This study therefore aimed to bridge these gaps by providing more insight on firm leverage relationship to financial flexibility, board capital and financial performance for firms listed in Nairobi Securities Exchange in Kenya.

2.5.3 Dividend pay-out and financial performance

Ross, Westerfield & Jaffe (1999) defined dividend payout as amount of cash paid to shareholders expressed as a percentage of earnings per share. Welch (2009) defined dividend payout ratio as the ratio of dividends to net income. The dividend payout ratio measures what percent of earnings is paid out as dividends. Holding everything else equal, the same firm that pays out more of its earnings today would pay out less in the future. If it had retained earnings, it would have earned more cash for payout later

Brealy, Myers & Marcus, (2007), isolated payout policy from other problems of financial management by asking a question on the effect of a change in payout policy given the firm's capital budgeting and borrowing decisions. If a firm proposes to increase its dividend, the cash to finance that dividend has to come from somewhere. Fixing the firm's investment outlays and borrowing leaves only one possible source which is to issue securities. If a firm decides to reduce its dividend it will have extra cash. If investment outlays and borrowing are fixed repurchasing securities is the only one possible way that this cash can be used. The payout policy therefore involves a tradeoff between higher or lower cash dividends and the issue and repurchase of

securities. There exist three opposing point views with payout policy. On one side there is a group that believes high dividends increase value. On the other side there is a group that believes high dividends bring high taxes and therefore reduce firm value and in the third party believes payout policy makes no difference.

In a situation where a firm pays low dividend due to low cash availability, the management will consider external sources of financing could be either lending or share issue it is importance to balance firm's needs (Manneh and Naser, 2015). The retained earning plays an important role for future expansion, which would lead to higher dividend payout. The dividend payout decision starts with profitability, if the firm experience high profitability lead to high dividend payment to shareholders. In order to pay cash dividend to shareholders or issue further shares depend on the level of the firm's inappropriate profit or excess cash and such distribution can be in cash or by issue of additional shares (Azeez and Latifat, 2015).

It is important to consider investment opportunities when making such decision that would increase future earnings and if such opportunities are not available, the management should distribute the earnings to shareholders (Abdul and Haruto, 2012). The dividend payment does not only. The larger the proportion of dividend paid, the lower funds being retained for investments and the more the company will have to place reliance on alternative sources of funds such as issue of additional shares and or debt capital to finance selected viable projects (Sindhu, 2014). The firms 'profitability been considered as the primary determinant of the firms' capability to pay dividend currently and in the future prospect.

Murekefu and Ouma, (2012) conducted a study on the relationship between dividend payout and firm performance among firms listed on the Nairobi Security Exchange.

They found that there is strong and positive relationship between dividend payout and performance. They also state that firms that pay high dividends without considering investment needs may therefore experience lower future earnings or decrease in firm value.

Amidu and Abor, (2016) conducted the research on the determinants of dividend payout ratio in Ghana for a period of six years. The dependent variable is dividend payout ratio and independent variables profitability, institutional holdings, cash flow, sales growth, tax, market to book value and risk. They found a positive association between dividend payout and profitability, cash flow and tax and a negative association between dividend payout and risk, institutional holding, growth and market to book value. The significant variables were profitability, cash flow, sales growth and market to book value.

Al-Malkawi, *et al* (2015) carried out the study on the determinants of dividend payout in Jordan of public firms listed on the Amman stock Exchange for a period from 2013 to 2014. Their findings showed that the insider and state ownership positively affect the amount of dividend payments. In addition to the results, size, age and profitability found to be determinants factor of dividend payout policy in Jordan. The results supported the agency hypothesis and are broadly consistent with the pecking order theory but not supported for the signaling hypothesis.

Biza-Khupe and Themba (2016) conducted on the relationship between dividend payout and financial performance of firms listed in Botswana. The dependent variable dividend payout and independent variables involve profitability, risk and size. Their results showed the positive relationship between profitability, firm size and dividend payout whereas systematic risk found negatively relationship.

Ijaiya, Sanni, Amujo and Suleiman, (2014) on the relationship between dividend policy and financial performance used financial reports for five years; their findings show an insignificant relationship between dividend payout ratio and financial performance. Mutisya 2014 on the relationship between financial performance and dividend payout, firm size and leverage as independent variables for a period 2016 to 2013 using regression analysis, findings show a positive relationship between variable but there is a negative relationship between financial performance and leverage.

Some studies have found that firm value is not influenced by the increase or decrease in dividend payouts, whereas some studies found that dividend payouts affect firm value. A survey was conducted by Farrelly, Baker and Edelman (2015) in which they found that according to the view of managers there is an optimal level of dividend payouts, and firm value is influenced by dividend payouts. The same results were found by Baker and Powell (2014) in a survey that firm value and wealth of shareholder is affected by dividend policy.

Pandy, (2014) investigated the dividend payment behaviour in Malaysia and results showed that dividend payment ratios among different industries are different in Malaysia. The result also indicated that profitability, firm's size and investment opportunities affect dividend payments. These results suggested that larger and more profitable companies' opportunities pay fewer dividends. The results also suggested that corporations that never pay dividends are more profitable. Majority of the investors in NSE are individuals without any investment knowledge and whose investment plans are driven by excitement, emotion and psychological reasons, while in the developed markets, the main investors are institutions and individuals who are highly

knowledgeable on investment matters or rely heavily on investment advice when making decisions.

Nissim and Ziv,(2014) found that dividends increases and decreases are not symmetric. Dividend increases are associated with future profitability for at least two years after the dividend change, whereas dividend decreases are not related to future profitability, after controlling for current and expected profitable. They propose that this lack of association can be explained by accounting conservatism. They therefore conclude that there is a positive relationship between dividend payout and future earnings.

A study by Arnott and Asness,(2013) revealed that future earnings growth is associated with high rather than low dividend payout. They concluded that historical evidence strongly suggests that expected future earnings growth is fastest when current payout ratios are high and slowest when payout ratios are low. Their evidence contradicted the view that substantial reinvestment of retained earnings would fuel faster future earnings growth.

A study by Dhanani, (2015) revealed that dividend policy is important in maximizing shareholder value. A firm's dividend policy can influence one or more of imperfections in the real world such as information problems between managers and shareholders, taxes and transaction costs and in turn enhance the firms value to shareholders.Njoroge, (2014) studied listed companies from 2012 to 2014 and used linear regression technique with dividend payout as the dependent variable and return on equity, return on assets, growth in assets, as independent variables. The researcher found out that neither return on assets, return on equity nor growth in assets were significant in determining dividend payout ratios.

Bitok, (2012) studied the effect of dividend policy on the value of the firms quoted at the NSE. The population of interest in the study consisted of all the firms quoted at the NSE for a period of 6 years from 2014 to 2010. The study was facilitated by use of secondary data. The data collected was analyzed using simple linear regression and correlation analysis. The researcher found out that, on average, there was a significant positive relationship between dividend policy and the value of the firm.

Muriuki, (2018) examined the relationship between dividend policies and share prices for companies quoted at the NSE. He used all 47 firms listed from 2015 to 2016 with the help of multivariate regression model and concluded that there is a negative relationship between share price and usage of constant payout ratio. Usage of constant amount per share had appositve relationship with share prices. Siero,(2015) did an exploratory study at the NSE on determining the probability of a company paying dividends. He observed that dividend payout ratio, dividend yield, price earnings ratio and book value are the most significant factors in discriminating the dividend paying firms form non- payers at the NSE. He concluded that financial ratios are useful in estimating the likelihood of firm paying dividends Njuru,(2015) did a study to test for ‘under reaction’ to stock dividend announcement at Nairobi Securities Exchange (NSE). The results showed evidence in favour of existence of under reaction to stock dividend at the NSE for the period of 2014 to 2015.

Financial flexibility is also affected by dividend pay-out policy. A firm is primarily faced with two options in the case of producing cash flows in excess of its current investment needs: securities piling cash for future needs or paying out the excess cash flows to shareholders. Accordingly, a firm facing financing frictions in forms of high costs of external finance and/or high volatility in its investment opportunity set tends to

adopt a policy of low equity pay-outs (Almeida *et al.* (2004). Hence, in the concept of financial flexibility, the findings by Almeida *et al.* (2004) support the view that flexibility affects the level of pay-out. Hypothesis states that dividend initiations signal lower agency costs (Rozeff (1982), Easterbrook (1984), Jensen (1986)) and is perceived as a signal of higher expected future cash flow/portability for initiating firms (Officer (2011)). Thus, the incentive to save a higher proportion of cash flows as cash, instead of paying out the cash flow to shareholders, vary based on the characteristics of firms and their exposure to financing frictions and need for financial slack. Agency costs of cash accumulation are according to theory higher for firms with relatively poor investment opportunities and a value-maximizing pay-out policy for such a firm involves higher pay-out levels. In a model based in this prediction, the measures of the value of the firm's growth opportunities are to be negatively associated with dividends (Fama and French, (2001), Denis and Osobov,(2008), De Angelo,*et al.* (2006)).

Correspondingly to the above, firms tend to be reluctant to reduce stated dividends since such action could be perceived as a negative signal by the market according to the findings of Blau and Fuller (2008). A potentially more flexible alternative is share repurchases, since it can be adjusted “depending on whether current cash flows represent permanent earnings or whether the current earnings stream is likely to be non-recurring” (Denis (2011)). By not raising dividends and instead use share repurchases in situations of cash-flows in excess to current investment needs, firms thus avoids future dividend constraints and thus increase the mean level of cash available for investment (Brav *et al.* (2005), Daniel *et al.* (2011)). The findings by Jaggannathan *et al.* (2000) suggests that firms that uses repurchases as the chosen form of pay-out tend to have more volatile cash flows and higher non-operating cash flows than firms using dividends for distributing cash. This in turn suggests that firms with uncertain cash

flows are more likely to use repurchases if this uncertainty increases the likelihood of frictions associated with raising external capital (Jaggannathan *et al.* (2000), Lie (2005)). The findings by Jaggannathan *et al.* (2000) are extended by Bonaime *et al.* (2012), to however a firm's chosen form of pay-out is affected by its risk management policies. Their findings suggests that pay-out flexibility offers operational hedging benefits and that the extent to which a firm uses hedging in their risk management affects both a firm's level and form of pay-out.

Accordingly, flexibility considerations are likely to affect, not only the level, but also the form of pay-outs. Recent findings by Fama and French (2001) present evidence that firms, regardless of firm characteristics, has become less likely to pay dividends. The authors suggests that the perceived benefits of dividends have declined through time and that there has been an increasing tilt of publicly traded firms towards characteristics such as small size, low earnings and non-dividend paying.

Lastly, an alternative source of financial flexibility besides cash holdings, corporate structure policies and corporate pay-out policies, are the sale of assets. Assets sales can, according to theory, cover cash shortfalls that otherwise may result in investment and dividend cuts. However, due to asset illiquidity, this option can be excessively expensive (Shleifer and Vishny, 1992).

Reviewed literature on dividend policy noted that there exist three opposing point views with payout policy. On one side there is a group that believes high dividends increase value. On the other side there is a group that believes high dividends bring high taxes and therefore reduce firm value and in the third party believes payout policy makes no difference. These studies however conclusively fail to identify the most effective point of view to enhance financial performance of a firm which were addressed in this study.

2.5.4 Capital Expenditure and Financial Performance

The body of empirical evidence regarding the subject matter is conflicted with two schools of thought being in existence. The first is of the view that just like any other well researched analyzed and executed investment, capital expenditures translate to returns manifested through increased financial performance. Lev and Thiagrajan, (2013) stated that capital investments represent a fundamental signal claimed by analysts to be useful in predicting future profitability and stock returns.

A large number of studies relating to capital expenditure and financial performance make use of stock returns as the measure of financial performance understandably because any measure of an organization's performance must be linked to the goal of shareholders wealth maximization as evidenced by the firm's stock price. Few studies utilize accounting based measures of financial performance ostensibly because of the ability of these measures to be manipulated through creative accounting and/or revenue/cost recognition. The foregoing review of empirical studies presents findings of studies that evaluated financial performance using both accounting measures and stock return measures of financial performance.

McConnell and Muscarella (2015), indicate that announcements of increases in planned capital investments are generally associated with significantly positive excess stock returns. They find that on average, the stock market reacts positively to announcements of increases in planned capital expenditures and negatively to decreases in planned capital expenditures. This view is supported by Woolridge (2018) who observed that the current literature which is mostly focused on managerial behavior in advanced economies, reports evidence that shareholder wealth is positively affected when firms make capital spending decisions. Woolridge (2018) further reports positive stock price

reaction to a variety of long-term strategic investments such as joint ventures, plant and equipment purchases, new product introductions, and research and development expenditures.

Martin and Kensiner (1990), studied the share-price response to announcements of increases in research and development spending. They find that on average, there are significant positive reactions even when the announcement occurs in the face of an earnings decline. In follow-up studies, Blose and Shieh (2013) find a significant positive relation between the magnitude of the stock market reaction to capital investment announcements and the level of new investment.

Chung, Wright and Charoenwong (2014), argue that financial performance as measured by share price reaction depends critically on the market's assessment about the quality of a firm's capital expenditure decisions. They postulate that for firms with high quality investment opportunities, announcements of increased capital spending decisions are accompanied by increases in the firm's share prices. The reverse is true for firms without what the market perceives as quality investment Opportunities. Fama and French (2014) studied the relationship between firm investment and profitability for the aggregate non-financial U. S. corporations by computing the overall internal rate of return on investment. A positive internal rate of return led them to conclude that "on average corporate investment seems to be profitable" Ching-Hai, Hsiang, Chen and Yen-Sheng (2015) examine the relationship between capital expenditures and corporate earnings for 357 manufacturing firms listed on the Taiwan Stock Exchange over a 10 year period. The findings indicate a significantly positive association between capital expenditures and future corporate earnings even after controlling for current corporate earnings.

Brooke, (2014) disaggregated capital expenditure between maintenance CAPEX and growth CAPEX. They find that growth CAPEX exhibited a more positive association with future financial performance than maintenance CAPEX. They further postulate that this positive association is decreased by agency costs. The second school of thought documents a negative relationship between capital expenditure and financial performance. Abarbanell and Bushee, (2013) show that capital expenditure conveys a negative signal for future earnings and conclude that there seems to be a negative relation between capital investment and future profitability. They conjectured that capital expenditures could be a bad signal for future earnings if poor performing firms take on excessive projects. They further report that industry-adjusted capital expenditure growth is negatively associated with future returns.

Titman, Wei and Xie, (2012) report that there exists a negative association between capital investments and future stock returns. This negative association is stronger in firms with higher free cash flow and lower debt ratios. They interpret their evidence on the backdrop of the free cash flow theory and attribute the negative relationship to the overinvestment behavior by managers with empire building incentives. They compare Japanese Keiretsu (intertwined) firms and independent firms and find that in the former groups, there is a negative association between investment and future returns while in the latter, the association is positive. The result is consistent with the idea that keiretsu firms, which have low-cost access to capital, tend to over invest.

Fairfield, Whisenant and Yohn, (2013) study the relationship using return on assets, an accounting based measure of financial performance. Following a financial statement analysis study, they document a negative association between growth in net long term operating assets and one year ahead future return on assets. Richardson, Richard,

Sloan and Irem, (2015) find a similar association and attribute it to the lower reliability of long term asset accruals.

Chen, Yao, Yu, and Zhang, (2016) examine the effect of corporate asset growth on stock returns using data on nine equity markets in the Pacific-Basin region. They find a pervasive negative relationship between asset growth and subsequent stock returns during the sample period from 2011 to 2012. Similar findings are documented by Cooper, Gulen, and Schill, (2016) who studied firm asset growth and subsequent stock return. The study ranked firms in the U.S market during the period 1968 to 2013 into rankings based on their level of asset growth. They show that firms with high asset growth had a 20% lower return than firms with low asset growth or capital expenditure.

Capital expenditure is an investment that entails an outlay in the present, in exchange for a payoff in the future. The future payoff is expected to exceed the value of investment hence providing a return that increases firm value and maximizes shareholders wealth. The foregoing forms the basis of the financial theory that the effect of capital expenditure should have a positively correlated relationship with firm's financial performance. Al Farouque, Tony, Dunstan and Karim, (2005), found that capital expenditure had a positive influence on corporate performance as measured using Return on Assets (ROA).

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shareholders wealth maximization as evidenced by the firm's securities price. Few studies utilize accounting based measures of financial performance ostensibly because of the ability of these measures to be manipulated through creative accounting and/or revenue/cost recognition. This study presents findings of studies that evaluated financial performance using both accounting measures and securities return measures of financial performance while also looking into the effect of board capital on financial performance

2.5.5 Moderating Effect Board Capital and Financial Performance

Board Capital has been referred to as a controlling force in organizations. Board capital which is usually referred to board incumbents' capabilities to advise and guide company management and also to have a check over their performance varies among directors. Findings of this study are congruent with the views that board capital in terms of outside directors' qualification and capabilities to exert control over management benefits the business. Meckling, (1976) emphasized that controlling and motivating forces moderate administrator' opportunistic activities. External directors are precious in enhancing a board's advisory and pursuing capabilities. Acharya, *et al.* (2019) outlined that influential external directors can be precious while CEOs are less entrenched and decrease supervisor-shareholder organization charges which offended shareholder pursuits. Independent directors play an inevitable role and check over managements' performance and activities. A greater ratio of independent or outside directors on board makes the managements' performance supervision more robust. Although highly concentrated ownership may impede outside directors' control over performance, their presence posits positive impact on firms' performance. On board independent directors are considered to deal with agency problems more effectively as they would be able to

supervise self-interested motives of managers more easily. Such establishment would eventually enhance firms' performances.

However, dependent upon board size, authoritative imbalances could be instigated between inside and outside board directors. Weisbach, (2018) established the inefficient execution of a firm operation, when inside executives are suppressed and hindered by outside executives. Subsequently, the firms with perpetually poor earnings possess normally higher extent of outside executives on the board panel. The duality position in an organization means when a person is simultaneously Board Chairman (COB) and Chief Executive Officer (CEO) as well. The CEO will probably utilize his strength as board executive to choose incumbents of his prefer. There are two theories that support and reject the duality position in an employer which is agency theory and stewardship theory. Agency theory posits that an incumbent having a place in board of directors, like board chairman and CEO as well, would highly likely to serve his own interest against the overall goals of firm. However, stewardship theory states that managers are self-responsible and don't need any check and balance

Nuria Reguera-Alvarado, (2017) explored the interdependence between characteristics of independent or outside directors' and firm's financial performance with their tenure and multiple directorships. In their study characteristics of independent directors were used as explanatory variable, while firm performance was taken as dependent variable for the period of 2008-12. Investor Responsibility Research Center (IRRC) was used as data source to collect the information about board directors. Their study showed the favorable interdependence between independent directors and firm performance in post sarbanse oxely (SOX) period. Jigao and Chan, (2016) conducted a study and determined the relationship among board, independent executives, hierarchy and firm

value with the evidences collected from China. Results suggested that the one way in which authorized independent managers could be beneficial to the organization is through their dependable observing of business affairs. Rutledge and Lu, (2016) evaluated the effect of CEO duality and board structure on financial performance of firms using the data from NASDAQ 100 Index with panels for correlation problem. Various significant associations were established from the study. Independent executive group overlay showed a significantly positive association with firm value.

Elgiziry, (2017) discovered, how corporate business leverage is influenced by corporate governance dimensions like ownership structure and board characteristics. In their research paper they used agency theory to support the ownership structure. The ownership structure and board characteristics played an important role in determining the Egyptian corporate financial leverage. Institutional and governmental ownership were significantly and positively linked to corporate leverage, whereas block holding, board female, and board size were found to be significantly but negatively associated. Managerial share ownership increases the firm's leverage as stockholders become more inspired to deploy extensive level of debt to increase firm value, nevertheless the insignificant results could be credited to the low level of managerial influence. He also examined how board ownership structure and board characteristics influence the corporate financial leverage. In their study, board characteristics were used as an explanatory variables and company leverage was dependent variable. Data was gathered from the stock exchange firms of Egypt for the period 2007-2011. Results revealed that board size played a significant role in formulating the degree of financial leverage and monitoring management. Large board panels proved more effective in monitoring the managers and to exert pressure on board to employ lower level of responsibility than the smaller panels.

Guizani, (2015) evaluated the role of outside directors on firm performance with the guiding impacts of the board administration structure and ownership. These results provided strong support to the governance with reference to the role played by external executives. Arora, (2016) examined the interdependence of firm's financial performance & board ownership and other corporate governance characteristics with the empirical evidence from India. The board capital, board size, board meetings were used as explanatory variables and firm performance was dependent variable. Dependence theory was used to support the independent director's findings. Samples were selected from twenty biggest firms of the manufacturing sector. Findings showed that there were negative association between company performance and board characteristics. The more meetings, outside membership, and larger board were considered as exclusive affairs of the firm.

Wang and Yang, (2016) depicted the association among board independence, and performance of corporations in China. Board independence & ownership structure were used as an autonomous factors and firm performance was response variable for the purpose of this study. Dependence theory was used to support the independent director's findings. In their study, the data was collected from 16,000 firms registered with stock exchange of China. The level of the board dependence had significant association with the company's performance, particularly in government owned well-ordered companies and in companies with less information monitoring costs and acquisition. That was due to the selection of autonomous executives, who were efficiently observing firm administration and maintain the objective of investor's wealth growth.

Goh, (2014) examined the association among panel independence, corporate governance, duality, and financial performance in family companies with the substantiation from the manufacturing business in Malaysia. In their study the CEO duality, control contestability, board independence & ownership structure were used as a predictor variables and firm performance was dependent variable. Dependence theory was used to support the independent director's findings and agency theory was to support ownership structure. Sample data was collected from family companies registered in the manufacturing produce directory in Malaysia stock exchange. Findings showed that instruments on firm performance were clarified from end to end moderating and casual examination. Board independence exerted an insignificant effect, whereas a high percentage of independent executives were insufficient control contestability to exercise operational firm monitoring.

Iftikhar and Yasir, (2013) observed the association among board structure, CEO duality, and corporate fiscal performance. In their study the internal and external directors, managerial ownership, board size was used as an autonomous factors and firm performance was dependent factor. Dependence theory was used to support the independent director's findings and agency theory supported ownership structure. Data was collected from Karachi Stock Exchange's listed companies and sampling technique was used for this study was convenience sampling. There was a negative impact of executive and independent directors on corporate performance of companies in Pakistan. Because in Pakistan there is large pool of family owned businesses while external dominance is dispirited.

Johl, (2019) conducted a research to establish the relationship between board structure and firm performance with the confirmation from India's top firms. In this examination,

inside administration structures were utilized as autonomous factors and firm execution was dependent variable. Information was gathered from OSIRIS database and firms tested, were the top Indian firms recorded on the Bombay Stock Exchange by advertise capitalization. By supporting the view that more noteworthy experience to the outer condition enhances access to numerous capital sources and decidedly impacts on performance. The investigation however neglected to bolster the asset reliance hypothesis as far as the connection between recurrence of executive gatherings and performance.

However, the outside administrators may not be the vital systems administration contacts that were important to produce benefits to the protest. One likely purpose behind this assessment is the restricted pool of outer chiefs with the correct information in India. In gathering, Indian firms particularly family claimed business may either acquire the correct individuals on board in respect of conceivable loss of control. Another examination explored the connection among corporate governance mechanism and financial performance (Bhagat & Bolton, 2018). In their investigation, corporate governance was utilized as an independent variable and firm performance was dependent variable. Asset reliance hypothesis upheld the proprietorship discoveries. President seat division and ownership of board individuals were essentially and decidedly related with better resulting and synchronous powerful performance. Curiously, board freedom contrarily corresponded with resulting and synchronous compelling performance.

Nowak, (2018) explored the impact of independent executive on company executives. Board of directors was dependent variable and independent directors were used as an independent variable in this research. A qualitative technique was used as grounded

research approach and thirty executives of Australian public registered firms were questioned. Results indicated that the management influenced a mainstream of nonexecutive directors for equalization of energy in the administration alliance. The contrast between Non Executive Directors (NEDs), NEDs who are not free, and who are additionally autonomous executives, was highlighted as a vital distinction. These outcomes were supported to resource dependence theory. The capacity for board individuals to think autonomously apparently was enhanced, yet not really shielded, with greater part participation of NEDs. All things considered, a standard of free personalities passed on various realities of view was seen to decrease the board room hazard of "bunch think."

Shakir, (2014) investigated the association among the executive directors, size of the board and real estate firms 'performance in Malaysia. In this study board size, executive directors, independent directors were used as an independent variable and firm performance was dependent variable. Sample comprised of 81 listed companies' panel data for the period of 1999 to 2005. The samples consisted of companies listed under the assets area on the board of the Stock Exchange of Kuala Lumpur (KLSE). There was significant interdependence between property firm's performance, Board Size, and Executive Directors.

2.6 Conceptual Framework

A concept is an abstract or general idea inferred or derived from specific instances (Kombo & Tromp, 2009), unlike a theory, a concept does not need to be discussed to be understood (Durham & Stokes, 2015). A conceptual framework is a device that organizes empirical observations in a meaningful Structure (Shapira, 2011). Childs

(2010) argued a conceptual framework to be a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation.

When clearly articulated, a conceptual framework has potential usefulness as a tool to assist a researcher to make meaning of subsequent findings. It forms part of the agenda for negotiation to be scrutinized, tested, reviewed and reformed as a result of investigation and it explains the possible connections between the variables (Durham & Stokes, 2015). Conceptual frameworks are pivotal to research as they clarify and integrate philosophical, methodological and pragmatic aspects of doctoral thesis while helping the profession to be seen as a research-based discipline, comfortable with the language of meta-theoretical debate, (Sykes & Piper, 2015).

A conceptual framework for the present study shows how financial flexibility moderates board capital on financial performance of firms listed in NSE Kenya and has been depicted in Figure 1.1 below. Figure 1.1 conceptualizes that independent variable that is financial flexibility (liquidity, leverage, dividend pay-out, and capital expenditure) influence on financial performance for firms listed in Kenya. The framework also illustrates the dependent variable which is financial performance and the moderating variable which is board capital.

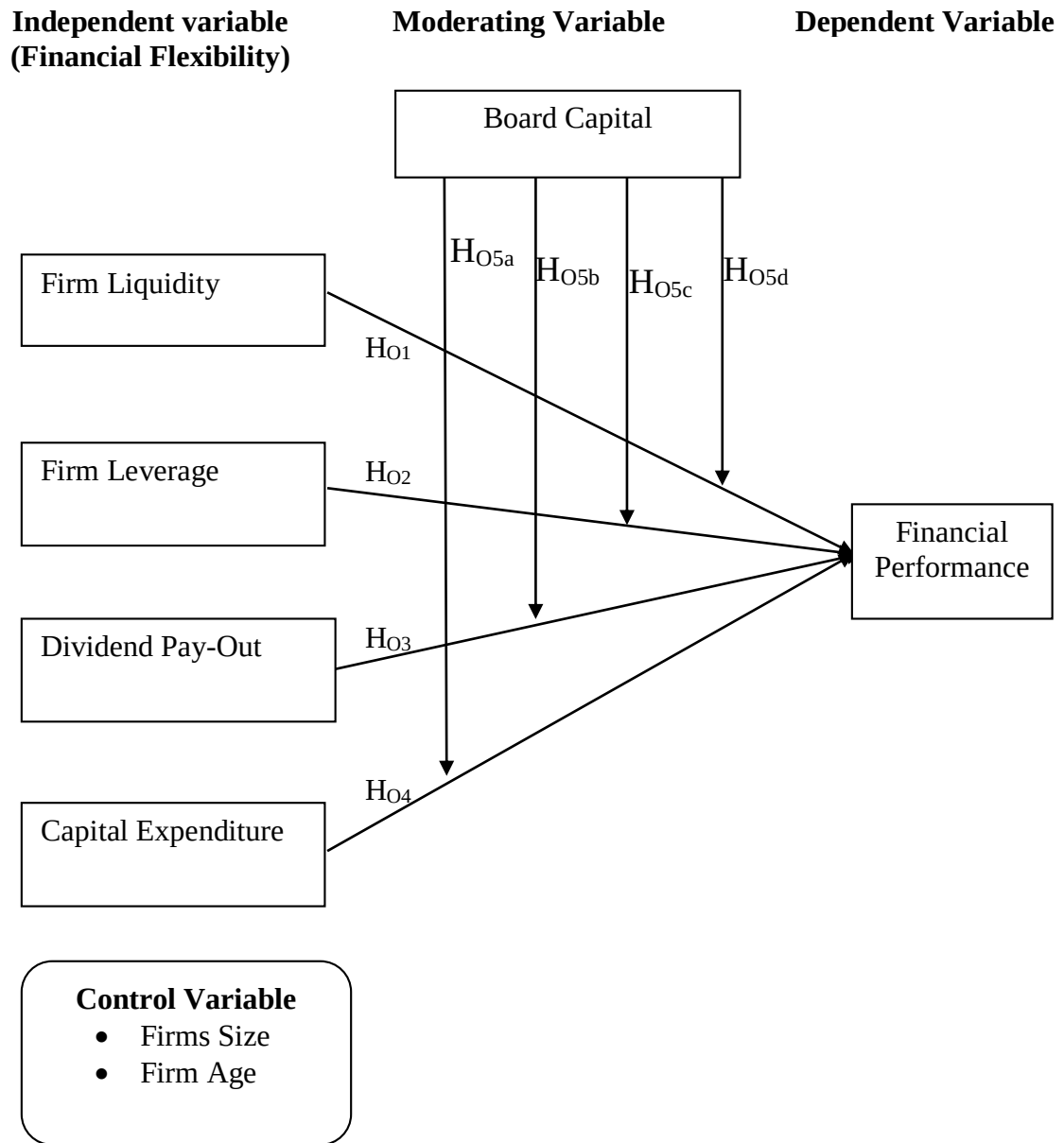


Figure 2.1: Conceptual Framework

Source: Researcher, (2020)

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter reviews the research philosophy, the research design, the study population, study area, data collection technique, procedure and analysis methods. Others include model specification, diagnostic test to be undertaken, ethical consideration and measurement of variables.

3.1 Research Philosophy

A research philosophy is the set of common beliefs and agreements shared between scientists about how problems should be understood and addressed (Kuhn, 1962). It is an approach or a research model to conducting a research that has been verified by the research community for long and that has been in practice for hundreds of years. According to Erickson & Kovalainen, (2015) philosophical concepts help specify research design used in the study.

The study used positivist research paradigm. Positivism proponents believe that the social world is viewed objectively, exists externally and can be studied as natural. Positivism philosophy according to Z.K. Mund, Babin, Carr, Adhika & Griffin, (2013) gives the researcher the freedom to choose technique, methods and procedures that best suit their need and purpose. Positivism adheres to the view that only factual knowledge gained through observation, including measurement, is trustworthy. Positivism suited the study as it comprises of the objectivity assumption which views the researcher as an objective observer and reporter of data through sample selection procedures, measurement of variables and statistical analysis (Vanderstoep & Johnston, 2009).

The study was of a cause-effect nature and sought to explain the moderating effect of board capital on the relationship between financial flexibility and financial performance, justifying the philosophical choice as argued by Holden and Lynch (2004), that the aim of social science in a positivist perspective should be to identify causal explanations and fundamental laws that explain regularities in human social behavior.

Cresswell, (2014) posits that acceptable approach to research by positivism is that, it start with the theory, collection of the data, analysis and interpreting the results. In positivism studies the role of the researcher is limited to data collection and interpretation in an objective way. In these types of studies research findings are usually observable and quantifiable.

Positivism depends on quantifiable observations that lead to statistical analyses. It has been noted that as a philosophy, positivism is in accordance with the empiricist view that knowledge stems from human experience. It has an atomistic, ontological view of the world as comprising discrete, observable elements and events that interact in an observable, determined and regular manner.

Moreover, in positivism studies the researcher is independent from the study and there are no provisions for human interests within the study. Crowther and Lancaster, (2008) argue that as a general rule, positivist studies usually adopt deductive approach, whereas inductive research approach is usually associated with a phenomenology philosophy. Moreover, positivism relates to the viewpoint that researcher needs to concentrate on facts, whereas phenomenology concentrates on the meaning and has provision for human interest.

3.2 Research Design

Research design is defined as a framework for a researcher's methods or techniques to combine various research components in a reasonably logical manner to efficiently handle the research problem. It offers information on how" research can be carried out using a specific methodology. A list of research questions must be assessed by each researcher (Moazzam, 2014). In Bell *et al.* (2018), research design is defined as a blueprint for research undertakings that give maximum control to the factors affecting the validity of the finding. The research design refers to the overall study conception, including a description of all concepts and categories, the relationship proposal and data gathering and analysis methods (Sekaran and Bougie, 2016)

Philips& Burbides, (2000) states that the research is the process that test a theory so as to refine or a bandon .Information is collected based on the instruments the research aim at achieving the relationship between variables and being objective to eliminate bias in research.

The study employed an explanatory research design. Explanatory Research is conducted for a problem which was not well researched before, demands priorities, generates operational definitions and provides a better-researched model. According to Quinlan *et al.*, (2019) explanatory research design is research were researcher rather than creating the treatment, examines the effect of a naturally occurring treatment after it has occurred. On the other hand it tries to verify formulated hypothesis that refer to present situation in order to elucidate it (Bechhofer and Paterson,2012) It is actually a type of research design which focuses on explaining the aspects of your study in a detailed manner. The Explanatory research is not used to give us some conclusive evidence but helps us in understanding the problem more efficiently.

This research design is preferred because the data used in the study comprise of ratios that have been transformed into panels. The research design is suitable in studies where both panel data characteristics of the units being studied are required because it can support these. (Gujarati, 2003). Similarly to meet the objective of the study adequately explanatory research design was adapted since its design is relevant as it gives detailed description of the population and entail the use of secondary data (Bowen, 2009). Moreover the design helped in understanding, explaining, predicting and controlling the relationship between variables.

3.3 Study Area and Target Population

The study was conducted at the NSE located in Nairobi County. Nairobi is the capital and the largest city of Kenya. In 2006 the NSE initiated the automated trading systems which have resulted in high trading volumes. In the beginning of 2010, the NSE introduced the NSE All.-share index which is complementary to NSE 20 share index in an effort to provide investors with a comprehensive measure of the performance of the securities market.

Target population is defined as all the members of real or hypothetical set of people, events or objects which a researcher wishes to generalize the research study (Borg & Gall, 1989). It can also be defined as the entire group of individuals or objects to which researchers are interested in generalizing the conclusions. Moazzam (2014) indicated that a sample is some part of a larger body specially selected to represent the whole while sampling is then taking any portion of a population or universe as representative of that population or universe and sampling is the process by which this part is chosen. The population of the study comprised all the companies listed in Kenya's Nairobi Securities Exchange during the 10 years period from 2008 to

December 2017. In total, 65 firms formed for the study which are listed at Nairobi Securities Exchange.(NSE June,2018)

The data for the variables that was collected included; four independent variables (firm liquidity, firm leverage, dividend pay-out and capital expenditure), one dependent variable financial performance and one moderating variable board capital.

3.4 Inclusion and Exclusion Criteria

In this study the criterion for inclusion was based on companies listed under various categories at NSE, Kenya. Firms listed formed the unit of analysis since they meet all the listing requirement by NSE compare to the firms not listed. Besides, firms listed published their audited financial reports hence available to the general public. Thus, the target population were all the 65 listed firms at NSE in Kenya. The number of the firms listed at NSE has been increasing over the time, Therefore, since the study period covered ten years the inclusion criteria were based on all firms at NSE from 2008 to 2017 .Firms suspended or delisted were excluded. As a result, 40 firms for a period of ten years formed the unit of analysis (**See appendix II**).

3.5 Nature and The Type of Data

The study used secondary data collected from the annual report and audited financial statement which was sourced from the capital market authority and downloaded from websites, <http://www.cmarcp.or.ke/index.php/financial-reports-accounts> company website and <http://Africafiancials.com>. According to international accounting standards (IAS 32 and 39), firms must disclose their financial statement. The data was collected from the secondary data sources hence the adaption of document analysis research instrument

3.6 Data Collection Technique

Most scholarly inquiries are based on the data researcher set forth to provide evidence to support conclusion of studies (Zikmund,*et al.*, 2010) Ability to access and collect data is important as it plays a central role in scholarly inquiry (Leedy and Ormrod, 2010)

The study employed the use of secondary data. Secondary data is data which has been collected by individuals or agencies for purposes other than those of our particular research study. Documents are an important source of data in any area of investigation. Review of the documents shows that the researcher is aware of the available functions of research. Documents generally provide a source of data, which is permanent and available in a form that can be checked by others. Secondary data may be available which is entirely appropriate and wholly adequate to draw conclusions and answer the hypothesis or solve the problem. Secondary sources of information can yield more accurate data than that obtained through primary research

The secondary data was collected through the use of the data sheet. The data sheet collected the information relating to the firm liquidity, dividend pay-out, the firm leverage, capital expenditure, board capital and financial performance of the firms listed. The data sheet collected this information for a period of ten years that is from 2008 to 2017 from audited financial statement from NSE.

The data collection technique used were content/document analysis

3.6.1 Document analysis

Document analysis entails systematic review and evaluation of both printed and electronic documents. Document analysis provides secondary data which refer to those

collected for another primary purpose. The merit of using document analysis are that they are stable, exact, have the broader coverage, help researcher time and cost-effective, easily accessed especially if in public domain (Bowen, 2009). It is also vital as they provide supplementary research data other than primary, help to track changes and development, verify finding or evidence from other sources (Bowen, 2009). According to Oso and Onen, (2009) document analysis is an instrument for collecting secondary information therefore in the study document analysis was used because data being collected is secondary in nature. Corbetta, (2003) identified a number of advantages of the documents over other research methods. It is a non-reactive technique where the information given in the document is not subject to possible distortion as result of interaction between the researcher and the respondent. Hence the study achieve its objective by collecting data from secondary sources which was achieved by analyzing the content of audited financial reports of 40 listed firms at NSE (**See appendix III**)

3.6.2 Annual Reports

The annual reports of 40 firms were obtained for the period from 2008 to December, 2017 resulting in firm year observation of datasets of 400 over 10 years period. The annual report is a formal document published by companies and is used as a communication media to the public and therefore in this study, it is a sampling unit. Krippendorff (2018) defines sampling units as those parts of observed reality or each other. Data from annual reports were readily available, more reliable and regulated disclosures and its requirement under the company's act the public trading companies must publish their financial statements in accordance with international financial reporting standards. (IAS 32 and IAS 39) Annual reports data do not suffer response bias and where available has high reliability.

The annual reports which are a secondary data source as pointed by (Stanton,2002)were employed in the study to examine moderating effect of board capital on the relationship between financial flexibility and financial performance from firms listed in Nairobi Securities Exchange from 2008 to 2017.

3.7 Data Collection Procedure

The researcher first got approval from the institution that is Moi University authorizing data collection. The researcher sought permission from the National Commission of Science and Technology and Innovation (NACOSTI). When permission was granted Secondary data was extracted from audited financial statements and annual reports of individual firms during the ten years period (2008– 2017). The data obtained for all variables in each firm were organized in panels. According to Baltagi, Bratberg, and Holmås (2005) Panel data is suitable for longitudinal analysis because it provides both the time and cross-sections dimensions.

3.8 Data Analysis

The relevant data was transformed into ratios for the study variables in each firm for every year using excel program. Descriptive statistics such as measures of central tendency and measures of dispersion was used to summarize and profile the pattern in each firm,while sample maximum and minimum were also extracted.Descriptive statistical techniques, specifically the measures of central tendency,that is the mean, as well as the measures of dispersion, which is the standard deviation, minimums and maximums were used to check for trends and to describe the data. Inferential statistics were also used; these are statistical techniques for generalizing from a sample to a population (Zinkmund, Babin & Griffin, 2009), since studies are normally conducted on the sample or the subset of the study population. They are used to draw conclusions

about significant relationships between variables (Vanderstoep & Johnston, 2009). Furthermore, they are used to estimate the characteristics of the population from sample data, or to test various hypotheses about the relationship between different variables. O'Leary, (2004) further states that they allow assessing of the probability that an observed difference is not just a fluke or chance finding and are about conducting statistical tests that can show statistical significance

The Inferential statistics used in the study was Pearson moments correlation and hierarchical regression analysis. Correlation describes the strength and direction or linear dependence between two variables. Pearson moments correlation coefficients were used to check for associations between corporate governance mechanisms, CEO power and earnings management, where the coefficients ranged from between -1.0 to 1.0, that is, from a perfectly negative correlation, through no dependence, to a perfect positive correlation between the variables. Creswell (2003) asserts that the coefficient assumes that there is a linear relationship between the two variables and that the two variables are causally related which means that one of the variables is independent and the other is. In addition, panel regression analysis using STATA version 13 was employed to establish the nature and significance of the relationship between independent variables and dependent variable. Later the process was repeated with the moderating variable. Significance of individual explanatory variable on the dependent variable was carried out using t-test at 5% significance level. Joint significance of the hierarchical regression model was performed by means of F-values

Model Estimation for the Moderation Model

The study first determined the relationship between the independent and the dependent variable through the regression.

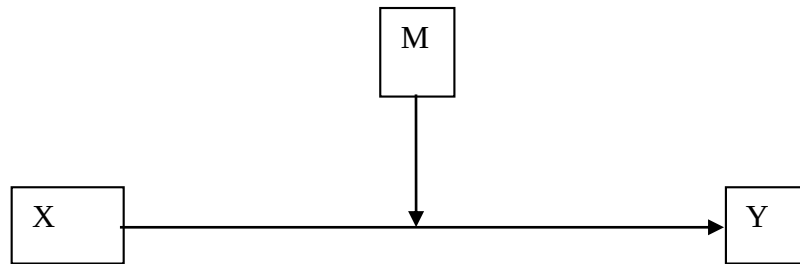


Figure 3. 1: Conceptual diagram

Source: (Hayes13) Model I

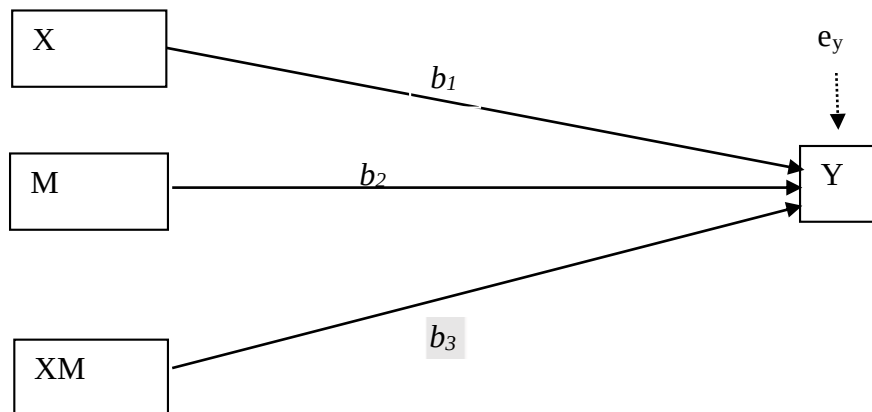


Figure 3. 2: Statistical Diagram 1

Source: Model 1(Hayes,2013)

Where;

X; Independent Variable

M; Moderating Variable

Y; Dependent Variable

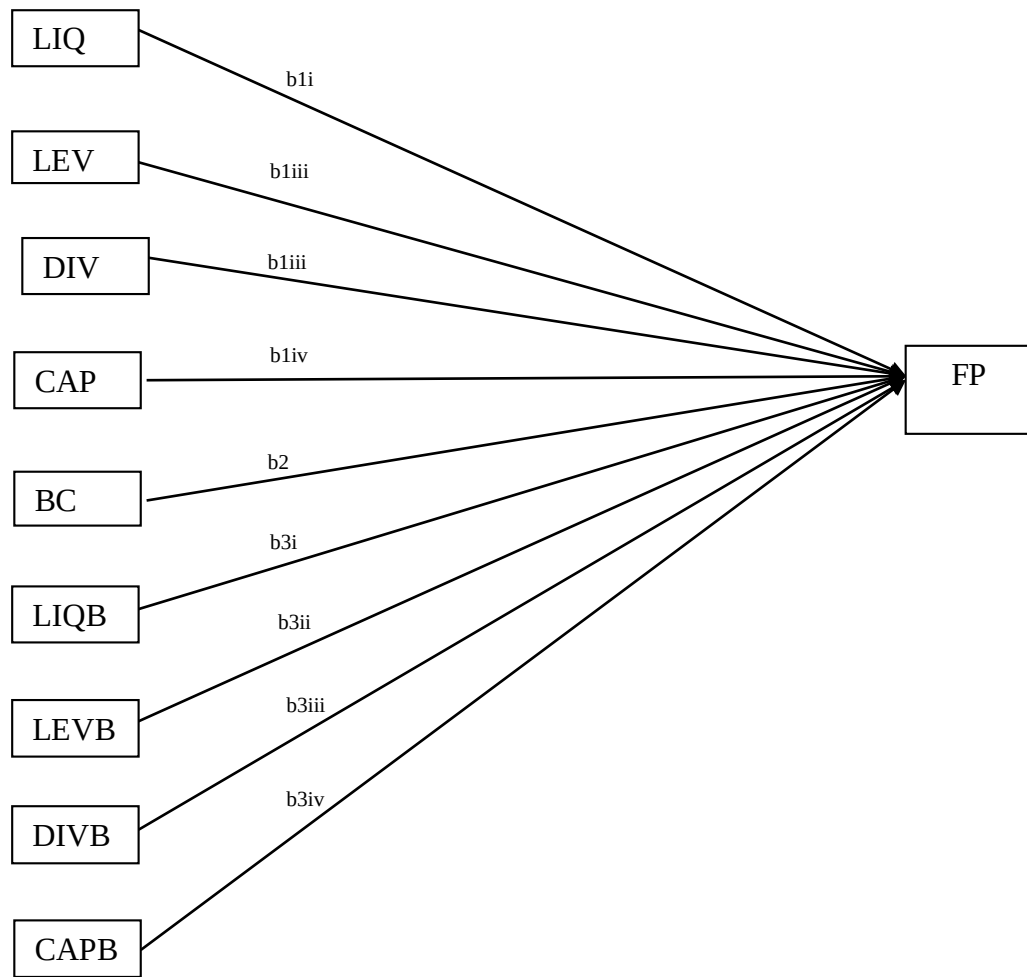


Figure 3. 3: Statistical Diagram 2

Source: Researcher, (2019)

3.8.1 Model Specification

The model specification was as follows:

$$FP_{it} = \beta_0 + \beta_1 FA_{it} + \beta_2 FS_{it} + \epsilon \dots \dots \dots 1$$

$$FP_{it} = \beta_0 + \beta_1 FA_{it} + \beta_2 FS_{it} + \beta_3 LIQ_{it} + \beta_4 LEV_{it} + \beta_5 DIV_{it} + \beta_6 CAP_{it} + \epsilon \dots \dots \dots 2$$

$$FP_{it} = \beta_0 + \beta_1 FA_{it} + \beta_2 FS_{it} + \beta_3 LIQ_{it} + \beta_4 LEV_{it} + \beta_5 DIV_{it} + \beta_6 CAP_{it} + \beta_7 BC_{it} + \epsilon \dots 3$$

$$FP_{it} = \beta_0 + \beta_1 FA_{it} + \beta_2 FS_{it} + \beta_3 LIQ_{it} + \beta_4 LEV_{it} + \beta_5 DIV_{it} + \beta_6 CAP_{it} + \beta_7 BC_{it} + \beta_8 LIQ_{it} * BC_{it} + \varepsilon \dots\dots\dots 4$$

$$FP_{it} = \beta_0 + \beta_1 FA_{it} + \beta_2 FS_{it} + \beta_3 LIQ_{it} + \beta_4 LEV_{it} + \beta_5 DIV_{it} + \beta_6 CAP_{it} + \beta_7 BC_{it} + \beta_8 LIQ_{it} * BC_{it} + \beta_9 LEV * BC_{it} + \varepsilon \dots\dots\dots 5$$

$$FP_{it} = \beta_0 + \beta_1 FA_{it} + \beta_2 FS_{it} + \beta_3 LIQ_{it} + \beta_4 LEV_{it} + \beta_5 DIV_{it} + \beta_6 CAP_{it} + \beta_7 BC_{it} + \beta_8 LIQ_{it} * BC_{it} + \beta_9 LEV * BC_{it} + \beta_{10} DIV * BC_{it} + \varepsilon \dots\dots\dots 6.$$

$$FP_{it} = \beta_0 + \beta_1 FA_{it} + \beta_2 FS_{it} + \beta_3 LIQ_{it} + \beta_4 LEV_{it} + \beta_5 DIV_{it} + \beta_6 CAP_{it} + \beta_7 LIQ_{it} * BC_{it} + \beta_8 LEV * BC_{it} + \beta_9 DIV * BC_{it} + \beta_{10} CAP * BC_{it} + \varepsilon_j \dots\dots\dots 7$$

Where:

FP; Financial performance

BC; Board Capital

LIQ; Firm liquidity

LEV; Firm Leverage

DIV; Dividend pay out

CAP; Capital expenditure

FA; Firm age

FS; Firm size

E; Random error term

β_0 ; Intercept

β ; beta coefficients

t; Time indices

i; Firm indices

3.9 Diagnostic Tests of Panel Data

Diagnostic tests to be carried out in this study are to check for existence of panel unit root Normality test, Autocorrelation, Multicollinearity, Heteroscedasticity, linearity test Fixed and Random effect test and was also carried out.

3.9.1 Panel Unit root test

The unit root test is a test for whether a time series variable is non-stationary and possesses a unit root. The null hypothesis is generally defined as the presence of a unit root and the alternative hypothesis is that there is no unit root for the series and that the series is stationary. The null hypothesis was tested using fisher-type unit test to find out if a unit root is present in auto regression. The test assumes a common autoregressive parameter for all panels. Each test performed by xtunitroot also makes explicit the assumed behavior of the number of panels and time periods.

Due to this characteristic, unit root processes are also called difference stationary. If the computed p value is lower than the significant level α , then the null hypothesis should be rejected and accept the alternative hypothesis. Time series data consist of observation that are considered to be random variables that can be described by some stochastic processes. Time series is only possible where the data is stationary. This means that the data must have statistical properties such as mean, variance and covariance that never vary with time. Hence important that one should first test a time series to see if it is stationary or no (Dwivedi and Subba,2011).In this study, the researcher used Fisher's unit root test in Stata is measured at 5% significant level. The rule of thumb is that null hypothesis states that the data has unit root while the alternative hypothesis is that the data is stationery. Unit root test has been conducted

using Fisher's unit root test based on augmented Dickey-Fuller tests. This test defined under the null hypothesis,

Ho: All panels contain unit roots

Ha: At least one panel is stationary

Decision criteria; Reject Ho if the p-values are less than the level of significance that is 0.05

3.9.2 Normality test

The study performed the Jarque-Bera test for normality. In addition skewness and kurtosis were used by Jarque and Bera, (1987) for the omnibus test. Jarque -Bera test have been discussed by many authors as an ideal test for Normality. Jarque-Bera follows the chi-squares distribution with two degree of freedom .Under the null hypothesis of normality the expected value of the statistic is two.

Normality test helps to determine how likely it is for a random variable underlying the data set to be normally distributed. There are several normality tests such as Skewness Kurtosis test, Jarque Bera test, Shapiro Wilk test, Kolmogorov-Smirnov test. The study incorporates the use of skewness/kurtosis test and Jarque-Bera test.

Skewness is a measure of the asymmetry of the probability distribution of a random variable about its mean. It represents the amount and the direction of skew. On the other hand, Kurtosis represents the height and sharpness of the central peak relative to that of a standard bell curve. Skewness/Kurtosis presents a test for normality based on skewness and another based on kurtosis and then combines the two tests into an overall test statistic.

Jarque-Bera test was also utilized to determine normality of research variables. In this test, if significance level is lower than 5% ($\text{Sig} < 5\%$), the null hypothesis is rejected at confidence level 95%. Test assumptions are as follows:

The hypothesis tested was:

Ho: Distribution is normal

Ha: Distribution is not normal

Decision Rule: Reject the *Ho* if the p-values are less than the level of significance

3.9.3 Multicollinearity test

Multicollinearity is a phenomenon in which two or more predictor variables in a multiple regression model are highly correlated, meaning that one can be linearly predicted from the others with a substantial degree of accuracy. The basic problem is multicollinearity results in unstable parameter estimates which make it very difficult to assess the effect of independent variables on dependent variables. It also make difficulty in differentiating the individuals effects of the explanatory variable and regression estimators may be biased in that they tend to have large variance (Murray,2006).If there is a perfect linear relationship among the explanatory variable the estimator for a regression model cannot be uniquely computed. Fixing multicollinearity is by removing highly correlated predictors from the model. If you have two or more factors with a high VIF, remove one from the model and by use of Partial Least Squares Regression (PLS) or Principal Components Analysis, regression methods that cut the number of predictors to a smaller set of uncorrelated components.

The primary concern is that as the degree of multicollinearity increases, the regression model estimates of the coefficients become unstable and the standard errors for the coefficients can get wildly inflated. The researcher used variance inflation factor (

Ongore, 2013) command to detect multicollinearity in the regression model. The procedure is to use VIF then estat VIF to produce a mean VIF. Hence this study variance inflation factors was tested to examine the level of correlation and according to (Nor, *et al.*, 2008; midi *et al.*, 2010) argued that the VIF score that exceeds 10 indicates the presence of multicollinearity. As a rule of thumb, a variable whose VIF values are greater than 10 may merit further investigation (Gujarati, 2007). when VIF is between 1-5 then we conclude that the predictors are moderately correlated but when VIF is greater than 5 then we conclude that the predictors are highly correlated (Daoud, 2017)

3.9.4 Heteroscedasticity test

Heteroscedasticity refers to the circumstance in which the variability of a variable is unequal across the range of values of a second variable that predicts it. If the errors have constant variance, the errors are called homoscedastic. Typically, residuals are plotted to assess this assumption. Standard estimation methods are inefficient when the errors are heteroscedastic or have non-constant variance. Other option available is to use the Breusch – Pagan test/cook-weisberg, which is designed to detect any linear form of heteroscedasticity. The test is done by running a regression model and the said test is Lagrange multiplier test that bases that the residuals are normally distributed with K degree of freedom. Thereafter the command “stat hottest” is used. The null hypothesis for Breusch- Pagan test is that the error variances are all equal while the alternative hypothesis is that the error variances are multiplicative function of one or more variables. The rule in establishing heteroscedasticity is when the requirement of a constant variance is violated. The null hypothesis for the test is homoscedasticity, and alternative hypothesis suggests heteroscedasticity

H0: Error variance is homoscedasticity.

H1: Error variance is heteroscedasticity.

Decision rule; Reject the H_0 if the p-values are less than the level of significance.

3.9.5 Auto correlation test

The term autocorrelation may be defined as correlation between members of a series of observations ordered in time [as in time series data] or space [as in cross-sectional data]. In the regression context, the classical linear regression model assumes that such autocorrelation does not exist in the disturbances u_i . Symbolically, $E(u_i u_j) = 0 \text{ if } i \neq j$. (Gujarati, 2004) Put simply, the classical model assumes that the disturbance term relating to any observation is not influenced by the disturbance term relating to any other observation. The linear Regression Model main assumptions are that the covariance between the error term over time is equal to zero, or the error terms are not associated with each other (Brooks, 2010). However when the problems are correlated it creates the problem of autocorrelation or serial correlation, which leads to making the standard error biased. When a period of analysis is more than ten years the cases of autocorrelation are suspected to arise.

The graphical method is commonly used to judge the presence of autocorrelation. But formal statistical tests required to apply are tests such as Durbin-Watson, Breusch-Godfrey and Wooldridge test are the commonly used tests in time series analysis in order to detect autocorrelation. The rule of thumb for autocorrelation is between 1.50 and 2.50 or if the probability value is greater than 0.05, it indicates the presence of autocorrelation. The researcher checked for autocorrelation by doing the following: The command to be applied on financial flexibility elements using Wooldridge test is: `xtserial Firm Liquidity, Firm Leverage, Dividend Pay Out and Capital Expenditure, output`. If the

output shows Prob>F value lower than the critical value of 5%, then we fail to reject null hypothesis and conclude that there is no first order auto correlation in the panel data.

Rule of Auto-correlation test

H₀: The residuals are independent,

H_a: The residuals are inter-dependent,

P value >0.05 fail to reject null hypothesis,

According to Wooldridge (2002), serial correlation is present when P-value is less than 5% significance level.

3.9.6 Linearity test

Linearity refers to the degree to which the change in the dependent variable is related to change in the independent variables (Hair, *et al.*, 2010). Linearity between the dependent variable and each independent variable was tested using coefficient of determination (R^2) and ANOVA test ((F stat). That is between the independent variable (LIQ, LEV, DPO, CE and BC) and dependent variable (FP). The goal was to assess the strength of linear relationships among variables. This means that the significant linear relationship indicates that the independent variables can be used to predict the behavior of Financial Performance. A p-value greater than 0.05 for linearity means that there is no linear relationship.

3.9.7 Fixed effect model and Random effect model

The Hausman test evaluates the consistency of an estimator when compared to an alternative, less efficient, estimator which is already known to be consistent. It helps one evaluate if a statistical model corresponds to the data. Hausman basically tests

whether the unique errors are correlated with the regressors while the null hypothesis is that they are not correlated. In this study, Hausman test was used to differentiate between fixed effects model [FE] and random effects [RE] model in the panel data. Fixed effects (FE) was used whenever one is interested in analyzing the impact of variables that vary over time, and it explores the relationship between predictor and outcome variables within an entity. Random effects (RE) model unlike the fixed effects model, the variation across entities is assumed to be random and uncorrelated with the predictor or independent variables included in the model (Greene, 2008)

The panel data was analyzed using the fixed –effect model and random –effect model. The fixed –effect model is used when controlling for omitted variables that differ between individuals but are constant over time. In addition, if some omitted variable might be constant over time, but differ between individuals, and others might be fixed between individuals but vary over time, then the random-effect model may be of help in taking the two types into account. The Random-effect model would be appropriate if the data are representative of a sample rather than entire population because the individual effect term can be random outcome rather than a fixed parameter.

In order to compare the usefulness of these models, three test can be run .First, fixed effect were tested by the f test and null hypothesis all individuals effects terms except one are zero was rejected at a 0.1%significance level. This suggests that fixed effect model is better than pooled OLS model. Secondly, random-effect were examined by the Lagrange multiplier test and null hypothesis cross-sectional variance components are zero was rejected at 0.1% significance level. This argues in favor of random effect model against the fixed effect method (Lee,2008)

Random effects model is preferred under the null hypothesis due to higher efficiency while under the alternative fixed effects is at least consistent and thus preferred. To establish whether to use a fixed effect or random effect model, the researcher run fixed effects and save then estimates and again run the random model and save the estimates then perform the test. If the p-value is significant at >0.05 then use fixed effects, if not use random effects.

The researcher used Stata to handle panel data by using the command Xtset to set the data and xtreg to run fixed/random effect.

H0: Random effect model is appropriate

H1: Fixed effect model is appropriate

Decision Rule ;Reject the *Ho* if the p –values are less than the level of significance

3.10 Measurement of Variables

3.10.1 Dependent Variable Financial Performance

A dependent variable is a process outcome that is predicted or explained by other variables. In this study, the dependent variable was financial performance(Yim *et al.*, 2004).

A firm's financial performance is measured in monetary terms. A firm financial performance is reflected in its return on investment, return on assets, market value added among others. Profit is the ultimate goal of commercial banks. To measure the profitability of firms there are variety of ratios used of which Return on Asset (ROA). Return on Equity (ROE) and Net Interest Margin(NIM) are the major ones (Murthy & Mouritsen, 2011). ROE is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholder equity invested or found on the balance sheet. ROE is what the shareholders look in return for their investment. ROA

is a ratio of income to its total asset (Khrawish, 2011). In this study, ROA was used as the measure of financial performance for the firms.

3.10.2 Independent Variable Financial Flexibility

In general, financial flexibility is considered as a degree of capacity in a firm that can mobilize their financial resources for reactive activities to maximize the value of firm. Theoretical concepts of accounting standards regarding financial flexibility are as follows: the firm's ability based on effective actions to change the amount and timing of cash flows, therefore, an entity would be able to react in confronting with unexpected events and opportunities

Financial flexibility is posed in two general forms firm leverage and firm liquidity and some countries try to maintain financial flexibility by the use of policies related to maintenance of cash flows like the dividend pay-out and capital expenditure . And others with a conservative debt policy and based on having excess debt capacity, adopt this policy. Measurement methods were offered for financial flexibility. Based on the view of (Daniel *et al.*, 2008) methods of measurement for financial flexibility is as follows: The firm leverage is the amount of debt while firm liquidity is current asset over current liabilities on the other hand capital expenditure is measure interms of asset value (sangmi,2010) while dividend payout is dividend paid over net income Welch, (2009).

3.10.3 Moderating variable Board capital

A board needs sufficient ability in the form of relevant experience to make the best decisions for the firm. There are two key elements of board capital : human capital, defined as context-specific knowledge and skills obtained through work experience;

and social capital defined as the resources accessible through the network of relationships possessed by an individual or a social unit (Hillman and Dalziel, 2003).

Board capital refer to the accumulative experience and education level of the board members in the measurement of the board capital in this study the board capital was extracted from (Gitonga,2015) who referred board capital as the expertise the board bring in decision making that include both experience and education level

3.10.4 Control Variables

To eliminate the effects of confounding variables, the study included two control variables (firm size measured interms of natural logarithm of total asset; firm age was measured by the number of years that the firm has been in operation). Firm size and age have long been considered an important exogenous control variable to examine a range of organizational issues (Ramaswamy 2001; Jermias 2008; Ebaid 2009).firm size has also been treated as control variable in various studies (Phung & Mishra,2016 (krivokapic *et al.*,2017;(Nzioka,2017);(Salma&Hussain,2018).like firm size,firm age has also been controlled by most researches (Oyekunle Oyewobi,*et al.*,20130;(Doaei *et al.*,2014);(Phung&Mishra,2016)in this study it is assumed that large firms may have higher flexibility and also the aged firms compared to small size firm and those on early growth .Hence the firm size and age where control and measured as follows

Firm size-Natural logarithm of firms total asset

Firm age =Number of years since the firm where listed

Table 3. 1: Summary of Measurement of Variables

Variable	Measurement	Author
Firm Liquidity	Capital Requirements(CA/CL)	Daniel <i>et al.</i> ,2008 Ghosh&Maji Mohamed,et al 2013,Sur <i>et al</i> ,2014,Saldanli,2012
Firm Leverage	Amount of Debt (debt / equity)	Daniel <i>et al.</i> , 2008, Smith (2002) Rajan; Zngales,2013
Capital Expenditure	Asset Value Net increase in PPE + Depreciation Expense)	Sangmi (2010) Lev and Thiagrajan(2013)
Dividend Pay – Out	Dividend paid over Net income	Welch (2009) Ross, Westerfield & Jaffe(1999)
Financial performance	ROE (Income/Equity)	Busch <i>et al.</i> , 2015).Khrawish,2011.
Board Capital	Experiences = Total Working Yrs / Board Size Education level = Cumulative Education Level / Board Size	Gitonga, (2015) Hillman & Dalziel,2013, Nahapiet & Ighoshal,2018)
Control	Size= defined as the natural log (Ln) of total assets	Leaven <i>et al</i> , (2014) (Phung & Mishra, 2016 (Krivokapic <i>et al.</i> , 2017; Nzioka, 2017); Salma & Hussain, 2018, Lehn <i>et al.</i> ,2009)
	Age=No years in operation	Yasuda (2005) (Ramaswamy 2001; Jermias 2008; Ebaid 2009). Gregory <i>et al.</i> , 2005)

Source; Researcher (2020)

The moderation model tested whether the prediction of a dependent variable, Y (Firms financial Performance), from an independent variable, (Financial Flexibility), differs across levels of the moderating Variable, M (Board capital). The moderator variable is expected to affect the strength and/or direction of the relation between a predictor and an outcome: enhancing, reducing, or changing the influence of the predictor. Moderation effects were tested with multiple regression analysis, where all predictor variables and their interaction term are centered prior to model estimation to improve interpretation of regression coefficients.

3.11 Ethical Considerations

Ethical considerations in research are critical. Ethics are the norms or standards for conduct that distinguish between right and wrong. They help determine the difference between acceptable and unacceptable behaviors (Burgess, 1989). Ethical is the philosophy of relating to the study of ethics and or morally approvable when referring to an action that affects others. The main ethical consideration in this study were informed consent, plagiarism, sharing of the study finding. To ensure that the study complies with the ethical standards of research, permission to conduct the research was sought from the respective authorities. A full disclosure of all the activities concerning the study was provided to the authorities. A letter of introduction was also obtained from the Moi University. Permits and permission was sought from the National Council for Science, Technology and innovation (NACOSTI) see also (Appendix vi) and since Nairobi Securities Exchange are public limited companies, information relating to their financial statement are available to the public on the company website. The outcome of the study were reported objectively and no part of the study was distorted to suit any personal gains. To avoid plagiarism, sources of all ideas, findings and other information that are not of the author were acknowledged. The author were duly recognized both within the text and main reference section.

3.12 Limitation of the Study

The study offers a significant contribution to scholars and practical contribution. However the study is subject to limitation, First the study sought to determine the relationship between the financial flexibility and financial performance of listed companies in Kenya and later the study examine the interaction of board capital in the relationship between financial flexibility and financial performance of listed companies in Nairobi Securities Exchange and hence it was limited to listed firms only and also

the research was limited to one country that is Kenya. Secondly this research was done on listed firms only hence firms not listed was excluded .This study can also be done in other countries with different economic levels.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATIONS.

4.1 Introduction

The main objective of the study is to determine if board capital has an interaction on the relationship between financial flexibility and financial performance of firms listed at Nairobi Securities Exchange in Kenya. The results presented here are organized under three key sections: descriptive statistics, the Fixed effects and Random effects regression models and the moderation results.

4.2 Descriptive Statistics

The sample was drawn from 65 firms listed in NSE and the study unit of enquiry was published audited financial statements or audited annual reports of the firms listed in NSE Kenya. However after consideration of the companies deregistered, with incomplete report and suspended using inclusion and exclusion criteria only 40 firms were found with complete data hence forms the unit of analysis with 400 observation. Ultimately, the findings of the descriptive analysis are interpreted and discussed since descriptive statistics gives the synopsis of the panel data set under the study. This paves the way for hypotheses test and moderation test.

4.2.1 Descriptive Results of Study Variables

The summary statistics for firm performance, liquidity, leverage, capital expenditure, dividends pay-out, board capital, firm age and firm size are presented in table 4.1. Findings showed that the return on assets was at a mean ratio of 0.25. More findings revealed that liquidity levels were at an overall mean of 0.91 while leverage was at a mean of 0.25. The average capital expenditure is 0.25. The dividends paid out to shareholders relative to the company's net income were at a mean of 0.27. Also, board

capital was at a mean of 4.58 with the firm size at a mean of 7.10. Finally, the firms listed at NSE have been in operation for an average of 57 years (mean = 57.43).

Table 4. 1: Descriptive Results of Study Variables

Stats	N	Min	max	p50	Mean	kurtosis	Skewness
ROA	400	-0.27	0.10	0.07	0.25	395.26	19.82
LIQ	400	0.05	10.52	0.70	0.91	36.96	4.59
LEV	400	-70.77	7.77	0.19	0.25	366.51	-18.69
CE	400	0.01	0.95	0.17	0.25	2.58	0.88
DPO	400	0.01	0.74	0.27	0.27	2.80	0.32
BC	400	2.25	9.64	4.50	4.58	5.52	0.95
FS	400	3.79	11.16	7.24	7.10	4.57	-0.52
FA	400	3.00	138.00	53.00	57.43	2.55	0.42

Key=ROA= Return on Asset (Financial Performance), LIQ= Firm liquidity, LEV =Firm leverage, CE= capital expenditure, DPO= Dividends pay out, BC = board capital, FA = Firm age, FS = Firm size

4.3 Test of Variables Trends across the Years

4.3.1 Firm Liquidity

Liquidity position relates to the ability of the company to meet short term obligation as and when they arise. It is considered the most accurate method as cash used to pay off dividends is subtracted, thus giving a truer picture of the operating cash flow. Basing on the results in table 4.2, the liquidity levels were highest in 2017 (mean = 1.25) and lowest in 2008 (mean = 0.64). The firms have high liquidity levels that could facilitate financial performance. Finally, liquidity exhibited a trend across the period of 2008 to 2017 ($z = 3.66$, $p < 0.05$).

Table 4. 2: Firm Liquidity

	Mean	p50	Std	z	Prob > z
2008	0.64	0.60	0.40	3.66	0
2009	0.75	0.65	0.63		
2010	0.82	0.65	0.78		
2011	0.70	0.66	0.44		
2012	0.79	0.77	0.43		
2013	0.80	0.75	0.47		
2014	0.91	0.85	0.61		
2015	1.30	0.73	1.86		
2016	1.14	0.80	1.17		
2017	1.25	0.84	1.10		
Total	0.91	0.70	0.92		

4.3.2 Firm Leverage

Leverage represents a company's ability to meet its obligations. Profitable firms tend to borrow more since their repaying capacity is guaranteed; hence leverage has also been associated with profitability (Bashir & Hassan, 2003). As well, a firm with high leverage means large fixed payments for external financing, which indeed is a substitute for the dividend payments. In light of the preceding, the study deemed it important to establish firm leverage among the firms listed in NSE for a period ranging from 2008 to 2018. The use of debt financing was highly evidenced in 2010 (mean = 0.55) though it declined to its lowest in 2017 (mean = -1.24). Notably, firm leverage did not exhibit a trend over the years though it is clear that the firms listed in NSE borrowed more in 2010 ($z = -0.21$, $p > 0.05$).

Table 4. 3: Firm Leverage

Year	Mean	p50	Std	z	Prob > z
2008	0.36	0.15	0.56	-0.21	0.831
2009	0.47	0.33	0.52		
2010	0.55	0.18	0.91		
2011	0.31	0.18	0.38		
2012	0.40	0.16	0.58		
2013	0.49	0.19	0.81		
2014	0.51	0.19	0.90		
2015	0.30	0.19	0.42		
2016	0.40	0.24	0.50		
2017	-1.24	0.20	11.35		
Total	0.25	0.19	3.63		

4.3.3 Dividend pay-out

Dividend pay-out is the amount of cash paid to shareholders expressed as a percentage of earnings per share (Ross, Westerfield & Jaffe, 1999). It is upon the firm's management to decide how much money is distributed among shareholders and how much is stored in the format of annual profits. The overall efficiency of the shareholders arises from the factors of decision making related to received stocks' profit and capital gains. Thus, dividends pay-out is considered as an important element in the firm's return on investment. As such, the study found it necessary to establish the dividend pay-out to shareholders among the firms listed in NSE for a period ranging from 2008 to 2017. Basing on the findings in table 4.4, the highest dividend pay-out was in 2017 (mean = 0.34) while the lowest was in 2011 (mean = 0.23) and 2015 (mean = 0.23). There was limited variation in the dividend pay-outs over the study period. Finally, dividend pay-out did not elicit a trend over the period ranging from 2008 to 2017 ($z = 1.65$, $p > 0.05$).

Table 4. 4: Dividend pay-out

Year	Mean	p50	Sd	z	Prob > z
2008	0.25	0.27	0.18	1.65	0.099
2009	0.27	0.27	0.16		
2010	0.29	0.30	0.16		
2011	0.23	0.22	0.13		
2012	0.25	0.27	0.18		
2013	0.25	0.25	0.16		
2014	0.29	0.30	0.16		
2015	0.23	0.26	0.12		
2016	0.27	0.27	0.16		
2017	0.34	0.39	0.20		
Total	0.27	0.27	0.16		

4.3.4 Capital expenditure

Capital expenditures arise when a business spends money on buying fixed assets or adding value to an existing fixed asset to a useful life that extends beyond the taxable year (McConnell and Muscarella, 1985). Capital expenditures are carried out to benefit economic resources or assets that are used to generate revenue. Therefore, it is crucial to understand the link between the asset acquisition process and the impact of this process on financial performance. The findings on capital expenditures among the firms listed in NSE for a period ranging from 2008 to 2017 are illustrated in table 4.5. The capital expenditures ranged from a low of 0.22 in 2011 to a high of 0.29 in 2013. Finally, capital expenditure did not exhibit a trend over the period ranging from 2008 to 2017 ($z = 0.35$, $p > 0.05$).

Table 4. 5: Capital Expenditure

Year	Mean	p50	Sd	z	Prob > z
2008	0.24	0.12	0.27	0.35	0.723
2009	0.24	0.09	0.27		
2010	0.28	0.23	0.24		
2011	0.22	0.08	0.25		
2012	0.24	0.12	0.27		
2013	0.29	0.23	0.25		
2014	0.28	0.23	0.24		
2015	0.26	0.20	0.25		
2016	0.24	0.09	0.27		
2017	0.25	0.13	0.27		
Total	0.25	0.17	0.26		

4.3.5 Financial Performance (ROA)

Financial performance is one of the important financial information that is considered during decision-making. For investors to make decisions about their investments, they rely on financial information contained in the financial statements, especially on the reported profit. ROA, an indicator of what management has accomplished with the given resources (assets) is directly related to management's ability to efficiently utilize firms' assets, which ultimately belong to shareholders. A lower return on assets will indicate inefficiency hence poor financial performance. Consequently, the study found it necessary to establish the performance of the firms listed in the NSE for the period ranging from 2008 to 2017. Basing on the findings in table 4.6, the firms elicited high performance in 2013 (mean = 1.49) and the lowest performance in 2017 (mean = 0.07). However, financial performance did not exhibit a trend over the period ranging from 2008 to 2017 ($z = -1.29$, $p > 0.05$).

Table 4. 6: Financial Performance (ROA)

Year	Mean	p50	Sd	z	Prob > z
2008	0.10	0.07	0.12	-1.29	0.20
2009	0.09	0.06	0.12		
2010	0.14	0.11	0.14		
2011	0.15	0.07	0.19		
2012	0.10	0.07	0.12		
2013	0.49	0.13	8.09		
2014	0.14	0.11	0.14		
2015	0.13	0.06	0.18		
2016	0.09	0.05	0.12		
2017	0.07	0.04	0.11		
Total	0.249102	0.07	2.565374		

4.3.6 Board capital

A board needs sufficient ability in the form of relevant experience to make the best decisions for the firm. There are two key elements of board ability: human capital, defined as context-specific knowledge and skills obtained through work experience; and social capital defined as the resources accessible through the network of relationships possessed by an individual or a social unit (Hillman and Dalziel, 2003). Consequently, the study sought to establish the board capital of firms listed in NSE. The period of interest was between 2008 to 2017. From the results in table 4.7, board capital ranged from a low of 3.98 in 2013 to a high of 5.14 in 2011.

Table 4. 7: Board capital

Year	Mean	p50	Sd	z	Prob > z
2008	4.87	4.91	1.03	4.56	
2009	4.90	4.93	1.01		
2010	4.97	5.00	1.50		
2011	5.14	5.19	1.05		
2012	5.05	5.05	0.62		
2013	3.98	3.95	0.52		
2014	4.06	4.03	0.97		
2015	4.10	4.05	0.51		
2016	4.38	4.31	0.67		
2017	4.34	4.18	0.67		
Total	4.58	4.50	0.99		

4.4 Diagnostics Statistics

4.4.1 Unit root test

Reliability of research variables should be examined before analyzing and testing hypotheses. The reliability of the research variables means that the mean and variance of variables has been constant during different years. As a result, using these variables in the model does not cause False-regression. According to the theory that if our data contains time-series data sets, the first step is to test whether if the data set is stationary on a particular type of testing. Meanwhile, regarding the number of observation which is the time series data set that is used in this study only ten years (annually data), meaning that it is sufficient number to test the stationary. Unit root test has been conducted using Fisher's unit root test based on augmented Dickey-Fuller tests. This test defined under the null hypothesis,

Ho: All panels contain unit roots

Ha: At least one panel is stationary

Results of variable reliability test in table 4.8 shows that the p-value of all variables is less than 5%, and the research variables are reliable; therefore, the null hypothesis of having unit root is rejected.

Table 4. 8: Fisher type for testing unit root

			Statistic	p-value
LIQ	Inverse chi-squared(80)	P	224.67	0.00
	Inverse normal	Z	-7.35	0.00
	Inverse logit t(204)	L*	-8.45	0.00
	Modified inv. chi-squared	Pm	11.44	0.00
LEV	Inverse chi-squared(78)	P	246.98	0.00
	Inverse normal	Z	-7.15	0.00
	Inverse logit t(189)	L*	-9.50	0.00
	Modified inv. chi-squared	Pm	13.53	0.00
DPO	Inverse chi-squared(80)	P	285.69	0.00
	Inverse normal	Z	-10.22	0.00
	Inverse logit t(199)	L*	-11.71	0.00
	Modified inv. chi-squared	Pm	16.26	0.00
CE	Inverse chi-squared(80)	P	212.21	0.00
	Inverse normal	Z	-8.02	0.00
	Inverse logit t(204)	L*	-8.41	0.00
	Modified inv. chi-squared	Pm	10.45	0.00
BC	Inverse chi-squared(80)	P	138.21	0.00
	Inverse normal	Z	-4.07	0.00
	Inverse logit t(204)	L*	-4.27	0.00
	Modified inv. chi-squared	Pm	4.60	0.00
FS	Inverse chi-squared(80)	P	204.42	0.00
	Inverse normal	Z	-5.54	0.00
	Inverse logit t(204)	L*	-6.91	0.00
	Modified inv. chi-squared	Pm	9.84	0.00
FA	Inverse chi-squared(80)	P	309.67	0.00
	Inverse normal	Z	-4.02	0.00
	Inverse logit t(204)	L*	-9.40	0.00
	Modified inv. chi-squared	Pm	18.16	0.00

4.4.2 Normality test

Normality test helps to determine how likely it is for a random variable underlying the data set to be normally distributed. There are several normality tests such as Skewness Kurtosis test, Jarque Bera test, Shapiro Wilk test, Kolmogorov-Smirnov test. The study incorporates the use of Skewness /Kurtosis test and Jarque-Bera test.

Skewness is a measure of the asymmetry of the probability distribution of a random variable about its mean. It represents the amount and the direction of skew. On the other hand, Kurtosis represents the height and sharpness of the central peak relative to

that of a standard bell curve. Skewness/Kurtosis presents a test for normality based on Skewness and another based on kurtosis and then combines the two tests into an overall test statistic.

The results of Skewness/Kurtosis in Table 4.9 show the number of observations which are 400 and the probability of Skewness which is 0.0695 implying that Skewness is normally distributed (p-value of Skewness > 0.05). Similarly, 0.3534 Pr(Kurtosis) indicates that kurtosis is asymptotically distributed (p-value of kurtosis > 0.05). Finally, chi (2) is 0.086 which is greater than 0.05 meaning that the null hypothesis cannot be rejected. Therefore, according to SK test for normality, residuals show normal distribution.

Jarque-Bera test was also utilized to determine normality of research variables. In this test, if significance level is lower than 5% (Sig< 5%), the null hypothesis is rejected at confidence level 95%. Test assumptions are as follows:

H0: Data distribution is normal.

H1: Data distribution is not normal.

For the Jarque-Bera Test, if the p-value is lower than the Chi (2) value then the null hypothesis cannot be rejected. It can therefore be concluded that the residuals are normally distributed. From Table 4.9, the chi (2) is 0.0612 which is greater than 0.05 meaning that the null hypothesis cannot be rejected. The implication is that there is no violation of the normal distribution assumption of error terms as the residuals are coming out to be normal.

Table 4. 9: Skewness/Kurtosis and Jarque-Bera test

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adjchi2(2)	Prob>chi2
Residuals	400	0.0695	0.3534	7.29	0.086
. jb residuals					
Jarque-Bera normality test:					
7.705 Chi(2)	0.0612				

Jarque-Bera test for Ho: normality:

Source: Research Data, 2020

4.4.3 Multicollinearity

The use of multivariate hypothesis test is based on the assumption of no significant multicollinearity between the explanatory variables. Thus, to investigate the existence of multicollinearity, the variance inflation factors (VIFs) for each of the explanatory variables are computed as depicted table (4.10). The variance inflation factor (VIF) is commonly used to identify the presence of multicollinearity. If VIF is bigger than 10 this means that there is a problem with multicollinearity (Gujarati, 2003). The mean VIF as reported from table (4.10) is 1.340, which is lower than ten (10), a number that is used as a rule of thumb as an indicator of multicollinearity problems (Field, 2000). Thus, these results support the lack of presence of multicollinearity in the research model.

Table 4. 10: Multicollinearity

Variable	VIF	1/VIF
LIQ	1.590	0.629
BC	1.570	0.636
DPO	1.340	0.748
FS	1.300	0.771
LEV	1.280	0.779
FA	1.140	0.879
CE	1.130	0.884
Mean VIF	1.340	

4.4.4 Heteroscedasticity

According to Williams (2015), if error terms do not have constant variance, they are said to be heteroscedastic. On the other hand, when the variance of the error term is constant, it is called homoscedasticity. The study used Breusch and Pagan Lagrangian Multiplier test to identify the presence of heteroscedasticity. The null hypothesis for the test is homoscedasticity, and alternative hypothesis suggests heteroscedasticity. Since the p values are 0.37 we accept the null hypothesis. Thus, the model does not suffer from the problem of heteroscedasticity. Further, Cameron & Trivedi's decomposition of IM test indicated that the probability value of the chi-square statistic is more than 0.05. Therefore, the null hypothesis of constant variance cannot be rejected at 5% level of significance. Hence no presence of heteroscedasticity in the residuals. This implies that null hypothesis failed to be rejected and conclude that the variance of residuals was homoscedastic.

Table 4. 11: Test for Heteroscedasticity

Breusch-Pagan / Cook-Weisberg test			
	For	heteroskedasticity	
Ho: Constant variance			
Variables: residuals			
chi2(1)	=	0.37	
Prob > chi2	=	0.5415	
Source	chi2	Df	P
Heteroskedasticity	19.52	35	0.984
Skewness	2.54	7	0.9237
Kurtosis	1.22	1	0.2689
Total	23.28	43	0.9939

Source: Research Data, 2020

4.4.5 Autocorrelation

One of the fundamental assumptions of Linear Regression Model is that the covariance between the error terms over the time is equal to zero, or the error terms are not

correlated with each other (Brooks, 2010). If, however, the error terms are correlated, it creates the problem of autocorrelation or serial correlation, which leads to making the standard error biased. Hence, the standard OLS estimators no longer remain the minimum variance ones. Serial correlation causes the standard errors of the coefficients to be smaller than they actually are and higher R-squared. This follows that a diagnostic test is required to check for the presence of serial correlation after each standard OLS regression of the analysis. The graphical method is commonly used as a first-hand method to judge the presence of autocorrelation. But to confirm the presence of autocorrelation a formal statistical test is required to be applied. This study applied Wooldridge test to test for autocorrelation. From the findings in table 4.12, null hypothesis of no serial correlation cannot be rejected at 5% level of significance.

Table 4. 12: Autocorrelation Test

Wooldridge test for autocorrelation	In panel	data
H0: no first-order autocorrelation		
F(1, 39) = 0.001		
Prob > F = 0.9798		

Source: Research Data, 20120

4.4.6 Linearity Test

To test linearly the study used coefficient of determination (R^2) and ANOVA test ((F stat). based on the findings in Table 4.13, the p values for F stat were all less than 0.05 indicating linearity between the independent variable (LIQ, LEV, DPO, CE and BC) and dependent variable (FP). Further, findings showed that board capital explained the highest (21.4%) contribution in FP with 21.4% variation ($R^2=.214$) followed by leverage explaining 18.4% variation in FP ($R^2=.184$)

Table 4. 13: Linearity Test

	F stat	Prob > F	R-squared	Adj squared	R- Root MSE
FP*LIQ	85.470	0.000	0.177	0.175	1.287
FP*LEV	89.600	0.000	0.184	0.182	1.283
FP*DPO	12.330	0.000	0.030	0.028	1.392
FP*CE	26.970	0.000	0.064	0.061	1.373
FP*BC	108.390	0.000	0.214	0.212	1.257

4.5 Model misspecification

Assessment of diagnostic properties of the estimated model continues with testing omitted variable bias using the Ramsey RESET test. RESET is a general test for the following types of specification errors: • Omitted variables; i.e. does not include all relevant variables. • Incorrect functional form; indicating that some or all variables should be transformed to logs, powers, reciprocals or in some other way. • Correlation between X and the error term, which may be caused, among other things, by measurement. Error in, simultaneity or the presence of lagged values and serially correlated disturbances (Gujarati, 2004 p.282). In essence, under such specification errors, least squares estimators will be biased and inconsistent, and conventional inference procedures will be invalidated. The Ramsey RESET test does not reject the null hypothesis, at any conventional level of significance (1%, 5% and 10%), that the model does not have a problem of potential omitted variable bias ($p=0.1149$). The results of the Ramsey RESET test show a p-value higher than the threshold of 5% ($(P>F) = 10.10 > 0.05$). So, we fail to reject the null hypothesis and we can conclude that there is no omitted variables bias in our results.

Table 4. 14: Model Specification

Ramsey RESET test using powers of the fitted values of ROA	
Ho: model has no omitted variables	
F(3, 386) =	10.10
Prob > F =	0.1149

4.6 Correlation Results

Correlation is a method of assessing a probable two-way linear association between two measurable variables. The extent of "correlation" is measured by a statistic called the correlation coefficient, which represents the strength of the putative linear association between the two selected variables. In other words, it is a statistic representing how closely two variables co-vary; it is a dimensionless quantity whose value can vary from -1 (perfect negative correlation) through 0 (no correlation) to $+1$ (perfect positive correlation).

From Table 4.15, the findings revealed that there was a positive correlation between liquidity and financial performance ($r = 0.420$, $p < 0.01$). The correlation between leverage and financial performance is negative ($r = -0.429$) and significant at $p < 0.01$. Furthermore, there was positive correlation between dividend pay-out and financial performance ($r = -0.174$, $p < 0.01$). Capital expenditure had a positive correlation ($r = 0.252$) with financial performance, the relationship was significant at $p < 0.01$. The findings also revealed that board capital was positively correlated with financial performance ($r = 0.463$, $p < 0.01$). In addition, firm size had a negative correlation with financial performance ($r = -0.230$, $p < 0.01$). However, there was no significant correlation between firm age and financial performance ($r = -0.095$, $p > 0.01$).

Table 4. 15: Correlation Results

	ROA	LIQ	LEV	DPO	CE	BC	FS	FA
ROA	1							
LIQ	.420**	1						
LEV	-.429**	-.175**	1					
DPO	-.174**	.194**	.297**	1				
CE	.252**	-0.019	-0.063	-.216**	1			
BC	.463**	.568**	-0.046	.294**	-0.048	1		
FS	-.230**	0.062	.245**	-0.013	-.240**	0.075	1	
FA	-0.095	-.109*	.117*	-0.05	-0.01	-0.008	.313**	1

** correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Source: Research Data, 2020

4.7 Fixed Effect Model

Fixed effect model considers the independence of each firms or cross-sectional units incorporates in the sample allowing the intercept varies for each company but still assumes that the slope of the coefficients is stable within the firms. Table 4.16 highlights the regression results for the fixed model. The findings indicated that 50% variation in financial performance is explained by firm liquidity, firm leverage, dividend pay-out, capital expenditure, board capital, firm size and firm age.

From the table 4.16, liquidity showed a positive and significant effect on financial performance ($\beta = .420$, $p < .05$). Specifically, an increase in liquidity by .420 units leads to an increase in financial performance by the same unit. The t-value = 11.170, which implies that it is more than the standard error.

Moreover, firm leverage showed a negative and significant effect on financial performance ($\beta = -.295$, $p < .05$). Consequently, an increase in firm leverage by .295 units leads to a decrease in financial performance by the same unit. The t-value is more than the error associated with as evidenced by t-value = 7.090.

Furthermore, dividend pay-out showed a significant effect on financial performance ($\beta = -.203$, $\rho < .05$). As such, an increase in dividend pay-out by .203 units leads to a decrease in financial performance by the same unit. The t-value = 4.300, which indicates that the standard error associated with it is more than it. Besides, capital expenditure showed a negative and significant effect on financial performance ($\beta = .287$, $\rho < .05$). As such, an increase in capital expenditure by .287 units leads to an increase in financial performance by the same unit. The t-value is more than the error associated with as evidenced by t-value = 4.870.

However, firm size had a negative and insignificant effect on financial performance ($\beta = -.832$, $\rho > .05$). Finally, firm age showed a positive and significant effect on financial performance ($\beta = .399$, $\rho < .05$). Specifically, an increase in firm age by .399 units leads to an increase in financial performance by the same unit. The t-value = 2.360, which implies that it is more than the standard error.

Table 4. 16: Fixed Effect Model

Fixed-effects (within) regression			Number of obs = 400			
Group variable: firmID			Number of groups = 40			
R-sq: within = .5031			Obs per group: min = 9			
between = .1731			Avg = 9.9			
overall = .3582			Max = 10			
corr(u_i, Xb) = -.3492			F(9,207) = 59.23			
			Prob > F = .000			
ESD	Coef.	Std. Err.	T	P>t	[95% Conf.	Interval]
LIQ	0.420	0.038	11.170	0.000	0.346	0.494
LEV	-0.295	0.042	-7.090	0.000	-0.376	-0.213
DPO	-0.203	0.047	-4.300	0.000	-0.295	-0.110
CE	0.287	0.059	4.870	0.000	0.171	0.402
FS	-0.832	0.705	-1.180	0.238	-2.218	0.554
FA	0.399	0.169	2.360	0.009	0.066	0.731
_cons	-2.353	1.439	-1.630	0.103	-5.184	0.478
_cons	0.11	0.03	3.74	0	0.05	0.17
sigma_u	0.817					
sigma_e	0.896					
Rho	0.454	(fraction of variance due to u_i)				
F test that all u_i=0:			F(39, 351) =	6.22	Prob > F = 0.0000	

Key=ROA= return on asset (financial performance), LIQ= liquidity, LEV =leverage, CE= capital expenditure, DPO= dividends pay out, BC = board capital, FA = firm age, FS = firm size

4.8 Random Effect Model

The random effect model estimates the coefficients based on the assumption that the individual or group effects are uncorrelated with other independent variables. The regression results for the random model are as illustrated in table 4.17. The random model showed that liquidity, leverage, dividend pay-out, capital expenditure, board capital, firm size and firm age explained 49.92% variation of financial performance. From the table, liquidity showed a positive and significant effect on financial performance ($\beta = .409$, $p < .05$). With an increase in firm liquidity by .409 units, there is an increase in financial performance by the same unit.

As well, leverage showed a positive and significant effect on financial performance ($\beta = -.265$, $p < .05$). Therefore, an increase in leverage by .265 units leads to a decrease in financial performance by the same unit. Besides, dividend pay-out showed a positive and significant effect on financial performance ($\beta = -.190$, $p < .05$). An increase in dividend pay-out by .190 units leads to a decrease in financial performance by the same unit.

Furthermore, capital expenditure showed a positive and significant effect on financial performance ($\beta = .230$, $p < .05$). As such, an increase in capital expenditure by .230 units leads to an increase in financial performance by the same unit. The t-value is more than the error associated with as evidenced by t-value = 4.650. Also, firm size showed a positive and significant effect on financial performance ($\beta = -1.072$, $p < .05$). Specifically, an increase in firm size by 1.072 units leads to a decrease in financial performance by the same unit. However, firm age had no significant influence on financial performance ($\beta = .183$, $p > .05$).

Table 4. 17: Random effect Model

Random-effects GLS regression		Number of obs = 400				
Group variable: firmID		Number of groups = 40				
R-sq: within = .4992		Obs per group: min = 9				
between = .2156		Avg = 9.9				
overall = .3860		Max = 10				
corr(u_i, X) = 0 (assumed)		Wald chi2(9) = 346.64				
		Prob > chi2 = 0				
					[95% Conf. Interval]	
ROA	Coef.	Std. Err.	T	P>z		
LIQ	0.409	0.036	11.280	0.000	0.338	0.481
LEV	-0.265	0.038	-7.020	0.000	-0.339	-0.191
DPO	-0.190	0.044	-4.260	0.000	-0.277	-0.102
CE	0.230	0.049	4.650	0.000	0.133	0.326
FS	-1.072	0.541	-1.980	0.047	-2.132	-0.013
FA	0.183	0.122	1.500	0.133	-0.056	0.423
_cons	-1.107	1.053	-1.050	0.293	-3.171	0.957
sigma_u	0.633					
sigma_e	0.896					
Rho	0.333	(fraction of variance due to u_i)				

Key=ROA= return on asset (financial performance), LIQ= liquidity, LEV =leverage, CE= capital expenditure, DPO= dividends pay out, BC = board capital, FA = firm age, FS = firm size

4.9 Hausman Test

To decide between fixed or random effects, one can run a Hausman test where the null hypothesis is that the preferred model is random effects compared to the alternative the fixed effects (see Green, 2008). It basically tests whether the unique errors (u_i) are correlated with the regressors; the null hypothesis is that they are not. Later, the Hausman Specification test, developed by Hausman (1978) is conducted to select either fixed or random effect estimator. The null hypothesis of this test suggests estimating the panel data using random effect estimator, while the alternative suggests the fixed effect model is the appropriate estimator. Rejecting the null ($p\text{-value} < .05$) indicates the fixed effect model is to be used.

The use of panel data model allows using either the fixed-effect models or random effect models to estimates the dependence relationship among the variables while

taking care of the issue of omitted variables. The decision of whether to use fixed effect or random effect models was made based on the results of Hausman test as suggested in the econometrics literature, and table 4.18 shows summarized results for the choice of the model.

From the Hausman test table 4.18, which shows a summary of the results, the conclusion is that the null hypothesis of "difference in coefficients not systematic" to determinants of financial performance is rejected. This is because the chi-square value of 20.40 was significant, p-value = .0023. Therefore, this implies that the effect of the hypothesis is tested using the fixed effects model. This means that the most appropriate model is fixed effects.

Table 4. 18: Hausman test

	---- Coefficients ----			
	(b) Fe	(B) Re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
LIQ	0.420	0.409	0.010	0.010
LEV	-0.295	-0.265	-0.029	0.017
DPO	-0.203	-0.190	-0.013	0.015
CE	0.287	0.230	0.057	0.032
FS	-0.832	-1.072	0.240	0.452
FA	0.399	0.183	0.215	0.117

Key=ROA= Return On Asset (financial performance)LIQ= liquidity,LEV =leverage, CE= capital expenditure,DPO= dividends pay out, BC = board capital, FA = firm age, FS = firm size

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\begin{aligned}\chi^2(6) &= (b-B)'[(V_b-V_B)^{-1}](b-B) \\ &= 20.40\end{aligned}$$

$$\text{Prob}>\chi^2 = 0.0023$$

4.9.1 Regression Results

The study's purpose was to determine the moderating effect of board capital on the relationship between financial flexibility and financial performance. A hierarchical regression model with seven models was applied to check for both direct and

moderating effects of the independent and moderating variables respectively on financial performance. In the hierarchical regression; the first model regressed the dependent and the controls variables, second model regressed the dependent, controls, independent, third were controls, independent variables and the moderator while models four to seven regressed the dependent, controls, independent and moderator by gradually introducing the interactions to test the hypotheses. All the models adopted the fixed effects models as suggested by the Hausman's tests conducted to decide between the random and fixed effects. The research hypotheses were tested at a 0.05 significance level where a p-value less than 0.05 rejects the null hypothesis.

4.9.2 Control Variables

However, firm size had a negative and insignificant effect on financial performance ($\beta = -.832$, $p > .05$). Finally, firm age showed a positive and significant effect on financial performance ($\beta = .399$, $p < .05$). Specifically, an increase in firm age by .399 units leads to an increase in financial performance by the same unit. The t-value = 2.360, which implies that it is more than the standard error. This is in line with the study done by Ilaboya and Ohiokha (2016) who found a positive effect of firm ages on profitability was found.

Table 4. 19: Direct Effect

Fixed-effects (within) regression		Number of obs = 400				
Group variable: firmID		Number of groups = 40				
R-sq: within = .5031		Obs per group: min = 9				
between = .1731		Avg = 9.9				
overall = .3582		Max = 10				
corr(u_i, Xb) = -.3492		F(9,207) = 59.23				
		Prob > F = .000				
ESD	Coef.	Std. Err.	T	P>t	[95% Conf.]	Interval
LIQ	0.420	0.038	11.170	0.000	0.346	0.494
LEV	-0.295	0.042	-7.090	0.000	-0.376	-0.213
DPO	-0.203	0.047	-4.300	0.000	-0.295	-0.110
CE	0.287	0.059	4.870	0.000	0.171	0.402
FS	-0.832	0.705	-1.180	0.238	-2.218	0.554
FA	0.399	0.169	2.360	0.009	0.066	0.731
_cons	-2.353	1.439	-1.630	0.103	-5.184	0.478
_cons	0.11	0.03	3.74	0	0.05	0.17
sigma_u	0.817					
sigma_e	0.896					
Rho	0.454	(fraction of variance due to u_i)				
F test that all u_i=0:		F(39, 351) =	6.22	Prob > F = 0.0000		

Key=ROA= return on asset (financial performance), LIQ= liquidity, LEV =leverage, CE= capital expenditure, DPO= dividends pay out, BC = board capital, FA = firm age, FS = firm size.

4.10 Hypothesis Testing

H₀₁: There is no significant relationship between firm liquidity on the financial performance of firms listed at Nairobi Securities Exchange in Kenya.

Hypothesis 1(H₀₁) stated that firm liquidity has no significant effect on financial performance. Findings showed that firm liquidity had coefficients of estimate which was significant basing on $\beta_1 = .17$ (p-value = .000 which is less than $\alpha = .05$). The null hypothesis was thus rejected, and it was concluded that firm liquidity has a positive and significant effect on financial performance. This suggested that there was up to .17-unit increase in financial performance for each unit increase in firm liquidity. Consistent with the findings, Arnold (2008) posited that attaining an appropriate balance between

the adequate liquidity and reasonable return of the company leads to an improvement in the financial performance.

Hypothesis 2(H₀₂)

H₀₂: There is no significant relationship between firm leverage on the financial performance of firms listed at Nairobi Securities Exchange in Kenya.

Stated that firm leverage has no significant effect on financial performance. However, the regression results indicated that firm leverage had a negative and significant influence on financial performance ($\beta = -.25$, $p < .05$). The null hypothesis was therefore not accepted, and it was concluded that an increase in firm leverage by .25 units leads to a decrease in financial performance by the same unit. Contrary to the results, Hossain, &Hossain, (2015) who concluded that firm leverage of the firm positively influenced the financial performance of insurance firms listed in the NSE.

Hypothesis 3(H₀₃)

H₀₃: There is no significant relationship between dividend pay-out on the financial performance of firms listed at Nairobi Securities Exchange in Kenya.

Stipulated that dividend pay-out has no significant effect on financial performance. On the contrary, the regression findings indicated that dividend pay-out was associated with an increase in financial performance ($\beta = -.22$, $p < .05$). As such, the null hypothesis was rejected. The implication is that an increase in dividend pay-out by .22 units leads to a decrease in financial performance by the same unit. This result is in contrast with the findings of Almeida, *et al.*, (2004) which reported a positive relationship between dividend pay-out and profitability.

Hypothesis 4(H₀₄)

H₀₄: There is no significant relationship between capital expenditure on the financial performance of firms listed at Nairobi Securities Exchange in Kenya.

Indicated that capital expenditure has no significant effect on financial performance. However, the findings indicated that capital expenditure has a positive and significant influence on financial performance ($\beta = .12$, $p < .05$). Specifically, an increase in capital expenditure by .12 units leads to an increase in financial performance by the same unit. Consistent with the study findings, Ching-Hai, Hsiang, Chen and Yen-Sheng, (2006) established a significant positive association between capital expenditures and future corporate earnings even after controlling for current corporate earnings.

4.11 Moderating Effect of Board Capital.

After finding the regression results the study check on the moderating effect of board capital on the relationship between financial flexibility mechanism variables and financial Performance. A moderator is a qualitative or quantitative variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable (Baron & Kenny, 1986).

According to Frazier, Tix and Barron, (2004), there are three types of moderations; First is the enhancing interactions where both the predictor and moderator affect the outcome variable in the same direction and together have a stronger than additive effect, secondly, is the buffering interaction where the moderator variable weakens the effect of the predictor variable on the outcome, and lastly is the antagonistic interactions where the predictor and moderator have the same effect on the outcome but the interaction is in the opposite direction. Moderation is a situation in which independent

variables' effect on the dependent varies as a function of some third variable which is the moderator variable (Hayes, 2009). The study used a hierarchical regression model to test the moderation hypotheses by gradually introducing the interactions and interpreting the resulting output. A moderated effect is typically modeled statistically as an interaction between predictors and the moderator variable (Hayes, 2009), which are gradually added into the models. As an indication to arrive at a conclusion as to whether there is a moderation effect, Hayes, (2009) stated that three conditions must hold; First, the R square for without and with interaction should vary, secondly the coefficient for the interaction should be different from zero, and lastly is that the overall model (F-value) should be significant.

H_{05:a}. Board capital does not moderate the relationship between firm liquidity and financial performance of listed firm at Nairobi Securities Exchange in Kenya.

The moderation results in Table 4.19 model 7 shows the results for moderation. The results show an insignificant moderating effect of board capital on the relationship between liquidity and financial performance ($R^2\Delta=0.00$ $\beta=-0.02$; $p>0.05$). The results show that there is a 0% change in the variation of financial performance by the addition of board capital on the relationship between liquidity and financial performance. The variation is insignificant ($p>0.05$) and negative ($\beta=-0.02$). Therefore, board capital has no moderating effect on the relationship between firm liquidity and financial performance. The null hypothesis that board capital has no significant moderating effect on the relationship between liquidity and financial performance was thus accepted.

H_{05:b}. Board capital does not moderate the relationship between firm leverage and financial performance of listed firm at Nairobi Securities Exchange in Kenya.

Further, the results indicate a positive and significant moderating effect of board capital on the relationship between leverage and financial performance ($R^2\Delta=0.07$, $\beta= 0.02$; $\rho<0.05$). The results show that there is a 7% increase in the variation of financial performance by the addition of board capital on the relationship between firm leverage and financial performance. Board capital strengthens the relationship between leverage and financial performance. The null hypothesis that board capital has no significant moderating effect on the relationship between leverage and financial performance was thus rejected.

H_{05:c}. Board capital does not moderate the relationship between dividend pay-out and financial performance of listed firm at Nairobi Securities Exchange in Kenya.

Besides, board capital has a positive and significant moderating effect on the relationship between dividend pay-out and financial performance ($R^2\Delta=0.05$ $\beta= -0.06$; $\rho<0.05$). The results show that there is a 5% decrease in the variation of financial performance by the addition of board capital on the relationship between dividend pay-out and financial performance. The decrease is significant ($\rho<0.05$). The results suggest that board capital weakens the relationship between dividend pay-out and financial performance. The null hypothesis that board capital has no significant moderating effect on the relationship between dividend pay-out and financial performance was thus rejected.

H₀₅:d. Board capital does not moderate the relationship between capital expenditure and financial performance of listed firm at Nairobi Securities Exchange in Kenya.

Finally, board capital has a positive and significant moderating effect on the relationship between capital expenditure and financial performance ($R^2\Delta=0.07$; $\beta=0.13$; $p<0.05$). The results show that there is a 7% increase in the variation of financial performance by the addition of board capital on the relationship between capital expenditure and financial performance. The increase is significant ($p<0.05$) and positive ($\beta=0.13$). The results suggest that board capital strengthens the relationship between capital expenditure and financial performance. The null hypothesis that board capital has no significant moderating effect on the relationship between capital expenditure and financial performance was thus rejected.

Table 4. 20: Moderating effect of board capital

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
ROA	B(SE)	B(SE)	B(SE)	B(SE)	B(SE)	B(SE)	B(SE)
_cons	1.06(1.95)	(-2.35(1.4)	1.46(1.23)	1.91(1.23)	2.45(1.24)*	3.50(1.26)*	3.05(1.27)*
control							
FS	-.68(.94)	(-0.83(.70)	-2.28(.60)**	-2.34(.60)**	-2.57(.59)**	(-2.84(.60)**	-2.77(.59)**
FA	(-.57(.23)*	0.40(.17)*	(-0.06(.15)	(-0.10(.15)	(-0.13(.14)	(-0.17(.14)	(-0.20(.14)
predictors							
LIQ		0.42(.03)**	0.16(.04)**	0.19(.04)**	0.19(.04)**	0.17(.04)**	0.17(.04)**
LEV		-0.29(.04)**	-0.24(.03)**	-0.24(.03)**	-0.28(.03)**	(-0.26(.03)**	-0.25(.03)**
DPO		-0.20(.04)**	-0.28(.04)**	-0.29(.04)**	-0.30(.04)**	(-0.19(.04)**	-0.22(.05)**
CE		0.29(.05)**	0.33(.05)**	0.33(.05)**	0.34(.05)**	0.33(.05)**	0.12(.05)**
moderator							
BC			0.49(.04)**	0.35(.09)**	0.37(.07)**	0.11(.10)	0.39(.17)*
interaction							
LIQ*BC				(-0.04(.03)	(-0.04(.01)*	(-0.01(.01)	(-0.02(.01)
LEV*BC					0.03(.01)*	0.02(.01)*	0.02(.01)*
DPO*BC						(-0.08(.02)**	(-0.06(.02)*
CE*BC							0.13(.06)*
R-sq: within	0.02	0.50	0.66	0.68	0.67	0.68	0.68
Between	0.04	0.17	0.26	0.26	0.25	0.26	0.25
Overall	0.02	0.36	0.49	0.49	0.48	0.48	0.48
R-sq Δ	-	0.34	0.13	0.00	0.01	0.001	0.001
F stat	3.88	59.23	95.12	83.91	88.55	94.01	68.34
Prob > chi2	0.02	0.00	0.00	0.00	0.00	0.00	0.00
sigma_u	0.81	0.82	0.80	0.81	0.86	0.86	0.86
sigma_e	1.25	0.90	0.75	0.75	0.73	0.72	0.72
Rho	0.30	0.45	0.53	0.54	0.58	0.59	0.59

** correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Source: Research Data, 2020

4.11.1 Nature of moderating effect of board capital using Modgraphs

Figure 4.1 demonstrated that an increase in board capital brought about a steeper slope between leverage and financial performance; hence, null hypothesis 1 was not supported. This implied that board capital positively and significantly moderates the relationship between leverage and financial performance. The findings in figure 4.1 indicate an enhancing moderation effect where increased board capital result in an increased effect of firm leverage on financial performance.

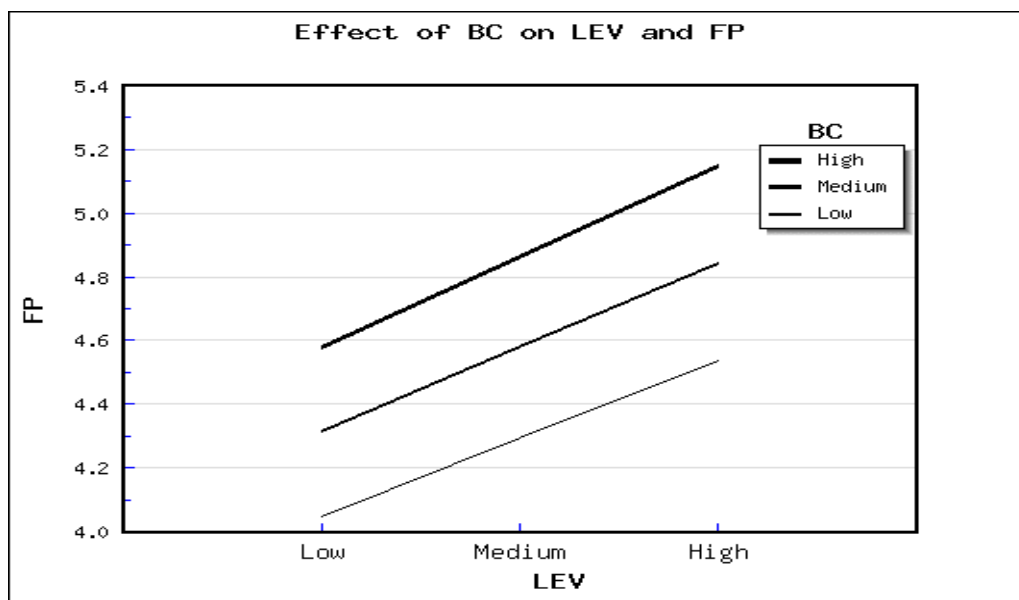


Figure 4. 1: Modgraph of board capital on the relationship between leverage and financial performance

Source: Research Data, 2020

The graph in Figure 4.2 revealed that with an improvement in the board's ability to provide resources to the firm, there is a negative contribution of dividend pay-out to financial performance. So, the null hypothesis Ho2b was rejected. Thus, board capital negatively and significantly moderates the relationship dividend pay-out and financial performance.

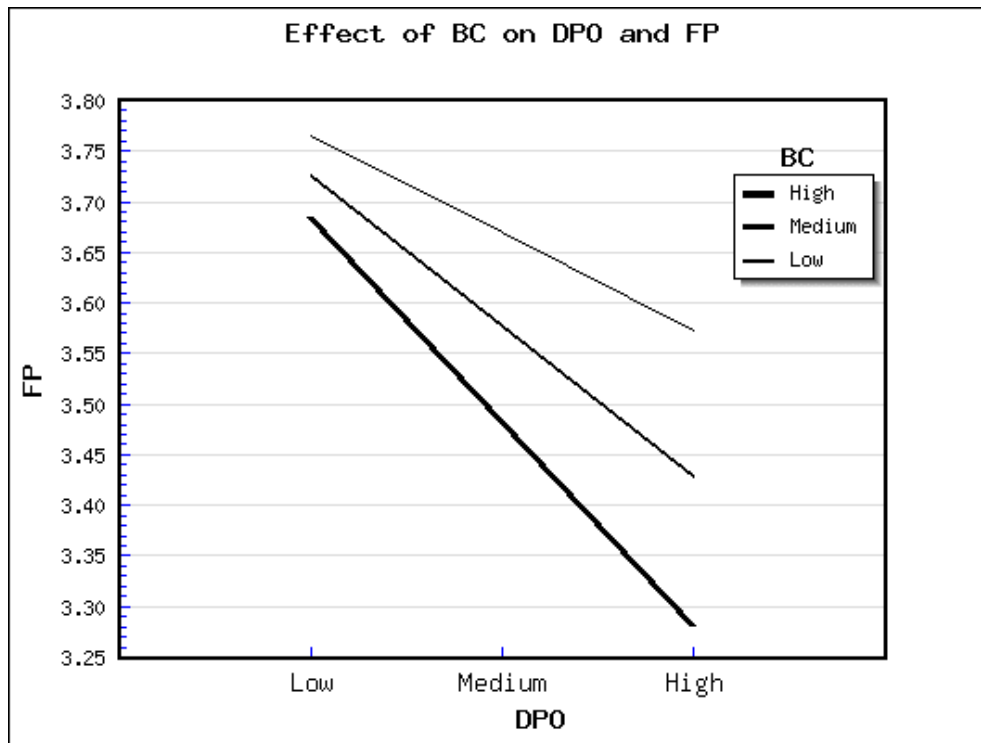


Figure 4. 2: Modgraph of board capital on the relationship between dividend pay-out and financial performance

Source: Research Data, 2020

As concerns the moderating effect, Figure 4.3 reveals an enhancing effect that as board capital increases, the effect of capital expenditure on financial performance increases as well, as depicted by the steepness of the slope. The hypothesis was, therefore rejected. Thus, board capital positively and significantly moderates the relationship between capital expenditure and financial performance. In conclusion dividend payout had a buffering effect when moderated with board capital

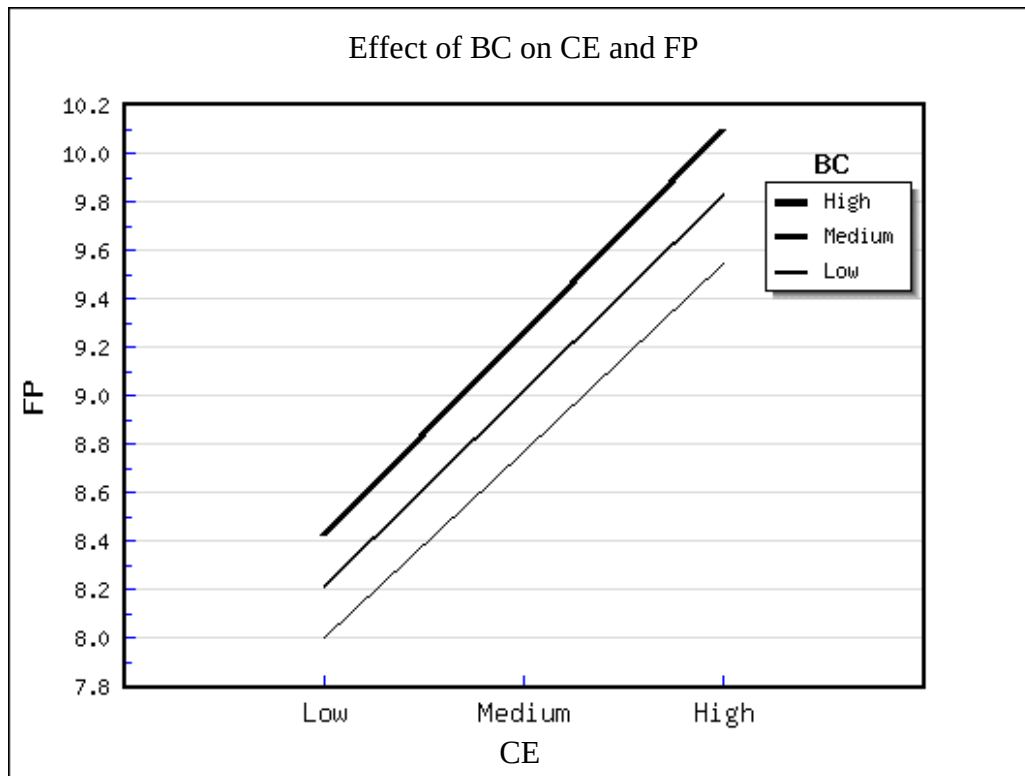


Figure 4. 3: Modgraph of board capital on the relationship between capital expenditure and financial performance

Source: Research Data, 2020

CHAPTER FIVE

SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the findings, conclusion and recommendation of the study. The recommendations are made concerning the conclusion of the study, while the recommendation for further studies is essential for the extension of the study.

5.2 Summary of Findings

The primary objective of the study was to determine if board capital has an interaction on the relationship between financial flexibility and financial performance of firms listed at Nairobi Securities Exchange in Kenya. As evidenced in chapter four, the liquidity levels were at the mean of 0.25 while firm leveraging at 0.25. Further, financial performance was averaged at a mean of 0.25, capital expenditure at 0.25 and board capital at a mean of 4.58. The dividends payout to shareholders relative to the company's net income was at a mean of 0.27. Finally, the firm size was at a mean of 7.10, with the firms listed being in operation for an average of 57 years.

The study ensured that there was no multicollinearity and the data was stationary. The Hausman test indicated that the fixed effects model was best suited to test hypotheses. Further findings indicated that firm leverage brought about a decrease in financial performance. On the flipside, firm liquidity, dividend pay-out and capital expenditure were associated with better financial performance. When moderate with board capital, there was a positive and significant relationship between capital expenditure and financial performance as well as leverage and financial performance.

However, board capital had a negative moderating effect on the relationship between dividend pay-out and financial performance. Finally, board capital had no moderating effect on the relationship between firm liquidity and financial performance.

5.2.1 Firm liquidity on financial performance

Firm liquidity had a positive and significant effect on financial performance. The implication is that an increase in firm liquidity brings about an improvement in financial performance. Consistent with the findings, Chandra, (2001) elucidated that high liquidity is considered to be a sign of financial strength. Similarly, Renato, (2010) confirmed that if a firm runs out of cash and cannot secure the financing it will fail. The findings are also in tally with that of Ndirangu, (2013), which concluded that liquidity significantly influences firm performance and can be used to predict profitability. Notably, the bulk of the studies have failed to indicate the appropriate levels within which liquidity needs to be maintained to enhance the financial performance of firms. Besides, a few of the studies have established a direct link between firm liquidity and financial performance. As such, the current study has added sufficient insights into the positive link between firm liquidity and financial performance among firms listed in NSE with the period 2008 to 2017.

5.2.2 Firm leverage on financial performance

Firm leverage has a negative and significant effect on financial performance. It tally with the findings, Anjum and Malik, (2013) concluded that the leverage is positively significant to the financially distressed firms in Pakistan's securities exchange. This meant that the use of a high level of leverage contributes to bankruptcy. Similarly, Razak, (2012) found that leverage is negatively associated with firm performance. In the same way, Akande, (2013) in a study on the influence of financial leverage on the

financial performance of 10 firms from Nigeria. The findings are also in tally with that of Chinaemerem and Anthony, (2012), which showed that financial leverage has a significant but negative effect on the financial performance denoted by ROA and ROE.

On the other hand, Uwalomwa and Uadiale, (2012) established that short-term debt positively influences financial performance, while long-term debt negatively influences the financial performance of firms in Nigeria. Further support of the study findings is by Innocent, *et al.* (2014), who noted that the debt ratio and debt-equity ratio have a negative link with ROA in pharmaceutical firms in Nigeria. As well, Maina and Kondongo, (2013) revealed that the debt-equity ratio has a significant negative association with all measures of financial performance. The study findings are also in tally with that of Ningsih and Djuaeriah, (2013), which discovered a negative relationship between financial leverage and ROA. Nevertheless, Rehman, (2013) established that financial leverage has a positive relationship with ROA and sales growth. Overall, the majority of the studies have confirmed that financial leverage negatively impacts on firm financial performance. The study, therefore, validates prior studies that have found a negative link between financial leverage and financial performance of firms.

5.2.3 Dividend pay-out on financial performance

Dividend pay-out had a negative influence on financial performance. The study findings are in contrast with the assertion that high dividends increase value. Consistent with the results, Almeida *et al.* (2004) posited that firms facing frictions in the form of high costs of external financing or high volatility in its investment opportunity tend to adopt a policy of low equity pay-outs. Also, the study aligns with prior authors who indicated that firm's growth opportunities are negatively associated with dividends

(Fama and French, 2001), Denis and Osobov, (2008), DeAngelo, *et al.* (2006). Notably, not much has been done in the literature concerning the influence of dividend pay-out on financial performance. Nevertheless, the study supports the notion that dividend pay-out is detrimental to the financial performance of firms listed in NSE. Consequently, the study contributes new insights into the negative link between dividend pay-out and firm financial performance.

5.2.4 Capital expenditure on financial performance

Capital expenditure had a positive and significant effect on financial performance. In conformity with the findings, Al Farouque, Tony, Dunstan and Karim, (2005), found that capital expenditure had a positive influence on corporate performance as measured using Return on Assets. In a similar vein, Lev and Thiagrajan, (1993) posited that capital expenditures translate to returns manifested through increased financial performance. This was the same case with Chung, Wright and Charoenwong, (1998) who argued that the quality of a firm's capital expenditure decisions influences financial performance. Similarly, Brooke, (2014) elucidated that growth capital expenditure exhibited a more positive association with future financial performance.

Nevertheless, Abarbanell and Bushee, (1997) posited that there is a negative relationship between capital expenditure and firm profitability. The study was of the view that capital expenditures could be a bad signal for future earnings in the event poor performing firms take on excessive projects. Overall, the bulk of prior studies confirm that capital expenditure positively influences firm financial performance. Consequently, the current study is in support of the notion that increased capital expenditure is associated with improved financial performance.

5.2.5 Moderating effect of Board Capital

The study established that board capital has no significant moderating effect on the relationships between firm liquidity and financial performance ($\beta = -0.02, \rho > 0.05$). The findings are in contrary with that of Pearce & Zahra (2012) which suggest a positive association between the structure of the board and financial performance in which liquidity plays a substantial role in enhancing the performance.

However, board capital positively and significantly moderated the relationship between firm leverage and financial performance ($\beta = 0.02; \rho < 0.05$). Notably, with the incorporation of board capital, the effect of firm leverage on financial is no longer negative but positive. The knowledge and intellect that is brought to the board by members coming from varied backgrounds lead to excellent and sound management of firms leverage. Consistent with the results, Johl, Kaur, & Cooper, (2015) elucidated that the experience brought by the board made it possible for the firm to convince the suppliers, customers, employees, lenders, and shareholders to stay put throughout the tough times thereby enhancing the financial performance.

Furthermore, board capital has a negative and significant moderating effect on the relationship between dividend pay-out and financial performance ($\beta = -0.06; \rho < 0.05$). The implication is that, with the board capital, there is reduced dividend pay-out, which increases the free cash flow available to the firm management. Perhaps, shareholders having known that the board is composed of knowledgeable and skilled individuals and are assured that the firm safeguards their rights. As such, they forego their dividends for the prospective payoffs from the growth of the firm with the use of retained funds.

Finally, board capital enhances the relationship between capital expenditure and financial performance ($\beta = 0.13; \rho < 0.05$). The findings suggest that the board is in

approval of the firms' capital expenditures that contribute to improved financial performance. In line with the results, Mutlu, Sauerwald, Au, & Wang (2015) noted that board capital is positively associated with the provision of resources and the overall firm financial performance.

5.3 Conclusion

In conclusion, firm liquidity positively influences the financial performance of firms listed in NSE. The implication is that the firms have excess free cash flow and are utilizing asset and liability strategies to improve their financial performance. As well, the firms listed are in a position to take advantage of profitable investment opportunities because of their liquidity levels. The resulting outcome is an improvement in financial performance. Nevertheless, when moderated with board capital, firm liquidity has no significant influence on financial performance.

Also, the study concluded that financial leveraging negatively impacts on the financial performance of firms listed in the NSE. The implication of the study is that debt and equity ratios negatively influence financial performance. It could be that the financial leverage strategies are not adequate to enhance the performance of the firms. There is also a possibility that the firms listed were not better placed to raise good capital from fixed income securities. However, when moderated with board capital, leverage enhances firm financial performance. Consequently, with the board, there is sound management of firms leverage to the extent of improving financial performance.

Besides, though dividend pay-outs are construed to transmit information about the future profitability of firms, the study findings elicited a negative link between dividend pay-outs and financial performance. It could be that the shareholders forego their dividends for the prospective payoffs from the growth of the firm. There is also a

possibility that the firms' liquidity position does not allow them to pay dividends easily. Similarly, when moderated with board capital, dividend pay-outs still negatively impact on the financial performance. Overall, the findings are in line with theories that deem dividend pay-outs as irrelevant in enhancing firm financial performance.

Finally, capital expenditure positively and significantly influenced the financial performance of firms listed in NSE. As such, an increase in capital expenditure would bring about an increase in the Return on Assets of the firms listed in NSE. In the same way, when moderated with board capital, the influence of capital expenditure on financial is positive. The findings support the notion that capital expenditure creates future economic benefits that leads to improved financial performance as measured using ROA.

5.4 Implications of the Study

5.4.1 Policy recommendations

The study recommends the need for an effective financial flexibility to enhance financial performance, besides the firms listed at NSE need policy guidelines for cashflow to maximize the profit potential, while minimizing the liquidity risk units in finance.

The study also recommends best guidelines in education, knowledge, desired experience and qualifications on the appointment of the board of the directors as the study found out that board capital enhance performance due to the decision they make relating to financial flexibility.

The Capital Market Authority should provide a clear policy on the ideal financial flexibility putting into consideration on the decision that the board of directors can influence financial performance.

5.4.2 Practical implications

Since firm liquidity enhance the financial performance of the firms listed in NSE its crucial for the firms to conduct effective asset liquidity management to maximize the value of the company and its financial performance. As liquidity is a sign of the financial strength while firm that are highly liquid can easily access fund at the cheaper cost.

Besides dividend pay-out bringing about detrimental to the financial performance of the firms listed in NSE. This may be attributed to high cost of external financing or volatility in its investment opportunity that tend to adopt low equity pay-out hence negatively associated with financial performance.

Its also crucial for the management of the firms to consider financing expansion and capital expenditure initiative through debt. Firms also need to ensure that the assets finance by borrowed funds provide return sufficient enough to cover the related borrowing with this in consideration there would be no erosion of reserves in servicing debts

The focus need to be on raising cheap capital from fixed income securities. Other than that the firms listed in NSE need to have effective debt management mechanism so as to elicit improvement in the financial performance.

5.4.3 Theoretical Implications

The theoretical implication of this study is that it supports and extends the trade-off theory by confirming that financial leverage might not be adequate to enhance financial performance despite being critical in tax savings associated with the use of debt. Furthermore, the retention of dividends by the firms listed in NSE validates the stewardship theory, which is on the premise that directors and managers are trustworthy and good stewards of the resources entrusted to them. Besides, with the retention of funds, there is a possibility that the shareholders are confident that the directors would maximize their wealth. Overall, having control empowers the management of the firms listed in NSE to managers to maximize corporate profits. As well, the firms' management is good stewards since they have utilized firm leverage and capital expenditures to facilitate financial performance. They are therefore bringing good returns to investors and at the same time a good reputation for the firm.

5.4.4 Management implication

This study also underpins the importance of the components of board capital as it underscores the significance and resources that the board provides to the organization in the form of financial flexibility decision on financial performance. Board capital components which comprises the board's expertise, experience, knowledge, reputation, and skills on the financial performance. The study also brings to fore the interaction brought about by the board capital on leverage, capital expenditure and dividend payout on financial performance. This is relevant especially when management is considering financing expansion and capital expenditure initiatives through debt, while making decision on the dividends. Management must not only understand the combined effect of additional leverage and capital expenditure on financial performance. The study also reveals that the components of financial flexibility affect financial performance. Hence

it is important for management to be cognizant of this fact and ensure that they strive to identify and manage the listed firms to enhance the financial performance

5.5 Recommendations

The findings of the study established that firm liquidity enhances the financial performance of firms listed in NSE. Therefore, it is crucial for the firms listed in NSE to conduct effective liquidity management to maximize the value of the company and its financial performance. Emphasis needs to be on ensuring there is an appropriate asset-liability mix in that the total liabilities must not exceed the total assets of a firm. Besides, the firms need policy guidelines for cash flow to maximize the profit potential, while minimizing the liquidity risk in the financial statement.

Additionally, financial leveraging has a negative impact on the financial performance of firms listed in NSE. The study, therefore, recommended for firms to embrace feasible financial leveraging strategies that can boost firm profitability. The focus needs to be on raising good capital from fixed income securities. Other than that, the firms listed in NSE need to have effective debt management mechanisms so as to elicit an improvement in the financial performance.

Besides, dividend pay-outs bring about a decline in the financial performance of firms listed in NSE. It is therefore essential for the firms to ensure dividend pay-outs are sustained to boost the financial performance continually. The firms should also consider a corporate dividend policy that is both efficient and reliable to enhance firm performance and shareholder value. Besides, capital expenditures need to be taken into consideration while designing the dividend policy.

Finally, the study has brought to fore the positive relationship between capital expenditure and financial performance of firms listed in NSE. It is, therefore crucial for the management of firms to consider financing expansion and capital expenditure initiatives through debt. Also, the firms need to ensure that the assets financed by borrowed funds provide a return sufficient enough to cover the cost of the related borrowing. With this in consideration, there would be no erosion of reserves in servicing debts.

5.6 Recommendations for Further Studies

This study has analyzed the moderating effect of board capital on the relationship between financial flexibility and financial performance of firms listed at Nairobi Securities Exchange in Kenya. Therefore, there is a need for further studies to carry out a similar study for a more extended period since this study only took into consideration ten years from 2008 to 2017. Also, it essential to undertake the same study but focus on firms not listed in NSE to ascertain whether the study findings hold.

Future studies could also examine the influence of dividend pay-out on financial performance since limited studies are examining the link between the two variables. Other than that, future scholars could also conduct comparative studies among different countries concerning the relationship between financial flexibility and financial performance. As well, a qualitative analysis could also be undertaken with a focus on different measures of financial flexibility. Such studies could provide further insights into the relationship in question and might improve the explanatory power of future studies.

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APPENDICES

Appendix I: Summary of the Statistical Results.

The summary of the statistical results of the hypotheses of the study are presented

Hypotheses	DIRECT EFFECT	Coefficient	P-Value	Decision
H ₀₁	There is no significant relationship between firm liquidity on the financial performance of the firms listed at Nairobi Securities Exchange in Kenya.	($\beta=.17$), Positive	(p-value = .000 P <.05)	Reject
H ₀₂	There is no significant relationship between firm leverage on the financial performance of the firms listed at Nairobi Securities Exchange in Kenya.	($\beta=-.25$ Negative	(p-value =000 p<.05)	Reject
H ₀₃	There is no significant relationship between Dividend payout on the financial performance of the firms listed at Nairobi Securities Exchange in Kenya	($\beta= -.22$ Negative	(p-value=000 p<.05	Reject
H ₀₄	There is no significant relationship between Dividend payout on the financial performance of the firms listed at Nairobi Securities Exchange in Kenya	($\beta =.12$ Positive	(p-value= .000 p<.05)	Reject
	MODERATING			
H _{05a:}	Board capital does not moderate the relationship between firm liquidity and financial performance of listed firm at Nairobi Securities Exchange in Kenya	(R ² Δ =0.00 $\beta= -0.02$;	p- value=>0.05). $\rho>0.05$).	Accept
H _{05b:}	Board capital does not moderate the relationship between firm leverage and financial performance of listed firm at Nairobi Securities Exchange in Kenya	(R ² Δ =0.07 $\beta= 0.02$;	(p- value=,<.05)	Reject
H _{05c:}	Board capital does not moderate the relationship between Dividend pay out and financial performance of listed firm at Nairobi Securities Exchange in Kenya	(R ² Δ =0.05 $\beta= -0.06$;	(p- value=,<.05)	Reject
H _{05d:}	Board capital does not moderate the relationship between capital expenditure and financial performance of listed firm at Nairobi Securities Exchange in Kenya	(R ² Δ =0.07 $\beta= 0.13$;	(p-value =.000<.05)	Reject

Appendix II: List of Firms Listed

NO.	COMPANY	SECTOR	YEAR OF INCORP	COMMENT
1	Eaagads Ltd	Agricultural	1946	Included, data available
2	Kakuzi Ltd	Agricultural	1906	Included; data available
3	Kapchorua Tea Co. Ltd	Agricultural	1869	Excluded; data available for 2009-2017
4	Limuru Tea Co. Ltd	Agricultural	1895	Excluded, Missing data:2014,2015
5	Sasini Ltd	Agricultural	1952	Included; data available for 2009-2017
6	Williamson Tea Kenya Ltd	Agricultural	1952	Excluded;; data available for 2009-2017
7	Car & General (K) Ltd	Automobiles & Accessories	1936	Excluded;; data available for 2009-2017
8	Marshalls (E.A.) Ltd	Automobiles & Accessories	1947	Excluded, Missing data: 2008,2012,2013
9	Barclays Bank of Kenya Ltd	Banking	1916	Included; data available
10	Cfc Stanbic of Kenya Holdings Ltd	Banking	1955	Included; data available
11	Diamond Trust Bank Kenya Ltd	Banking	1945	Included; data available
12	Equity Group Holdings Ltd	Banking	1984	included, listed in 2006
13	Housing Finance Group Ltd	Banking	1965	Excluded;; data available for 2004-2017
14	I&M Holdings Ltd	Banking	1950	Excluded, Listed in 2013 and missing data;2009
15	Kcb Group Ltd Ord	Banking	1896	Included; data available
16	National Bank of Kenya Ltd	Banking	1986	Included; data available
17	Nic Group Plc	Banking	1959	Included; data available
18	Standard Chartered Bank Kenya Ltd	Banking	1911	Included; data available
19	The Co-Operative Bank of Kenya Ltd	Banking	1965	Included ; data available
20	Atlas African Industries Ltd	Commercial And Services	2012	Excluded, Missing data; 2008-2013 and 2016
21	Express Kenya Ltd	Commercial And Services	1918	Included; data available
22	Hutchings Biemer Ltd	Commercial And Services	1982	Excluded, Missing all data, Suspended in 2001
23	Kenya Airways Ltd	Commercial And Services	1977	Excluded data available for 2008-2017
24	Longhorn Publishers Ltd	Commercial And Services	1965	Excluded, Missing 2008-2012
25	Nairobi Business Ventures Ltd	Commercial And Services	2012	Excluded, Missing 2008-2015
26	Nation Media Group Ltd	Commercial And Services	1959	Included; data available
27	Standard Group Ltd	Commercial And Services	1902	Included; data available
28	Tps Eastern Africa Ltd	Commercial And Services	1970	Included; data available
29	Uchumi Supermarket Ltd	Commercial And Services	1975	Excluded
30	Sameer Africa Ltd	Commercial and Services	1969	Included; data available

31	Scangroup Ltd	Commercial And Services	1996	Included, data available
32	Athi River Mining	Construction & Allied	1974	Excluded;; data not available for 2010-2017
33	Bamburi Cement Ltd	Construction & Allied	1951	Included; data available
34	Crown Paints Kenya Ltd	Construction & Allied	1958	Included; data available
35	E.A.Cables Ltd	Construction & Allied	1966	Included; data available
36	E.A.Portland Cement Co. Ltd	Construction & Allied	1933	Included; data available
37	Kengen Co. Ltd	Energy & Petroleum	1954	Included ;data available
38	Kenolkobil Ltd	Energy & Petroleum	1959	Included; data available
39	Kenya Power &Lighting Co Ltd	Energy & Petroleum	1922	Included, data available
40	Total Kenya Ltd	Energy & Petroleum	1955	Included; data available
41	Umeme Ltd	Energy & Petroleum	2004	Included data available
42	Britam Holdings Ltd	Insurance	1965	Excluded, Listed 2011 and Missing 2008
43	Cic Insurance Group Ltd	Insurance	1968	Included,data available
44	Jubilee Holdings Ltd	Insurance	1937	Included; data available
45	Kenya Re-Insurance Corporation Ltd	Insurance	1971	Included,data available
46	Liberty Kenya Holdings Ltd	Insurance	1964	Included,data available
47	Pan Africa Insurance Holdings Ltd	Insurance	1946	Excluded;;
48	Centum Investment Co Ltd	Investment	1967	Included; data available
49	Home Afrika Ltd	Investment	2008	Excluded, Listed 2013
50	Kurwitu Ventures Ltd	Investment	2006	Excluded, Listed 2014
51	Olympia Capital Holdings Ltd	Investment	1968	Excluded, Missing data; 2010,2011,2012,2016
52	Trans-Century Ltd	Investment	1997	Included;;data available
53	Nairobi Securities Exchange Ltd Ord	Investment Services	1954	Included,data available
54	A.Baumann& Co Ltd	Manufacturing & Allied	1959	Excluded, Missing 2010-2016
55	B.O.C Kenya Ltd	Manufacturing & Allied	1940	Included; data available
56	British American Tobacco Kenya Ltd	Manufacturing & Allied	1907	Included; data available
57	Carbacid Investments Ltd	Manufacturing & Allied	1961	Included; data available
58	East African Breweries Ltd	Manufacturing & Allied	1922	Included; data available
59	Eveready East Africa Ltd	Manufacturing & Allied	1967	Excluded, Listed 2006
60	Flame Tree Group Holdings Ltd	Manufacturing & Allied	1989	Excluded, Missing data; 2008-2013
61	Kenya Orchards Ltd	Manufacturing & Allied	1959	Excluded, Missi2008,2012,2015
62	Mumias Sugar Co. Ltd	Manufacturing & Allied	1971	Excluded; data available for 2008-2017
63	Unga Group Ltd	Manufacturing & Allied	1908	Included; data available
64	Safaricom Ltd	Telecommunication & Technology	1993	Included, data available
65	StanlibFahari I-Reit	Real Estate Investment Trust	2002	Excluded missing data for 2008-2015 and 2017.

Appendix IV: Output

Fisher-type unit-root test for LIQ
Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots Number of panels = 40
Ha: At least one panel is stationary Number of periods = 10

AR parameter: Panel-specific Asymptotics: T -> Infinity
Panel means: Included
Time trend: Not included
Drift term: Not included ADF regressions: 0 lags

Statistic p-value

Inverse chi-squared(80) P 233.8914 0.0000
Inverse normal Z -7.9191 0.0000
Inverse logit t(204) L* -8.8798 0.0000
Modified inv. chi-squared Pm 12.1662 0.0000

P statistic requires number of panels to be finite.
Other statistics are suitable for finite or infinite number of panels.

Fisher-type unit-root test for LEV
Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots Number of panels = 40
Ha: At least one panel is stationary Avg. number of periods = 9.97

AR parameter: Panel-specific Asymptotics: T -> Infinity
Panel means: Included
Time trend: Not included
Drift term: Not included ADF regressions: 0 lags

Statistic p-value

Inverse chi-squared(80) P 291.7362 0.0000
Inverse normal Z -8.8211 0.0000
Inverse logit t(204) L* -11.4527 0.0000
Modified inv. chi-squared Pm 16.7392 0.0000

P statistic requires number of panels to be finite.
Other statistics are suitable for finite or infinite number of panels.

Fisher-type unit-root test for CE
Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots Number of panels = 40
Ha: At least one panel is stationary Number of periods = 10

AR parameter: Panel-specific Asymptotics: T -> Infinity
 Panel means: Included
 Time trend: Not included
 Drift term: Not included ADF regressions: 0 lags

Statistic p-value

Inverse chi-squared(80)	P	232.8771	0.0000
Inverse normal	Z	-8.8919	0.0000
Inverse logit t(204)	L*	-9.4092	0.0000
Modified inv. chi-squared	Pm	12.0860	0.0000

P statistic requires number of panels to be finite.
 Other statistics are suitable for finite or infinite number of panels.

Fisher-type unit-root test for BC
 Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots	Number of panels =	40
Ha: At least one panel is stationary	Number of periods =	10

AR parameter: Panel-specific Asymptotics: T -> Infinity
 Panel means: Included
 Time trend: Not included
 Drift term: Not included ADF regressions: 0 lags

Statistic p-value

Inverse chi-squared(80)	P	228.2372	0.0000
Inverse normal	Z	-6.6680	0.0000
Inverse logit t(204)	L*	-8.0451	0.0000
Modified inv. chi-squared	Pm	11.7192	0.0000

P statistic requires number of panels to be finite.
 Other statistics are suitable for finite or infinite number of panels.

Fisher-type unit-root test for DPO
 Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots	Number of panels =	40
Ha: At least one panel is stationary	Avg. number of periods =	9.95

AR parameter: Panel-specific Asymptotics: T -> Infinity
 Panel means: Included
 Time trend: Not included

Drift term: Not included ADF regressions: 0 lags

	Statistic	p-value
Inverse chi-squared(80) P	297.8249	0.0000
Inverse normal Z	-10.5287	0.0000
Inverse logit t(204) L*	-12.1129	0.0000
Modified inv. chi-squared Pm	17.2206	0.0000

P statistic requires number of panels to be finite.
Other statistics are suitable for finite or infinite number of panels.

Fisher-type unit-root test for FS
Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots Number of panels = 40
Ha: At least one panel is stationary Number of periods = 10

AR parameter: Panel-specific Asymptotics: T -> Infinity
Panel means: Included
Time trend: Not included
Drift term: Not included ADF regressions: 0 lags

	Statistic	p-value
Inverse chi-squared(80) P	213.6545	0.0000
Inverse normal Z	-6.3310	0.0000
Inverse logit t(204) L*	-7.6416	0.0000
Modified inv. chi-squared Pm	10.5663	0.0000

P statistic requires number of panels to be finite.
Other statistics are suitable for finite or infinite number of panels.

Fisher-type unit-root test for FA
Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots Number of panels = 40
Ha: At least one panel is stationary Number of periods = 10

AR parameter: Panel-specific Asymptotics: T -> Infinity
Panel means: Included
Time trend: Not included
Drift term: Not included ADF regressions: 0 lags

	Statistic	p-value
Inverse chi-squared(80) P	326.7053	0.0000
Inverse normal Z	-5.3909	0.0000
Inverse logit t(204) L*	-10.6752	0.0000

Modified inv. chi-squared Pm 19.5038 0.0000

P statistic requires number of panels to be finite.

Other statistics are suitable for finite or infinite number of panels.

MODEL 1-Control Model

. xtreg ROA FS FA, fe-

Fixed-effects (within) regression Number of obs = 400
Group variable: firmid Number of groups = 40

R-sq: within = 0.0212 Obs per group: min = 10
between = 0.0358 avg = 10.0
overall = 0.0197 max = 10

corr(u_i, Xb) = -0.3290 F(2,358) = 3.88
Prob > F = 0.0215

ROA	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]
FS	-.6764409	.9495981	-0.71	0.477	-2.543932 1.191051
FA	-.5714902	.2192373	-2.61	0.010	-1.002645 -.1403355
_cons	1.06954	1.954125	0.55	0.584	-2.773467 4.912547

sigma_u .80916336
sigma_e 1.2474656
rho .29614214 (fraction of variance due to u_i)

F test that all u_i=0: F(39, 358) = 3.30 Prob > F = 0.000

MODEL 2

Fixed-effects (within) regression Number of obs = 400
Group variable: firmid Number of groups = 40

R-sq: within = 0.5031 Obs per group: min = 9
between = 0.1731 avg = 9.9
overall = 0.3582 max = 10

corr(u_i, Xb) = -0.3492 F(6,351) = 59.23
Prob > F = 0.0000

ROA	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]
FS	-.8323656	.7047653	-1.18	0.238	-2.21846 .5537284
FA	.3985834	.1692392	2.36	0.009	.065733 .7314339
LEV	-.2946214	.0415305	-7.09	0.000	-.3763014 -.2129414

DPO	-.2025003	.0471202	-4.30	0.000	-.2951737	-.1098269
CE	.2865355	.0588071	4.87	0.000	.1708769	.4021941
LIQ	.4197957	.0375774	11.17	0.000	.3458904	.4937009
_cons	-2.353038	1.439256	-1.63	0.103	-5.183688	.4776119

sigma_u .81676471
sigma_e .8956562
rho .45402742 (fraction of variance due to u_i)

F test that all u_i=0: F(39, 351) = 6.22 Prob > F = 0.0000

Random-effects GLS regression	Number of obs =	400
Group variable: firmid	Number of groups =	40

R-sq: within = 0.4992	Obs per group: min =	9
between = 0.2156	avg =	9.9
overall = 0.3860	max =	10

corr(u_i, X) = 0 (assumed)	Wald chi2(6) =	346.64
	Prob > chi2 =	0

ROA	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]
FS	-1.072338	.540633	-1.98	0.047	-2.131959 -0.01272
FA	.1832834	.1221344	1.50	0.133	-.0560957 0.422663
LEV	-.2653084	.0377864	-7.02	0.000	-.3393684 -0.19125
DPO	-.1896438	.0444992	-4.26	0.000	-.2768606 -0.10243
CE	.2295695	.0493496	4.65	0.000	.132846 0.326293
LIQ	.4093927	.0362966	11.28	0.000	.3382527 0.480533
_cons	-1.107375	1.053061	-1.05	0.293	-3.171337 0.956588

sigma_u .6326881
sigma_e .8956562
rho .3328866 (fraction of variance due to u_i)

Model 3

Fixed-effects (within) regression	Number of obs =	400
Group variable: firmid	Number of groups =	40

R-sq: within = 0.6555	Obs per group: min =	9
between = 0.2649	avg =	9.9
overall = 0.4862	max =	10

corr(u_i, Xb) = -0.3778	F(7,350) =	95.12
	Prob > F =	0.0000

ROA	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]
-----	-------	-----------	---	-----	----------------------

FS	-2.277962	.599074	-3.80	0.000	-3.456199	-1.099724
FA	-.0619255	.1459007	-0.42	0.672	-.3488779	.2250269
LEV	-.2376791	.034933	-6.80	0.000	-.3063842	-.1689741
DPO	-.284563	.0398429	-7.14	0.000	-.3629246	-.2062015
CE	.328858	.0491565	6.69	0.000	.2321788	.4255372
LIQ	.1612926	.037599	4.29	0.000	.0873442	.2352409
BC	.4856192	.0390353	12.44	0.000	.4088458	.5623925
_cons	1.464057	1.23878	1.18	0.238	-.9723325	3.900446

sigma_u .7985694
sigma_e .74687827
rho .53340997 (fraction of variance due to u_i)

Fixed-effects (within) regression Number of obs = 400
Group variable: firmid Number of groups = 40

R-sq: within = 0.6639 Obs per group: min = 9
between = 0.2627 avg = 9.9
overall = 0.4825 max = 10

corr(u_i, Xb) = -0.4092 F(8,349) = 86.18
Prob > F = 0.0000

MODEL 4

ROA	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
FS	-2.464932	.5958747	-4.14	0.000	-3.636889	-1.292975
FA	-.0886718	.1445876	-0.61	0.540	-.3730446	.1957009
LEV	-.2384454	.0345521	-6.90	0.000	-.3064019	-.1704889
DPO	-.2989011	.0397032	-7.53	0.000	-.3769888	-.2208134
CE	.334395	.048655	6.87	0.000	.2387012	.4300889
LIQ	.1996562	.0393772	5.07	0.000	.1222098	.2771026
BC	.318356	.0683883	4.66	0.000	.183851	.4528611
LIQ_BC	-.0394763	.0133224	-2.96	0.003	-.0656786	-.013274
_cons	2.151394	1.247001	1.73	0.085	-.3011885	4.603976

sigma_u .82469815
sigma_e .73871283
rho .55483268 (fraction of variance due to u_i)

Fixed-effects (within) regression Number of obs = 400
Group variable: firmid Number of groups = 40

Rvvv-sq: within = 0.6771 Obs per group: min = 9
between = 0.2636 avg = 9.9
overall = 0.4870 max = 10

corr(u_i, Xb) = -0.4236 F(9,348) = 81.08
 Prob > F = 0.0000

Model 5

Fixed-effects (within) regression Number of obs = 400
 Group variable: firmid Number of groups = 40

R-sq: within = 0.6701 Obs per group: min = 9
 between = 0.2532 avg = 9.9
 overall = 0.4745 max = 10

F(9,348) = 78.55
 corr(u_i, Xb) = -0.4369 Prob > F = 0.0000

```
-----+-----
      ROA |   Coef.   Std. Err.      t    P>|t|   [95% Conf. Interval]
-----+-----
      FS | -2.572278   .5926644   -4.34   0.000   -3.737933   -1.406623
      FA |  -.12758   .1442505   -0.88   0.377   -.4112925   .1561326
      LIQ |  .1932841   .0391461    4.94   0.000   .1162914   .2702769
      LEV | -.2766789   .0373877   -7.40   0.000   -.3502132   -.2031447
      DPO | -.2982828   .0393913   -7.57   0.000   -.3757577   -.2208079
      CE |  .3435721   .0484045    7.10   0.000   .24837   .4387742
      BC |  .3727013   .0710884    5.24   0.000   .2328843   .5125183
  LIQ_BC | -.0383425   .0132249   -2.90   0.004   -.0643533   -.0123318
  LEV_BC |  .0265602   .0103674    2.56   0.011   .0061695   .0469508
   _cons |  2.44767   1.242573    1.97   0.050   .0037732   4.891567
-----+-----
sigma_u | .85501183
sigma_e | .7328945
   rho | .57645246 (fraction of variance due to u_i)
-----+-----
```

F test that all u_i=0: F(39, 348) = 9.32 Prob > F = 0.0000

. xtreg ROA FS FA LIQ LEV DPO CE BC LIQ_BC LEV_BC DPO_BC, fe

Model 6

Fixed-effects (within) regression			Number of obs = 400			
Group variable: firmid			Number of groups = 40			
R-sq: within = 0.6808			Obs per group: min = 9			
between = 0.2559			avg = 9.9			
overall = 0.4801			max = 10			
F(10,347) = 74.01						
corr(u_i, Xb) = -0.4438			Prob > F = 0.0000			
ROA	Coef.	Std.Err.	t	P>t	[95% Conf.	Interval]
FS	-2.838413	.5890495	-4.82	0.000	-3.996969	-1.679856
FA	-.1740755	.1427577	-1.22	0.224	-.4548547	.1067037
LIQ	.1695271	.0391894	4.33	0.000	.0924485	.2466057
LEV	-.2579347	.0372402	-6.93	0.000	-.3311796	-.1846899
DPO	- .1919438	.049809	-3.85	0.000	-.2899093	-.0939783
CE	.3265622	.0479448	6.81	0.000	.2322631	.4208612
BC	.114333	.1032502	1.11	0.269	-.088742	.317408
LIQ_BC	-.0139341	.0148696	-0.94	0.349	-.0431799	.0153118
LEV_BC	.0208009	.0103521	2.01	0.045	.0004401	.0411618
DPO_BC	-.0769831	.0226064	-3.41	0.001	-.1214459	-.0325204
_cons	3.495972	1.262191	2.77	0.006	1.013464	5.978479
sigma_u	.86049868					
sigma_e	.72198474					
rho	(fraction of variance due to u_i)					
	.58686397					
F test that all u_i=0: F(39, 347) = 9.53			Prob > F = 0.0000			

Model 7

Fixed-effects (within) regression
Group variable: firmid

Number of obs = 400
Number of groups = 40

R-sq: within = 0.6848
between = 0.2495
overall = 0.4825

Obs per group: min = 9
avg = 9.9
max = 10

F(11,346) = 68.34
corr(u_i, Xb) = -0.4334 Prob > F = 0.0000

ROA	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
FS	-2.771556	.5870757	-4.72	0.000	-3.926242	-1.616869
FA	-.2016767	.1426798	-1.41	0.158	-.4823055	.0789521
LIQ	.1726455	.0390286	4.42	0.000	.0958823	.2494087
LEV	-.2596224	.0370691	-7.00	0.000	-.3325316	-.1867133
DPO	-.2176051	.051064	-4.26	0.000	-.3180399	-.1171702
CE	.1212575	.1091308	1.11	0.047	-.0933857	.3359008
BC	.39014	.1671611	2.33	0.020	.0613602	.7189198
LIQ_BC	-.0175999	.0149012	-1.18	0.238	-.0469082	.0117084
LEV_BC	.0197249	.010315	1.91	0.057	-.0005631	.0400128
DPO_BC	-.0591052	.024066	-2.46	0.015	-.1064392	-.0117712
CE_BC	.1344539	.0642769	2.09	0.037	.0080313	.2608764
_cons	3.045097	1.274455	2.39	0.017	.5384425	5.551752

sigma_u .85599683

sigma_e .71849845

rho .58666759 (fraction of variance due to u_i)

F test that all u_i=0: F(39, 346) = 9.66 Prob > F = 0.0000

Appendix V: University Authorization Letter


MOI UNIVERSITY
POSTGRADUATE OFFICE
SCHOOL OF BUSINESS AND ECONOMICS

Tel: 0790940508
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P.O. Box 3900
 Eldoret.
 Kenya.

RE: SBE/DPHIL/BM/021/16 DATE: 6th February, 2020

TO WHOM IT MAY CONCERN

RE: CORNELIUS KIPKEMEI KURERE – SBE/DPHIL/BM/021/16

The above named is a bonafide student of Moi University School of Business and Economics, undertaking a Doctor of Philosophy in Business Management degree.

He has completed coursework, defended his proposal, and is proceeding to the field to collect data for his research titled: **"Financial Flexibility, Board Capital and Financial Performance of Listed Firms at Nairobi Securities Exchange in Kenya."**

Any assistance accorded to him will be highly appreciated.

Yours faithfully



DEAN
 School of Business and Economics
 MOI UNIVERSITY

DR. RONALD BONUKE
AG. DEAN, SCHOOL OF BUSINESS & ECONOMICS.

Appendix VI:Nacosti Research Permit

 REPUBLIC OF KENYA	
Ref No: 672228	Date of Issue: 16/March/2020
RESEARCH LICENSE	
	
This is to Certify that Mr.. CORNELIUS KIPKEMEI KURERE of Moi University, has been licensed to conduct research in Nairobi on the topic: FINANCIAL FLEXIBILITY, BOARD CAPITAL AND FINANCIAL PERFORMANCE OF LISTED FIRMS AT NAIROBI SECURITIES EXCHANGE IN KENYA for the period ending : 16/March/2021.	
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