EFFECT OF FINANCIAL LEVERAGE ON STOCK RETURNS FOR COMPANIES LISTED IN NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

I pronounce that I personally developed the project it and is not a copy of any other work submitted to any institution for assessment.

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DEDICATION

I devote this work to my family who encouraged and given me support throughout the process. I will always appreciate them.

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LIST OF ABBREVIATIONS

BV	Book Value
CAPM	Capital Asset Pricing Model
CBK	Central Bank of Kenya
CMA	Capital Markets Authority
GEMS	Growth Enterprise Market Segment
MV	Market Value
NSE	Nairobi Securities Exchange
NYSE	New York Stock Exchange
PAT	Profit After Tax
PV	Present Value
ROA	Return on Assets
TA	Total Assets
TSE	Tunisia Stock Exchange
VIF	Value Inflation Factor
ZSE	Zimbabwe Stock Exchange

ABSTRACT

Finance operations of an entity are financed by debt, equity and internally generated funds which make up the capital structure of an entity. Equity are funds which are contributed by the owners of an entity. Equity comprises of retained earnings and share capital. Debts are funds which are contributed by creditors of an entity. Debt is a liability to an entity that has borrowed the funds since they have an obligation to make payment ones it matures. This study therefore assessed the influence of financial leverage on stock returns for companies listed in Nairobi Securities Exchange. From a target population of 47 non-financial companies listed at NSE, the researcher utilized descriptive research approach. Data was retrieved from yearly financial statements and reports for non- financial entities listed between the years 2012 to 2017 for analysis. Full data was however obtained from 38 firms making up a rate of response of 80.85%. The 80.85% rate of response was considered adequate for the study. It was uncovered that leverage has positive linkage with stock returns for firms recorded at NSE anyway the alliance was not basic. Further, the association between firm size and stock returns was negative and not quantifiably noteworthy. Generally, profitability and returns demonstrated a significant and positive association for the organizations listed at NSE. The recommendation of this study is that board of directors for listed non-financial firms ought to ensure they have optimum debt levels so that the entity remains solvent. In addition, management of listed entities should ensure they invest in fixed assets to enhance size of their organizations and gain the benefits of economies of scale. Further management of listed non-financial entities should focus on increasing profitability of their firms for enhancing the entities share value and shareholder's wealth.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Financing operations for any entity are financed by debt, equity and internally generated funds which make up the capital structure of an entity. Equity are funds which are contributed by the owners of an entity. Equity comprises of retained earnings and share capital. Debts are funds which are contributed by creditors of an entity. Debt is a liability to an entity that has borrowed the funds since they have an obligation to make payment ones it matures. Brealey, Myers and Allen (2011) note that an entities composition of different variety of capital is referred to capital structure. Mizra et al (2016) notes that capital structure is the financial muscle of an entity. Mehta (2014) notes that the key objective of any entity is to see their shareholders' wealth grow through maximization of shareholders returns. Mehta (2014) notes that the debt as a source of finance pushes earnings per share upwards which in turn leads to earnings per share.

Given that capital is a key component in any entity and could be obtained in diverse ways, capital has become a key topic for discussion. Several theories with regards to capital structure have been developed. They include ModiglianIi and Miler theorem of 1958 which noted that an entity with high level of debt will be much riskier for investors to own their stock and due to this investors should be compensated for in terms of high returns. The theory of pecking order by Myers and Majfluf (1984) note that entities prefer a certain mode of raising funds. As per agency theory postulated by Jensenn and Mekling (1976) they note that entities that take up debt will have a high value due to the restrictions put in place by the debt holders to monitor the managers.

1.1.1 Financial Leverage

Leverage is the fraction of capital structure for a firm represented by liability. Financial Leverage is a component of the statement of income. Leverage can fall into either operational or financial (Mizra et al 2016).According to Mizra et al (2016) financial leverage consists short run debt, long run debt and operational leases. Sturesson et al (2017) notes that financial leverage is the debt amount that has been used to finance entities assets. Managers in organizations use financial leverage to fund operations of an entity instead of issuing out equity. This is because debt is more advantageous than equity and it's because of this that Managers are geared towards increasing shareholders returns.

The advantage of financial leverage is that it is allowable for tax purposes. This means that an entity ends up paying less tax on their profit. Mizra et al (2016) note that uptake of debt in an entities capital structure leads to increase in financing that leads to growth and expansion. Myers (1984) notes that due to lack or limited cash flows entities use financial leverage to obtain needed capital to finance investments. Sturesson et al (2017) mote that disadvantage due to use to financial leverage can occur if the operations of an entity are not profitable and they are unable to pay back the debt.

Financial leverage has been measured through a set of metrics. Leverage metrics are key given that they assist in comparing the costs and returns of funds for both debt and equity. Thus, leverage metrics enable one determine the earnings power an entity expects from borrowing when the entity is performing properly. In addition leverage metric indicate how an entity loses earnings when the entity is performing dismally. Key financial metrics that are used to determine performance of financial leverage include; Total debt to asset ratio which enables one identify what proportion of an entities total funding has been provided

by creditors. The total liability to equity and long-term debt to equity ratio assessed the equity of an entity is able to safeguard the creditors in case the business fails. However, total debt to equity is much comprehensive since it portrays a more conservative view of the creditor's position. Times interest earned is used to measure whether the entity is able to service its debt if there is a decrease in its earnings.

1.1.2 Stock Returns

Stock refers to ownership in an entity. Two types of stock include; common stock and preferred stock. Common stock holders are entitled to earnings in proportion of their shareholdings in terms of dividends. However, preferred stock consist of both properties of stocks and bonds. Preferred stock consists of a fixed charge which leads to increase in an entity's financial leverage. In addition preferred stock owners are entitled to a dividend which is a percentage of the value of the preferred stock. However, preferred stock holders are entitled to pay of dividends before the common stock holders are paid.

Stock returns refer to gains or losses due to stock prices fluctuations from time to time. In addition, stock returns also factors in dividend payouts. Previous studies done have provided different definitions of stock returns. Arditti (1967) postulates returns as geometric means of returns. Bhandari (1988) refers to stock returns as returns adjusted for inflation. Muradogu and Sivaprasa (2010) in their study of empirical test of leverage and stock returns define stock returns as equity returns exceeding risk free rate.

Performance measures used in NSE consist of the stock market index, market capitalization and stock turnover. A stock market index measures the value of group of stocks. As prices of stock that are part of the group changes the value of the index also changes. Thus, if an

index increases by 1% then the value of the stocks that are part of the index also increase by1%.In general an index summarizes hundreds of price movements (Odera, 2000).

Market capitalization refers to measure of size of an entity which is equivalent to the stock price trading at a given point in time times the number of stocks outstanding. Market capitalization portrays the public opinion for a net worth and it is an important component in determining an entity's stock valuation. CMA refers market capitalization as an estimate of an entity's value based on future prospects, monetary and economic conditions. Market turnover is the total worth of stock traded in a stock exchange in a particular day, month or year. It is computed by multiplying the number of stock traded with their individual prices.

1.1.3 Financial Leverage and Stock Returns

Leverage effect demonstrates an entities ability to deliver equity return by surpassing the rate of return on capital invested in an entity (Quiry *et al*, 2005). When an entity borrows debt and invests it in its operations it will generate operating profit which will exceed the interest expense. The surplus generated by the entity is the return on capital minus cost of debt. Thus, shareholders of an entity are entitled to the surplus which is added to the shareholders equity. At a suitable level of financial leverage an entity's equity returns goes up given that the application of leverage pushes up stock volatility increasing stock returns.

An amount theories and research have been made to explain the relationship between an entities level of leverage and return on stocks. Hall et al (1967) takes returns to be profit after tax and measures leverage using the book value to equity to assets ratio. However in his study Hall et al (1967) found that leverage and stock returns inversely relate. Bhandhari (1988) uses stock returns that have been adjusted for inflation in studying the impact of

stock returns and leverage. He notes stock returns increase with leverage. Pennan et al (2006) breakdown price to book ratio into two (2) groups i.e. Into business actions and financing activities. They noted that return to stock and the leverage component were inversely related. They argue stock returns and leverage are negatively associated and this helps in determining leverage pricing.

1.1.4 Nairobi Securities Exchange

The Nairobi Securities Exchange (NSE) began its operations in 1920 however in an informal capacity given that there were no trading rules. During this period, accountants, lawyers among others conducted stock broking. Francis Drummond, in 1951, established the first professional stock broking. The constitution of NSE was a non-compulsory association of stock brokers in 1954 that were then legalized under the societies act. In 1963 after the attainment of independence is when the African and Asian communities were permitted to trade at NSE.

Some of the major events at the NSE include privatization of the Kenya Commercial Bank in 1988 through a sell of 20% stake held by the government of Kenya to the public. The NSE 20 share index recorded the highest score of 5030 points on 18 February 1994.This made it one of the best performing stock markets globally. Growth Enterprise Market Segment (GEMS) was launched by NSE on 22 January 2013.Thus; this gave an opportunity to small and medium enterprise entities and opportunity to list and access capital on the NSE.

As at 05 June 2018 there were 64 entities listed at the NSE. The entities had been divided into 11 sectors. Entities under the banking sector are the ones that offer leverage and debt

services to the other non-finance entities hence they have been excluded from this study. The 53 Non-Monetary entities tabulated in the NSE will be essential in this study since they will provide core information that includes financial leverage, size and liquidity that will be used to realize the leverage and stock returns correlation.

1.2 Research Problem

An entity deployment of debt in its capital structure is not considered severe given that it leads to increase of available financing that can be used to support growth and expansion. The advantage of using debt is that the entity is able to create revenue in comparison to the cost of debt financing hence it will be able to service its debt commitments. However, there have been cases where entities have used debt in their capital structure to finance their operations, increase revenues /profit but this has not been the case with some entities ending up being insolvent. Several researchers have carried out studies with respect to leverage and stock returns with mixed and contradictory outcomes.

Adami, Orla, Muradoglu, Sivaprasad (2010) studied the connection between abnormal earnings and leverage and noted that former decreased with increase in firm leverage. Mirza, Rahat and Reddy (2016) noticed that there was no help with respect to CAPM hazard premium. Also, they found solid significance of significant worth, size and element monetary hazard premium on stock returns. Anderson (2016) revealed leverage and stock returns for entities recorded at the Swedish Stock Exchange are negatively related. In their examination concerning impact of influence on stock comes back with respect to 2,673 entities recorded at London Stock Exchange, Muradogu and Sivaprasa (2010) noticed that there was a positive connection among influence and stock returns for entities in the utilities part and a negative relationship in different segments. Acheampong, Agalga and

Shibu (2014) in their investigation on impact of budgetary influence and stock returns for entities recorded at the Ghana Stock Exchange, noticed that there exists a negative relationship among influence and stock returns for the entire business information. Anyway at the individual substance there is a positive affiliation while in others there was a negative affiliation. Barasa (2012) considered the effect of influence on stock comes back concerning 59 entities recorded by the NSE from 2002 to 2011.The result of the investigation was influence negatively affected stock returns. Because of various results on effect of budgetary influence on stock returns and not many investigations completed in Kenya and rising economies the analyst chose to look into on how leverage affects stock returns for firms listed at NSE?

1.3 Research Objective

To evaluate the impact of financial leverage on stock returns for companies listed in Nairobi Securities Exchange.

1.4 Value of the Study

Investors-Investors will have an understanding on whether they will get higher returns should they invest in companies that have leverage. In addition it will enable them understand what the impact of leverage will have on the companies they have invested in.

Analysts-The study will assist analysts to make proper interpretations with regards to performance of companies that have leverage in their capital structure and whether it affects stock returns.

Creditors-The study will assist creditors to determine whether the entities to which they have advanced credit are able to pay. In addition it will enable them determine whether the credit advanced has any significant impact on an entities operations and value.

Government and Policy institutions-The study will assist the government and policy institutions like Central Bank of Kenya (CBK) come up with stands that have a favorable impact on cost of credit. This is because any adverse decisions with regards to cost of credit will lead to higher costs of credit and this will prevent entities from borrowing impacting the entity's value negatively.

Managers-The study will help managers to determine when is the appropriate time to borrow in order to finance entities activities. In addition it will assist them to identify the impact of debt on shareholders wealth since they represent the interest of shareholders in an entity.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter narrates various studies and theories carried out in the past with regards to leverage and stock returns. It consists of the theoretical review, empirical review, and stock returns determinants, conceptual framework and conclusion.

2.2 Theoretical Review

This section outlines what has been done by researchers and academicians in relation to financial leverage and stock returns and the theories that provide the support including; Modigliani Miller theorem, Agency theory, Trade-off theory, Market timing theory and Pecking order theory. Further, earlier studies conducted are presented since they formed the structure within which the findings of this study were interpreted.

2.2.1 Modigliani-Miller Theorem

Modiglian & Miler (1957) proposition one (1)came up with a seminal paper on capital cost, corporate valuation and capital structure where they discussed the aspect of capital structure and its effect on estimation of an entity. In their study they came up with a number of assumptions that; Capital markets are frictionless. It assumes that investors can easily access all relevant information. In addition, there is no existence of floatation and other transaction costs and that no single investor is able to contribute to changes in market price of a particular share.

They also presumed that companies and individuals can borrow and lend at limitless amounts using peril free rate. This is based on the proposition that investors are able to purchase securities on margin then their effective interest rate may be the same as that of a firm. Thus, in the real world if an entity has the ability to borrow funds at a lower rate than the ones individuals have then the value of the entity will increase with leverage. However, this is not the case in a world with no taxes as opined by ModiglianIi and Miler proposition one.

Modiglian and Miler (1957) noted that bankruptcy costs do not exist. This is because the costs will be borne by entities shareholders there exists incentives for an entity to minimize the debt levels that exist in its capital structure. They added that the only government levies that exist are corporate taxes and there are no personal taxes. Thus, in the real world presence of taxes is advantageous to an entity since debt level and value are positively related. This is on the grounds that intrigue installments are passable for duty purposes and an expansion in the red prompts a decrease in charges and simultaneously prompts increment in the entities esteem.

Proposition one (1) of ModiglianIi and Miler theorem noted that value of a levered entity, when taxes are zero, is equal to the unlevered entity value. As per ModiglianIi and Miler (1957), in absence of taxes, capital structure does not contribute to firm performance. Thus:

VL =Vu if T=0

Where:

VL=Value of the levered entity

Vu= Value of the unlevered entity

T=Taxes

ModiglianIi and Miler (1963) with corporate taxes indicates that value of a levered entity is equivalent to the value of unlevered firm plus the tax shield. Thus,

VL=Vu + Vbt

Where:

VL=Value of the levered entity

Vu = Value of the unlevered entity

bt= Tax shield

As per ModiglianIi and Miler (1963) proposition two (2) introduction of corporate taxes leads to the value of the entitiesto increase continuously as more debt is used. The highly geared an entity is the lower the cost of capital will be, leading to a higher value of the entity which will lead to the increase in shareholders wealth. The increase in shareholders wealth is due to tax shield given that the entity will receive tax relief on debt interest and hence pay less tax.

2.2.2 Agency Theory

Jensenn and Mekling (1976) conducted a study with regards to agency costs and its influence on capital structure. They noted that initially an entity will be owned by a sole proprietor. However, after a certain period of time the sole proprietor may decide to sell part of the entity in order to obtain additional funds to run the operations of the entity. The owners of the entity may decide to employ external parties to run their business on their behalf who in this case are called managers. According to Jensenn and Mekling (1976) in order to prevent management from mismanaging the funds of an entity the owners will incur costs to monitor the manager's actions. These costs are referred to as agency or

monitoring costs and an example of this cost include perquisites. Agency costs are incurred to keep the managers focused on optimizing the firm value.

Further, an entity may borrow in order to finance its operations. The financier in this case is the bond holder who is also a rational investor. As per the study of Jensenn and Mekling (1976) the bond holder will issue a number of covenants in order to prevent mismanagement of the funds by the managers and ensure that the debt is used for its intended purpose. Thus, use of debt for its intended purpose will lead the managers to maximize of the entities value. The relevance of the agency theory cannot be ignored in this study as listed companies are managed by agents who are appointed by shareholders to maximize their value. Thus, entities that are managed properly by their agents will be able to have higher returns compared to those that are not managed properly.

2.2.3 Trade-Off Theory

Myers (1984) came up with the hypothesis by extending the ModiglianIi and Miler theorem assumed there don't exist bankruptcy costs. However, this isn't the case given that firms experience bankruptcy which turns out to be costly due to high legal and accounting expenses. Birgham and Daves(2007).Bankruptcy is most likely to occur when an entity uses more debt in its capital structure (Birgham & Daves, 2007).

According to Myers (1984) entities trade off higher interest rates and bankruptcy costs against debt financing benefits. This is illustrated in the following equation as formulated by Brealey, Myers & Alen (2011).

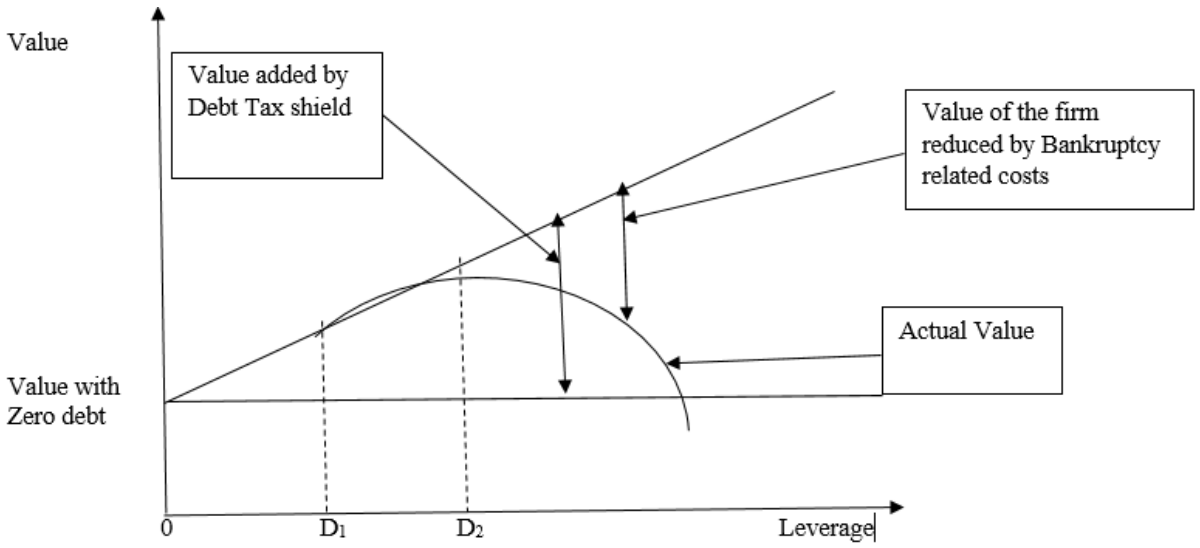
V=Ve+PV (Tax shield)-PV (Costs of Financial Distress)

Where:V=Value of the firm

Ve=Value of the firm if it is only financed by equity

PV=Present Value

Figure 2.1: Impact of Leverage on value of an entity



Source: Brealey, Myers & Alen (2011).

D1=Debt level at which Bankruptcy costs become significant

D2=Optimal capital structure

As per figure one (1) below D1 the debt level is very low hence minimizing the bankruptcy chances for the entity. Beyond D1 bankruptcy costs start to creep in which lead to reduction of tax benefits at an increasing rate. From D1 and D2there is a reduction of bankruptcy costs but they do not offset the benefits of the tax shield leading to increase in stock prices at a decreasing rate as debt ratio increases. Past level D2 bankruptcy costs out way costs of the tax benefits. Thus at this point an increase in debt ratio leads to a decrease in the value of the stock; hence D2 is the best point for leverage. The hypothesis proves its relevance since listed entities that take more debt than required may end up not achieving its benefits.

This in turn the value of the entity will decline and in turn will lead to the entity being bankrupt.

2.2.4 Pecking Order Theory

Myers & Majluf (1984) postulated the theory and noted that entities have a particular preference with regards to source of capital needed to finance their operations. According to this theory manager of these entities opts to first exhaust internal financing. However, in cases where internal financing inadequacy, the managers will decide to use other external sources of finance. Myers and Majluf (1984) note that Managers opts for debt and if not adequate they will issue out equity.

Pecking order theory notes that managers of an entity have more information about its importance, risks and future prospects than investors or creditors. This situation is referred to information asymmetry. Thus, if a creditor or investor has inadequate information about an entity they will demand for a higher compensation due to the risk they have taken. In addition to providing high compensation, the entities will be required to also incur agency costs such as payment of perquisites to Managers of the entity to ensure that they amplify the association's worth which in tandem with investors objective. In addition transaction costs form a major part of an entities capital structure decisions Chen (2009).Hence, transaction costs incurred in obtaining external financing are high than costs of internal financing. Thus, due to agency costs, transaction costs and making high compensation to investors makes use of internal financing cheaper than use of external sources.

Managers of an entity prefer debt to equity given that equity’s cost exceeds debt cost. In addition use of debt leads to escalation in proportion of debt in an entities capital structure

which will enable it enjoy benefits of tax shield leading to a reduction in its weighted average cost of capital (WACC). Since entities operate in an environment that is similar to the pecking order, proves its relevance to the current study. Thus, managers of entities will at one point in time use debt, a source of external finance to finance their operations and investments in order to improve an entities performance which in effect may have an impact on its returns.

2.2.5 Market Timing Theory

Baker & Wurgler (2002) developed the study with regards to capital structure and market timing. They found that there were three types of studies that outline evidence of market timing. The first one is that entities prefer issuing out equity in place of debt when the value of the market is high. Furthermore, the investrors' interest about expected earnings triggers firms to issue equity.

The significant discovering as per the investigation led by Baker& Wurgler (2002) is that entities with low influence are the ones that looked for reserves at the point when their market valuations were high in reference to market to book extent. While substances with high influence are the ones that searched for saves when their market valuation was insignificant. According to Baker and Wurgler (2002) leverage in their regression model as considered dependent on market share value. Results according to the regression model were that market share value and leverage are negatively related. Subsequently, they infer that past market valuations affect capital structure. Andersson (2016) notes that managers of entities are irrational in their behavior and in some instances. For example, the issuance of equity whenever the price of the stocks is high. This is due to the fact that they have more information about the performance of the entity than the investors of the entity.

Brealey, Myers and Allen (2011) note that debt and returns on stocks are negatively associated.

2.3 Empirical Review

2.3.1 Foreign Studies

Muradogu and Sivaprasa (2010) examined the impacts of influence on stock additions for 2,673 entities enlisted at London Stock Exchange from 1984 upto 2004. Muradogu and Sivaprasa (2010) developed on the ModiglianIi and Miler (1957) valuation model who led their examination on entities in the oil and gas enterprises while they concentrated on entities in all hazard classes. Furthermore, their definition for leverage mulled over incomes that has been created through utilization of obligation financing. Muradogu and Sivaprasa (2010) noticed that leverage and stock returns are positively related for entities in the utilities division at the Stock Exchange in London. In any case, for entities in different areas there was a backwards connection among influence and stock returns.

Acheampong et al; (2014) considered the obligation value proportion commitment on Stock Returns for stocks recorded at the Ghana Stock Exchange from Selected Stocks of five substances in amassing section from 2006 to 2010.Their examination saw a negative relationship among impact and stock returns in occasions where entire mechanical information was utilized. Notwithstanding, this was not the situation at the individual substance level given that they noted for four (4) entities leverage positively contributes to changes in stock returns and negatively contributes to stock returns for one (1) element.

Giacomini *et al* (2014) investigation focused on leverage and profitability for Public Real Estate comapnies in eight (8) nations for the period 2002 to 2011. They concentrated on

Real Estate entities given that entities in this division will in general utilize more obligation and furthermore variety in capital structures for Real Estate entities in the eight nations. The discoveries of the examination noted that leverage contribution to profits was significant.

Öztürk & Yılmaz (2015) researched how leverage contributes to stock profits with a focus on 183 nonfinancial entities recorded at Istanbul Stock Exchange from 2003 to 2016.In their model Öztürk and Yılmaz (2015) utilized market hazard premium (Rm-Rf), Market Value/Book Value (MV/BV), Market Value/Total Assets (MV/TA) as free factors and month to month stock returns as reliant factors. Öztürk and Yılmaz (2015) clarify that the influence in their model is represented by MV/BV and MV/TA given that all out resources and book esteem distinction is alluded to use. It was discovered that leverage affects stock returns. Öztürk and Yılmaz (2015) likewise note that entities with insignificant value/value proportion have better yields and stocks with low leverage have a prevalent presentation than ones with high leverage at Istanbul stock trade.

Abdullah *et al* (2015) considered leverage, market share and their contribution to changes in stock returns for five (5) entities in the manufacturing firms listed in the Dhaka Stock Exchange, Bangladesh. Their investigation was for a time of five years from 2008 to 2012.The investigation noticed that leverage and stock returns exhibited negative association. Abdullah et al (2015) noticed that at the individual firm level there existed a negative connection for leverage and stock returns for four (4) entities and positive connection for one (1) substance.

Anderson (2016) did leverage impact on stock returns for firms listed at the Stockholm Stock Exchange. In her examination, she regressed stock returns for the period 2006 to 2015 against leverage which was named aggregate, short and long term obligation. The results revealed leverage and stock returns have negative association. According to Anderson (2016) she noticed that investors for listed entities in the Stockholm Stock Exchange are insensitive to high risks associated with high returns.

2.3.2 Local Studies

Barasa (2012) explored changes in stock returns attributable to leverage by focusing 59 entities listed at NSE for the period 2002 to 2011.Baraza(2012) used the Fama & French(1993) three factor model in analyzing findings. According to the results, leverage contributed negatively on stock returns. Further, firm size was found not to have critical impact on performance of the firms.

Banafa et al (2015) evaluated changes in profitability by listed non-financial firms in Kenya attributable to leverage. Their investigation concentrated on 42 non-monetary entities listed at NSE for 5-year period (2009-2013). The research utilized debt to equity proportion as a proportion of leverage and net benefit after expense (PAT) AND ROA as proportion of performance. Negative association between leverage and financial performance was revealed.

Ogilo and Muiva (2015) looked into on appropriateness of entities basics in clarifying stock returns of non-monetary elements listed at NSE. Their examination was on 44 non-money related elements listed at NSE from 2004 to 2013.The variables utilized by Ogilo and Muiva (2015) were change in absolute resources, change in salary and change in leverage.

The revelations of their examination was that there is a weak positive association between stock returns and every outer asset while there was a negative connection between change in absolute income, change in leverage and stock returns.

Mohamed (2016) looked into on impact of leverage on profitability for non-financial institutions listed at NSE concentrating on 48 institutions for the period 2011-2015. The research measured performance by Return on Assets (ROA) while leverage was estimated utilizing proportion of external debt and found existence of negative association between the two variables. Likewise, the investigation found that size of affected the returns of the firms.

Mwaurah, Muturi and Waititu (2017) evaluated how financial risks contribute to changes in stock returns for nine (9) banks listed at NSE for the period 2006 to 2015. Credit, market, capital and liquidity were used as measures for financial risk. Their examination concentrated on two viewpoints individual impact and aggregate impact of budgetary hazard on stock returns. The examination acknowledged there is a positive association between fiscal danger and stock return for individual banks.

2.4 Determinants of stock returns

2.4.1 Firm Size

Firm size has been perceived to influence stock returns of an entity by a number of researchers. However, different approaches have been used to measure the size of an entity with the common measure being the total assets which has been used with regards to determining the size of an entity. Shafana et al (2013) noted that according to empirical findings firm size posed no effect on stock returns.

Fama & French (1992) provided reason to feel ambiguous about the Capital Asset Pricing Model (CAPM) in deciding stock return. They noticed that the size of an entity contributes to growth in stock returns. In their examination, they noticed that little firms have significant yields. Mazviona (2014) discovered that size of an entity contributes positively but insignificantly to growth in stock returns at the Zimbabwe Stock Exchange (ZSE).

2.4.2 Profitability

Profitability refers to capability of a business entity to consistently sustain profits annually (Giacomini et al., 2014). Profitability is a term used to refer to the ability of banks to make revenues from its day to day business operations as well as from its investments in various sectors of the economy (Mizra et al., 2016).Profitability means that the business total revenues outstrips its total costs. It reveals the efficiency of business management in utilizing the firms' resources (Dalgaard, 2009). Profitability indicates the competitiveness of an industry as well as the effectiveness of their top-level management. Profitable firms attract external investors as well as quality employees who improve their performance even further.

A profitable entity absorbs the economic shocks experienced in the business world and protects these institutions from collapsing during hard economic times (Dalgaard, 2009). Profitability indicates management efficiency as it's usually used to compare them to other banks. In order for firms to post positive returns, they have to overcome many huddles like risks associated with business operations and management strategy employed to gain an edge over its competitors (Giacomini et al., 2014). The common ratios used in measuring profits are; ROA, ROE and NPM. ROA is the most used of firms profitability since it measures the management efficiency in using assets to generate revenues.

2.4.3 Market to Book Ratio

The market to book ratio (MV/BV) is a metric used to compare the market value of an entity with its book value. Market value is obtained through multiplication of prevailing market price of entities shares with shares aggregation existing at a particular point in time. Book value is what remains after an entity has disposed of its assets and paid all of its liabilities. The MV/BV indicates whether the shares of an entity have been overvalued or undervalued.

Several researchers have performed studies in regards to impact of MV/BV on stock returns. Fama & French (1992) explored the relation between size and book to market factors in income and returns for substances recorded at the New York Stock Exchange (NYSE) 1963 - 1992.They noted that entities with high MV/BV have high returns and that they are financially distressed given that investors in these entities will demand a high risk premium in order to invest in their stocks. Oliech (2002) studied the size, book to market value and returns association for entities quoted in the NSE between the years 1996 to 2000. The investigation discovered absence of connection between book to market value proportion and stock returns. Oliech (2002) discovered that entities with low P/E proportion significantly affected stock returns and that offers with high MV/BV proportion have better yields than shares with low MV/BV proportion.

2.5 Conceptual Framework

This segment subtleties the applied system which incorporates both the indicator and reaction factors. The indicator variable for the model is monetary influence while the

control factors are firm size and gainfulness. The reaction variable will be stock returns while the indicator variable will be budgetary leverage.

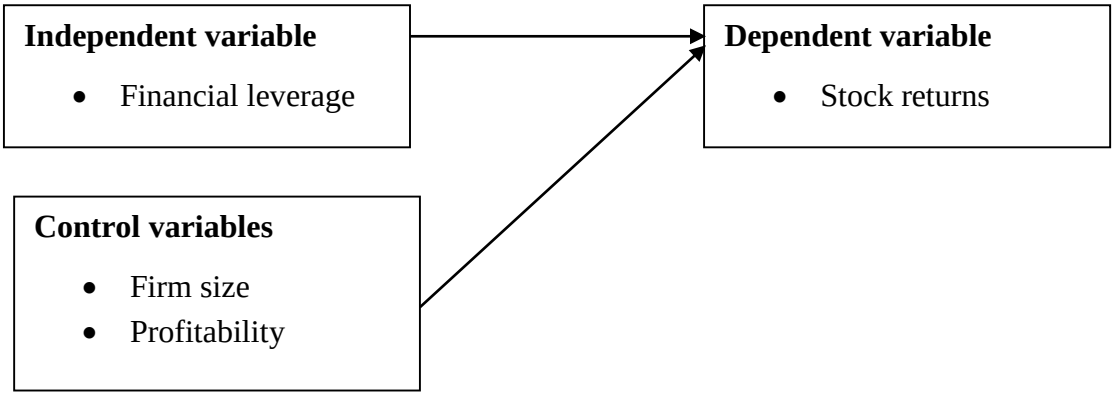
Ahmad, Bashir and Zakaria (2013) conducted a study with regards to co-determinants of capital structure and stock returns for 100 nonfinancial firms listed at the Karachi Stock Exchange. Inclusion of size, profitability and leverage in their model was based on the premise that, Investors who have invested in entities that have leverage will demand higher returns due to increase in risk of bankruptcy. Thus, leverage is supposed to have a positive influence on stock returns. With regards to size of an entity small entities suffer from depressed earnings and difficulty in accessing information about them which is riskier than large entities.

Therefore, speculators will request significant yields on their offers (Gallizo& Salvador, 2006).Thus; this may prompt firm size and stock returns inverse association. Ahmad, Bashir and Zakaria (2013) note that there exists negative connection among benefit and stock returns according to past observational investigations that have been done given that there is less hazard in fluid stocks. Along these lines according to Ahmad, Bashir and Zakaria (2013) inquire about they noticed that productivity negatively affects stock returns and that leverage contribution on stock return changes is a lot higher than impact of stock profit for influence. In any case, they note that firm size significantly has no influence on stock returns.

Berggren & Bergqvist (2014) led an exploration on how capital structure and returns influence each other with respect to 50 Swedish Companies. They received a similar model as utilized by Ahmad, Bashir and Zakaria (2013).They noticed that size, influence and

benefit positively affect stock returns. Salamat and Mustafa (2016) in their examination with respect to capital structure contribution to stock returns at the Amman stock trade. They noticed that equity and stock returns related positively and significantly while size of the firm stock returns association was negative and insignificant. Along these lines, according to experimental examinations the control factors, for example, size and benefit cannot be disregarded since they certainly affect the stock returns.

Figure 2.2: Conceptual Framework



Source: Author (2018)

2.6 Summary of Literature

The section outlines theories, studies done with regards to leverage contribution to stock returns. International and local empirical studies were for the period 2008 to 2017.Studies by Acheampong *et al;*, (2014),Anderson (2016),Abdullah et al (2015) noted leverage and stock returns negatively relate. Research conducted by Muradogu and Sivaprasa (2010),Giacomini, Ling and Naranjo (2014), Öztürk and Yılmaz (2015) established leverage and stock returns positive association.

Locally there has been insignificant research concerning leverage and stock returns at the NSE. Most examinations have concentrated on impact of influence on money related execution. The latest investigation with respect to impact of influence and stock returns was led by Baraza (2012) that prominent there was a negative relationship among influence and stock returns. Moreover research done locally have not concentrated on relationship of influence and stock comes back concerning a specific industry.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

A study methodology involves the logical theoretic exploration of the approaches used in a study. This chapter thus consists the study design, the procedure of collecting data, and the process of data analysis.

3.2 Research Design

Research design has been expounded by Kothari (2004) as the framework within which a research is done. Research design consists of what the researcher will do from coming up with a hypothesis, its implications and analysis of data. Thus, research design refers to the plan, structure and strategy of the research that determines alternative tools for problem solving. Quantitative research focuses on quantifying the association between variables (Sousa et al 2007). Sousa et al (2007) further indicate that quantitative research design is classified as non-experimental or experimental design. On-experimental design is used to examine associations between variables. Thus, descriptive correlation design was the research design that was preferred due to its ability to demonstrate association between variables through use of statistical analysis.

3.3 Population

Population for my study consists of 47 non-financial companies listed at the NSE. The sample in this study comprised entities listed in the NSE from the year 2012 to 2017.Any entity that has been suspended or delisted during this period shall not form part of the

sample. Financial entities are excluded from the research since they are the ones that offer leverage to non-finance entities.

3.4 Data Collection

Data sources included the yearly audited financial statements and reports for non- financial entities listed between the years 2012 to 2017.In addition, the secondary data consisted of daily closing stock prices of the listed non-financial entities which was then be converted to returns. Financial entities are excluded from the research since they are the ones that offer leverage to non-finance entities.

3.5 Diagnostic Tests

3.5.1 Unit Root Test

Unit root test was led in this examination so as to build up the stationarityof the factors. Stationary alludes to an occasion where the dispersion of a period arrangement stays consistent over a given timeframe. Unit root test is likewise key in discovering the request for joining of an arrangement. The unit root test was directed utilizing the Augmented Dickey Fuller (ADF) unit root.

3.5.2 Multicollinearity

Multicollinearity test helps to determine existence of multiple correlation of the study variables. In assessing multicollinearity and establishing whether there exists any violating predictor in the model, Variance Inflation factor (VIF) will be conducted.

3.5.3 Normality Tests

Normality refers to an instance where the data set consists of a normal distribution i.e. bell shaped curve. This examination looked to build up whether the relapse factors and somewhat the residuals met the suspicion of normality. The investigation utilized the Shapiro Wilk test involving skewness and kurtosis of the information to check what is normal from an ordinary dissemination.

3.5.4 Autocorrelation Tests

Autocorrelation test helps determine whether there is any disturbance term related to the previous disturbance term as indicated by Hurn, Martin and Yu (2015). Existence of autocorrelation indicates that the regression model excludes significant information. This study used the Durbin Watson test to identify whether autocorrelation exists.

3.6 Data Analysis

Pittsburgh (2017) defines data analysis as the ability to have crude numbers into significant data through utilization of balanced and basic reasoning. Information investigation may include computation of variable frequencies and the difference between variables. The objective of data analysis is to obtain evidence to either support or reject a hypothesis that has been formulated in the research process. In this study correlation analysis determined the degree of association between variables under study while regression analysis presented the association between the dependent and independent variables studied.

3.6.1 Analytical Model

The model utilized was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

Y=Stock returns which was measured by through use of simple stock returns and Y was calculated as follows;

$$R_{it} = Ln\ (\frac{P_{it}}{P_{t-1}})$$

Where

R_{it} = Stock return, P_{it} =price of stock i on day t, P_{t-1}=price of stock i on day t-1 and Ln = Natural log

β_0=constant term

β_1= Coefficient of financial leverage

β_2= Coefficient of firm size

β_3 = Coefficient of profitability

X_1=Financial leverage measured by dividing total debt over total assets

X_2= Entity size as measured by natural log of total assets

X_3=Profitability of an entity as measured using return on assets

ε= Error term

3.6.2 Test of Significance

The F-test coupled with t-test evaluated the significance of both the model and free factors where suitable. T-test inspected the noteworthiness of the logical factors though the F-test tried relapse condition essentialness.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1 Introduction

The part highlights analysis, findings and discussion of primary and secondary statistics used. During data analysis descriptive and inferential statistics were incorporated. Finally, an interpretation of the findings was given.

4.2 Response Rate

Population for the examination consisted of 47 non-financial companies listed at the NSE. The study sampled comprised entities listed in the NSE from 2012 to 2017. Complete data was however obtained from 38 firms making up a rate of response of 80.85%. The 80.85% rate of response was used.

4.3 Descriptive Statistics

Mean, minimum, maximum, standard deviation, skewness, the number of observations (N) and kurtosis were carried out in this section as outlined in Table 4.1 below.

Table 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Dev	Skewness	Kurtosis
Stock returns	190	-1.020	.904	-.04410	.365555	-.096	.076
Financial leverage	190	.000	.565	.15113	.154190	.881	-.177
Firm size	190	12.476	22.222	16.21285	1.946433	.561	.612
Profitability	190	-.567	.346	.03135	.125444	-1.330	2.023

Source: Research output (2018)

The results outlined above depicts mean value for stock returns as -0.04410 with lowest and highest values being -1.020 and 0.904 respectively. Further, financial leverage had an average value of 0.15113 and minimum of 0.000 which indicates that some firms did not have debt and a maximum value of 0.565 respectively. The findings indicate that the mean value for firm size is 16.21285 with minimum and maximum value of 12.476 and 22.222 while the average value for profitability was 0.03135, while -0.567 and 0.346 were the minimum and maximum values respectively. The skewness and kurtosis values were within the acceptable range of -3 and +3 which indicates that the data was normally distributed.

4.4 Diagnostic Tests

The study undertook a unit root test, multicolinearity test, normality test and test for autocorrelation whose results are presented under the model summary. The various diagnostic test results were as follows.

4.4.1 Unit Root Test

The Augmented Dickey Fuller (ADF) unit root test was employed to assess whether the variables were stationary or not as in Table 4.2.

Table 4.2: Unit Root Test

Variable		Test statistic (t)	Asymptotic p-value
Stock returns	Test with constant	-3.27539	0.01605
	With constant and trend	-5.70026	0.00000
Financial leverage	Test with constant	-6.0011	0.00000
	With constant and trend	-6.07367	0.00000
Firm size	Test with constant	-3.74559	0.003535
	With constant and trend	-3.7482	0.01928
Profitability	Test with constant	-7.47308	0.00000
	With constant and trend	-7.70178	0.00000

Source: Research Output (2018)

The Unit Root Test results above show that the study variables are stationary as proved by asymptotic p-values, which are less than 0.05. This indicates that the stationarity assumption has not been violated and the data is stationary.

4.4.2 Test for Multicolinearity

The variance inflation factors were used to assess for multicollinearity among the study variables. Table 4.3 outlines the multicollinearity findings.

Table 4.3: Multicolinearity Test

Variable	**Collinearity Statistics**	
	Tolerance	**VIF**
Financial leverage	.871	1.148
Firm size	.907	1.102
Profitability	.944	1.059

Source: Research Output (2018)

The multicollinearity test findings on table 4.3 show that all the variance inflation factors (VIF) lie with the range of 1 and 10 thus an indication that there is no multicollinearity among the study variables. Therefore, the assumption of multicollinearity has not been violated.

4.4.3 Normality Test

The Kolmogorov-Smirnov and Shapiro-Wilk test assessed normality of the research variables as depicted in Table 4.4.

Table 4.4: Normality Test

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**Df**	**Sig.**	**Statistic**	**df**	**Sig.**
Stock returns	.060	190	.097	.993	190	.463
Financial leverage	.064	190	.110	.873	190	.291
Firm size	.058	190	.200*	.973	190	.439
Profitability	.047	190	.187	.908	190	.327

Source: Research Output (2018)

Table 4.4 indicate that all the p values for stock returns, financial leverage, firm size and profitability both under the Kolmogorov-Smirnov and Shapiro-Wilk test are below 5% significance, implying that the variables follow a normal distribution.

4.5 Correlation Analysis

Correlation was also conducted in assessing degree of association between the study variables and results outlined in Table 4.5.

Table 4.5: Correlation Matrix

	Stock returns	**Financial leverage**	**Firm size**	**Profitability**
Stock returns	1			
Financial leverage	-.063	1		
Firm size	-.065	.283**	1	
Profitability	.282**	-.206**	.052	1

Source: Research Output(2018)

The correlation test results as demonstrated on table 4.5 demonstrate that financial leverage and stock returns association was frail and inverse as represented by the - 0.063 correlation coefficient value. The correlation between firm size and stock return was additionally feeble and negative as portrayed by a - 0.065 relationship coefficient, while the correlation between benefit and stock returns was frail and positive as shown by the connection coefficient of 0.282 individually. As per the outcomes, all the connection esteems don't surpass the 0.7 cut off point thus a sign that there is no multicolinearity among the exploration factors.

4.6 Regression Analysis

Regression analysis aims at determining the relations between a response variable and predictor variable. The results were as follows

4.6.1 Model Summary

Table 4.6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.293[a]	.086	.071	.352274	2.083

Source: Research Output (2018)

The R square score is 0.086, hence the independent variables which includes profitability, firm size, financial leverage account for 8.6% of the change in the stock returns. The Durbin Watson statistics esteem of 2.083 lies in the accepted range of 1.5 and 2.5 thus an indication autocorrelation does not exist among the variables of the research.

4.6.2 Analysis of Variance

Table 4.7 shows the ANOVA results

Table 4.7: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.174	3	.725	5.840	.001[b]
	Residual	23.082	186	.124		
	Total	25.256	189			

Source: Research Output (2018)

The ANOVA results shows 5.840 as the F- statistics and 0.001 as the P value proving significance hence the model is fit and a good predication.

4.6.3 Regression Coefficients

Table 4.8: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.185	.218		.847	.398
	Financial leverage	.052	.178	.022	.292	.771
	Firm size	-.016	.014	-.087	-1.176	.241
	Profitability	.847	.210	.291	4.028	.000

Source: Research Output(2018)

Table 4.8 shows there is a positive but not critical association between budgetary leverage and stock returns for the organizations listed at NSE. The outcomes additionally show that the association between firm size and stock returns is negative and not factually huge.Further, the findings exhibit a critical profitability and stock returns positive connection for the organizations listed at NSE. The below regression results was formulated from table 4.8

$$Y = 0.185 + 0.052X_1 - 0.016X_2 + 0.847X_3$$

4.7 Interpretation of the Findings

The outcome demonstrated presence of a positive but insignificant financial leverage and stock returns association for firms listed at NSE. This suggests the money related influence doesn't affect stock returns of non-monetary firms recorded at NSE. An investigation by Muradogu and Sivaprasa (2010) revealed existence of a positive connection among influence and stock returns for entities in the utilities area at the London Stock Exchange. Öztürk and Yılmaz (2015) also note that entities with minimal price/equity ratio have higher returns and stocks with low leverage have a superior performance than ones with high leverage at Istanbul stock exchange. Barasa (2012) noted that leverage contributes negatively to stock returns changes.

Furthermore, the result was that firm's size had an inverse but statistically insignificant contribution to stock returns changes for firms listed at NSE. Olowoniyi and Ojenike (2012) discovered that size of an entity positively affected stock returns for entities recorded at Nigeria Stock Exchange. Mazviona (2014) discovered that size of an entity had a positive influence on stock returns at the Zimbabwe Stock Exchange (ZSE) though it was not significant.

Finally, the discoveries set up that the connection among profitability and stock returns of firms recorded at NSE was certain and measurably huge. This outcome shows that benefit of firms significantly affects stock returns of firms of non-monetary firms enlisted at NSE. According to Giacomini et al. (2014), profitability indicates management efficiency as it's usually used to compare them to other banks. In order for firms to post positive returns, they have to overcome many huddles like risks associated with business operations and management strategy employed to gain an edge over its competitors.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The section presents a synopsis of study findings, study conclusions, limitations and areas for further researches in regard to the conclusions.

5.2Summary

The focus of the study was to measure the repercussion of financial leverage on stock returns for companies recorded in Nairobi Securities Exchange using descriptive research. Auxiliary information was recovered from yearly reviewed budget summaries and reports for non-money related entities recorded between 2012 and 2017. Investigation of the information for this work incorporated correlation and multiple regression analysis. Complete data was however obtained from 38 firms making up a rate of response of 80.85%. The rate of response of 80.85% was considered adequate for the study. The descriptive results established that stock returns had a mean value of -0.04410 while financial leverage had a mean value of 0.15113 respectively. The findings also established that that the mean value for firm size was 16.21285 while the average value for profitability was 0.03135 respectively.

The correlation built up that the connection between money related influence and return to stock was frail and negative while relationships between's firm size and stock return was likewise feeble and negative respectively. The investigation further settled that the connection among profitability and stock returns was feeble and positive and that all the

relationship esteems didn't surpass the 0.7 cut off point subsequently a sign that there is no multicolinearity among the examination factors.

The summary of the model demonstrates that the indicator factors which incorporate productivity, firm size, money related influence gave 8.6% of the clarification in the dependent variable (stock returns). The examination additionally found that that the F measurements of 5.840 was critical, with P- value of 0.001 which is not higher than 0.05 making the model fit and an appropriate predication of the relationship between the exploration factors. The regression coefficient results uncovered a positive but not critical connection between leverage and stock returns for firms listed at NSE. The outcomes likewise settled that the connection between firm size and stock returns was negative and not critical. Finally, the results recognized that profits and stock returns of the associations listed at NSE have positive association.

5.3 Conclusion

The discoveries of the study recognized a positive insignificant leverage and stock returns connection for firms recorded at the NSE. The investigation accordingly reasons that budgetary influence doesn't impact stock returns of non-money related substances recorded at NSE.

The investigation additionally noticed an inverse firm size and stock returns connection and it was not measurably significant. The examination hence reasons that firm size does not affect stock returns of non-money related firms recorded at NSE.

The consequences of the examination at long last settled that there was a huge and positive connection among gainfulness and stock returns of the organizations recorded at NSE. In light of this discovering, it is obvious that productivity of firms has a factually noteworthy influence on stock returns of firms of non-monetary firms recorded at NSE.

5.4 Recommendations for Policy and Practice

Given financial leverage contribution to changes in stock returns was found not to be statistically significant, it is advised that the management of listed non-monetary entities should ensure they hold optimum debt levels to ensure that the firm is solvency and to reduce the possibility of bankruptcy and failure.

Also, the examination reasoned that firm size influence on returns on stock of non-budgetary organizations listed at NSE not significant. The investigation anyway suggests that the administration of listed firms ought to put resources into fixed advantages for upgrade the size of their association and appreciate the advantages of economies of scale typically connected with huge measured firms.

The conclusion of the examination was that productivity of firms critically impact on stock returns of firms. Depending on the investigation, the administration of the listed non-monetary firms should concentrate on guaranteeing that the firms are productive so as improve their organizations offer worth and upgrade shareholders wealth.

5.5 Limitations of the Study

The setting of this investigation was only targeting non-money related organizations appearing at the NSE. Discoveries must be summed up to the recorded non-money related firms. Further, the examination concentrated on leverage estimated utilizing the obligation

proportion, firm size estimated as far as total assets and gainfulness estimated through profit for resource. However, there are many dimensions of the variables which may give different results hence the study is based on the adopted measures.

Secondary data for only 5 years hence the findings are generalized with the study period as additional data may give different results and output. The examination also used secondary data for the 5 years' period is historical and may not show the current events. In addition, secondary data does not consider other qualitative factors, which affects stock return of listed firms.

5.6 Further Research Suggestion

Stock returns were measured in this study using closing share prices and leverage was measured using the debt ratio. Thus, I suggest a similar study through the use of other measures of stock returns like market capitalization, stock market return and other leverage measures such as debt to equity ratio. In addition, entity size was measured in terms of assets while profitability was measured using the return on asset. The variables can be measured by use of different ratios like number of employees for size and net gain margin.

The study also highlighted on all firms recorded at the NSE. However, NSE is divided into various segments. A similar study can be carried the various segments at the NSE like the manufacturing sector, agricultural sector, manufacturing sectors which use different ratios of debt. Only 8.6% of stock returns changes was attributable to study variables as depicted in the model summary. This means therefore other factors, which influence stock returns; hence, an additional study can be carried out using other quantitative and qualitative factors.

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APPENDICES

Appendix I: Listed Companies at Nairobi Securities Exchange as at 05 June 2018

Agricultural Entities	
1	Eaagads Ltd
2	Kapchorua Tea Co. Ltd
3	Kakuzi
4	Limuru Tea Co. Ltd
5	Rea Vipingo Plantations Ltd
6	Sasini Ltd
7	Williamson Tea Kenya Ltd
Automobiles and accessories	
8	Car and General (K) Ltd
Commercial and Services	
10	Express Ltd
11	Sameer Africa PLC
12	Kenya Airways Ltd
13	Nation Media Group
14	Standard Group Ltd
15	TPS Eastern Africa (Serena) Ltd
16	Scangroup Ltd
17	Uchumi Supermarket Ltd
18	Longhorn Publishers Ltd
19	Atlas Development and Support Services
20	Deacons (East Africa) Plc
21	Nairobi Business Ventures Ltd
Construction and Allied	
22	Athi River Mining
23	Bamburi Cement Ltd
24	Crown Paints Kenya PLC
25	East Africa Cables Ltd
26	East Africa Portland Cement Ltd
Energy and Petroleum	
27	KenolKobil Ltd
28	Total Kenya Ltd
29	KenGen Ltd
30	Kenya Power & Lighting Co Ltd
31	Umeme Ltd
Investment	
32	Olympia Capital Holdings Ltd
33	Centum Investment Company Ltd

34	Trans-Century Ltd
35	Home Afrika Ltd
36	Kurwitu Ventures
Investment Services	
37	Nairobi Securities Exchange Ltd
Manufacturing and Allied	
38	B.O.C Kenya Ltd
39	British American Tobacco Kenya Ltd
40	Carbacid Investments Ltd
41	East African Breweries Ltd
42	Mumias Sugar Company Ltd
43	Unga Group Ltd
44	Eveready East Africa Ltd
46	Kenya Orchards Ltd
46	Flame Tree Group Holdings Ltd
Telecommunication and Technology	
47	Safaricom PLC

Source; Nairobi Securities Exchange

APPENDIX II: DATA SUMMARY

Firm	Year	Share price	Total debt	Total assets	Net income
ARM	2017	13.00	14437510	42699067	-6549812
	2016	25.50	13243508	51058802	-2800175
	2015	41.75	21080840	51936664	-2890841
	2014	86.00	20872119	36912580	1493393
	2013	90.00	16267886	29705254	1348803
BAMBURI	2017	180.00	1450000	47203000	1973000
	2016	160.00	0	40811000	5890000
	2015	139.00	0	33446000	5872000
	2014	139.00	0	40991000	3903000
	2013	210.00	952000	37035000	3673000
BAT	2017	800.00	2919724	17805588	3336006
	2016	909.00	2976976	18499800	4234334
	2015	786.00	1700100	18681184	4976000
	2014	900.00	1521400	18253510	4225314
	2013	595.00	726982	16985923	3723691
BOC	2017	101.00	23767	2228669	39379
	2016	82.00	8536	2215302	126323
	2015	103.00	0	2320956	148600
	2014	125.00	0	2300320	229625
	2013	125.00	0	2633093	202636
Car & General	2017	19.50	3545912	9400007	119268
	2016	27.00	3389099	9705198	217426
	2015	39.50	2813382	8988047	127147
	2014	16.00	2521690	8152812	278363
	2013	5.15	1922829	6901430	401189
Carbacid	2017	12.90	0	3306974	352300
	2016	13.40	0	3081768	375568
	2015	17.30	0	2968727	393863
	2014	149.00	0	2533163	490641
	2013	140.00	0	2204394	475541
Centum	2017	41.00	17416137	88385608	8310292
	2016	37.00	13024100	78054000	9947630
	2015	46.50	9982600	72231387	7942432
	2014	36.50	4201029	29597220	3055000
	2013	19.75	4149532	18961552	1034098
Crown berger	2017	76.00	731275	5871607	223294
	2016	61.00	714592	5059029	131796
	2015	93.00	370743	4539148	30748
	2014	111.00	264104	3852814	19715

	2013	75.00	189175	2945434	213843
Eeagads	2017	22.00	0	922802	18107
	2016	27.25	0	644781	477
	2015	26.75	0	732548	21155
	2014	29.00	0	599702	-41684
	2013	25.50	0	485320	-59215
E.A. cables	2017	5.15	3426005	7038421	-662835
	2016	5.95	2792995	7548406	-582602
	2015	10.60	1471338	8384143	-741204
	2014	16.20	1730986	7889496	341149
	2013	16.75	1579677	6840055	398202
EABL	2017	251.00	27488274	66666312	8514568
	2016	244.00	26648750	61746000	10270813
	2015	273.00	29613663	66939778	9574905
	2014	289.00	34839603	62865943	6858608
	2013	320.00	24793267	57720462	6522200
East portland	2017	26.00	2638624	27357388	-1471361
	2016	23.50	3783376	27842120	4145755
	2015	46.75	3019534	23112582	7157070
	2014	80.00	2587970	15717257	-386631
	2013	57.50	2682393	16133703	340931
Eveready	2017	2.30	4500	772652	267173
	2016	2.35	443274	1082806	-206505
	2015	2.70	349120	1511665	-201509
	2014	3.65	386835	930057	-177589
	2013	2.70	235262	941797	45092
Express kenya	2017	2.30	142235	375032	-26824
	2016	3.55	200966	379575	-96938
	2015	4.50	185450	441898	60089
	2014	6.50	53310	477922	-77352
	2013	3.90	62718	480525	229
Home afrika	2017	1.00	687095878	4477827992	-181435212
	2016	1.20	687095878	3930010782	-168458361
	2015	2.60	716914000	3862316000	-390091000
	2014	4.90	584662823	3177289807	8956029
	2013	4.90	259524981	2569021977	80629957
Kakuzi	2017	330.00	0	5746126	593378
	2016	309.00	0	3015067	568361
	2015	317.00	0	4288966	459714
	2014	137.00	0	3857454	160205
	2013	125.00	0	3717543	165028

kapchorua	2017	79.00	0	2030309	-51769
	2016	200.00	0	2144587	106696
	2015	141.00	0	2329151	234322
	2014	137.00	0	1929161	-22785
	2013	145.00	0	2078475	125991
Kengen	2017	8.55	138714088	377196543	9057131
	2016	5.80	136906012	367248796	6743492
	2015	7.10	126466993	342519995	11517327
	2014	10.90	136114890	250205524	2826323
	2013	15.15	80934700	188673282	5224704
Kenol	2017	16.30	7162987	24099030	2464703
	2016	14.90	7366559	24201705	2413207
	2015	9.50	4662431	17377103	2014974
	2014	9.60	10498228	23915166	1091284
	2013	9.45	15376826	28121673	558419
KPLC	2017	9.90	122016122	341653227	7266131
	2016	8.15	113868712	297542180	7196563
	2015	13.20	111600384	275493150	7431957
	2014	13.35	70109721	220109352	6456234
	2013	14.50	47887734	184212535	4352165
KQ	2017	4.75	140049	146144000	10072000
	2016	5.85	120606	158415000	-26225000
	2015	4.90	147784	182063000	-25743000
	2014	12.40	89012	148657000	-3382000
	2013	12.50	61965	122696000	-7864000
Limuru tea	2017	540.00	0	262009	-22134
	2016	530.00	0	282193	-19074
	2015	1,085.00	0	342161	2547
	2014	771.00	0	338600	-331
	2013	500.00	0	343007	28513
Longhorn	2017	5.45	280886	1858734	133876
	2016	4.80	476728	1866944	104063
	2015	4.50	41677	689320	71726
	2014	9.05	0	747531	94933
	2013	13.50	0	685019	93918
Mumius	2017	1.05	11617003	24091095	-6803384
	2016	1.30	9273959	27018727	-4731026
	2015	1.60	6294156	19181960	-4644801
	2014	2.85	5739871	23563086	-3359595
	2013	4.20	6039783	27270417	-1660406
NSE	2017	19.70	0	2108220	218806

	2016	14.65	0	2013745	183956
	2015	24.75	301521	1918235	305592
	2014	12.50	301521	1685104	320041
	2013	11.50	301521	1149124	262419
NMG	2017	110.00	0	11320300	1350900
	2016	93.00	0	12174100	1634000
	2015	191.00	381000	12339500	2071100
	2014	263.00	690000	11944300	2460500
	2013	314.00	930000	11444200	2533200
Olympia	2017	2.90	89108	1556804	39835
	2016	2.85	49279	1527522	14834
	2015	4.80	99121	1531409	-29551
	2014	5.00	116613	1576337	45043
	2013	4.00	107803	1897407	7884
Safaricom	2017	25.00	16544151	161686996	48444418
	2016	19.15	0	159182485	38104290
	2015	16.30	10723073	156960000	31870000
	2014	12.30	12615380	134600946	23017540
	2013	6.00	20227958	128856157	17539810
Sameer	2017	2.70	561840	2969868	13029
	2016	2.80	825615	3290867	-652101
	2015	3.75	543393	3751225	-15652
	2014	6.00	611258	3857392	-66929
	2013	5.15	571378	3668487	401189
Sasini	2017	26.25	0	13196025	339407
	2016	19.20	0	16818463	576985
	2015	19.55	0	16044527	1101212
	2014	14.05	0	14929577	45421
	2013	13.30	0	9054366	91689
Scan group	2017	18.95	0	13758912	477943
	2016	18.15	0	13486398	410727
	2015	30.00	249654	12468479	478672
	2014	45.75	293710	13284104	625476
	2013	48.25	335230	12744583	831327
Standard media	2017	35.00	1215502	4459637	-210838
	2016	16.50	616934	4404931	198521
	2015	28.00	636512	4355614	-289603
	2014	34.75	903899	4101749	220514
	2013	26.00	927575	4136762	189493
Total	2017	21.75	5168353	38012115	2738216
	2016	17.00	3804232	36185372	2234392

	2015	18.25	5505314	32541800	1615003
	2014	24.00	7340418	32541800	1424088
	2013	24.37	2494630	39984165	1312277
TPS serena	2017	35.00	4476834	17486823	119465
	2016	20.50	3703181	16983115	119175
	2015	25.00	2577136	15815800	-280613
	2014	36.00	1988387	15939177	108636
	2013	45.50	1761950	16136097	451011
Transcentury	2017	6.70	2811590	18740964	-4331282
	2016	6.80	2594364	18911552	-863890
	2015	8.25	6339647	21817981	-2422574
	2014	19.30	1563980	19463658	-2277929
	2013	28.75	5620022	23840273	626432
Uchumi	2017	3.05	991072	4327281	-1680928
	2016	3.95	667421	5002216	-2836732
	2015	10.95	266032	6161481	-3421360
	2014	12.75	1545791	4634417	384288
	2013	17.93	733337	3848218	357010
Unga group	2017	29.50	511902	10267471	-32286
	2016	34.50	465365	9199783	508816
	2015	33.75	638910	8671788	327189
	2014	39.75	173329	8026578	382767
	2013	34.00	163328	8108379	264773
Williamson Tea	2017	183.00	89608	8382127	676960
	2016	178.00	205766	8931395	482747
	2015	384.00	231265	9285306	-227636
	2014	179.00	180291	8558558	740721
	2013	290.00	6033	8023834	855659