FINANCIAL LEVERAGE AND VALUE OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE.

BY

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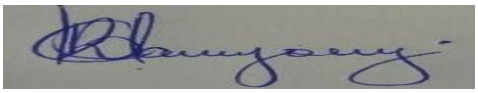
A RESEARCH PROJECT SUMITTED IN PARTIAL FULFILMENT OF THE DEGREE OF MASTER OF BUSINESADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI.

November, 2021

DECLARATION

I declare that this research is my original work and has never been presented to any other institution or University other than the University of Nairobi.

Signed:  Date:17/11/2021

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ACKNOWLEDGEMENT

I am grateful to the almighty God for the free gift of good health and life for the entire period of my graduate studies. I extend my gratitude to my Supervisor Dr. Wanjare and Moderator Dr. Omoro for their tireless and endless efforts in guiding and offering advice for this project.

I am immensely grateful to my classmates whom we shared on academic matters at any time of need.

DEDICATION

I dedicate this work to My Uncle Kisongochi for supporting my education, my wife Lucy Batekha and Son Dalton Wanyonyi and entire Javan Wanyonyi's.

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ANOVA:	Analysis Of Variance
DE:	Debt-Equity ratio
DR:	Debt Ratio
EPS:	Earnings Per Share
MM:	Miller and Modigliani
NSE:	Nairobi Securities Exchange
NPV:	Net Present Value
SPSS:	Statistical Package of Social Sciences
VIF:	Variance Inflation Factor

ABSTRACT

Investors both as a firm and households are keen to create more wealth and value from their investments. However the financing decision debate on whether gearing amplifies the value of the firm has never yielded desirable optimal levels. Some companies like Deacons and Athi River Mining remain suspended from the Nairobi Securities Exchange. Equally the companies actively trading declare relatively small magnitude of earnings per share and report losses in consecutive financial years. This study sought to examine the effect of financial leverage on the value of firms listed on the NSE from the year 2016 to 2020.A literature review of the MM-theory, trade-off, pecking and agency theories provided an understanding of financing decision. Research methodology was designed using the descriptive cross sectional study for a population of all the firms listed on the NSE. A a sample of 42 firms was used from which secondary financial data was extracted .The data was recorded and coded using Excel and analyzed the descriptive and inferential tests using the Statistical package for social sciences (SPSS) .Results showed a mixture of results with overall debt having a significant negative relation to the earnings per share while debt-equity ratio, liquidity and firm size revealing a significant positive relation to the EPS as a measure of firm value. The adjusted R square value of 0.226 revealed that 22.6% of variation in the value of the firm is accounted for by changes in the selected independent variables while 77.4% result from other variables not incorporated in the model. It was concluded that financial leverage negatively affects the value of firms listed on the Nairobi Securities Exchange.

CHAPTER ONE: INTRODUCTION

1.1Background

Financial leverage refers to using borrowed funds to finance the operations of a firm (Pandey 2015).A firm borrows funds through mortgage financing, securing credit from financial institutions and issuing of debentures to compliment shareholders' equity (Allen, Gale & Thakor, 2001).Leverage which is also called gearing creates more value for the firm because it has the advantage of interest tax shield (Mahmudi, 2020). Value of a firm refers to the ability of a firm to generate more wealth for its shareholders(Milimo, 2021).Shareholders wealth is reflected in high market share prices, earnings per share and how the market capitalizes the expected earnings from the firm assets(Michailetz & Artemenkov, 2018).

Firms trading on the NSE are financed with debt and equity though a majority prefer trading on equity to amplify their earnings (Yegon & Koske, 2021).Despite using leverage in their financing decisions(Roche, Olweny & Nasieku, 2020) several firms listed on the NSE are in financial distress a situation which is reflected in their depreciating share prices and numerous bankruptcy cases (Roche, Olweny & Nasieku, 2020).Empirical studies have shown mixed results about financial leverage and firm value. (Wambua M. F. 2019 and Wandera, 2021)establish a negative effect of gearing on the value of quoted companies, while (Hongli, Ajorsu & Bakpa, 2021 and Oduor, 2021) find a positive relationship between financial leverage and the value of firms listed on the NSE. (Milimo, 2021) equally establishes that profitability and stock returns have a positive relation for firms listed on the NSE.

Several financial theories advanced to address the financing decision lack consensus whether leverage can improve the value of a firm. Merton Miller and Modigliani set precedence in their capital structure irrelevancy theory, where neither debt nor equity mix is optimal to increase firm value but it depends on positive NPV in its investments (Franco Modigliani and Merton Miller1958).In a rejoinder, the trade-off theory argues that finance managers have to consider the benefits of debt financing against the costs of debt(Black and Scholes 1984). Pecking order theory suggests that firms follow a prescribed financing order starting with retained earnings, debt and issue equity as a last option(Myers1985). Finally this study will consider the agency theory (Jensen and Meckling 1976) which defines the relation between managers and owners where the agents are keen to self-benefits as opposed to shareholder wealth maximization.

From the foregoing analysis, a contrast exists in prior research findings over the influence of gearing on firm value (Milimo, 2021). Similarly, major financial theories contradict each other since no single agreeable optimal level of financing is desirable. Additionally, the firms listed on the NSE like Uchumi, Eveready, and Mumias face financial distress challenges, bankruptcy, liquidation and even delisting (Yegon & Koske, 2021).Following this situation financial managers are faced with the problem of deciding on how best they can employ leverage to improve the value of the firm. Therefore these preexisting misconceptions lay a foundation for this research to establish how leverage can amplify firm value and minimize financial distress facing firms listed on the NSE.

1.1.1Financial Leverage

Financial leverage is borrowing funds to supplement existing funds for investment to magnify the potential positive and negative outcomes (Ahmad, Guohui, Hasan, Rafiq & Rehman, 2017). Leverage also known as gearing assumes different debt instruments such as bonds, mortgages, and bank loans to obtain additional capital (Hovakimian, Opler & Titman, 2001).Many scholars agree that gearing can elevate a company's earnings because the interest charge on borrowings from lenders is exempted from taxation, which is an advantage to firms. Leverage is negatively related to firm investment but in most cases it has a disciplinary role towards managers (Aivazian, Ge & Qiu, 2005).

A study carried out (Haung et al. 2002) on Hongkong property markets shows that increasing gearing is positively related to returns made on assets though at the same time it has a significant negative effect on firm profit margins. (Mukras M.S 2015)studies how financial leverage affects a firm's performance, proxying performance with return on assets and leverage by debt ratio. Resultant statistical analysis shows that gearing has a significant negative influence over firms performance. However in a study (Achieng, Muturi & Wanjare, 2018) debt measures don't significantly influence the return on equity, but they agree that overall debt negatively influences a firms' returns on its assets.

Financial quantitative techniques can be used to determine whether a firm is geared and to what extent. Usually the debt ratio applies where the total amount of borrowed funds is compared with the overall total assets employed in the firm (Ibrahim & Isiaka, 2021).Incase this ratio is high then the firm is more likely to default on its financial obligations. Another measure is the one

that depict the proportion of gearing to the levels of equity, the Debt-Equity ratio. In case debt level is higher than the levels of equity then such a firm is financing most of its assets using borrowing from lenders (Brunnermeier & Krishnamurthy, 2020). In this study gearing will be analyzed using debt ratio and another ratio, the debt equity ratio(Pandey2015).

1.1.2 Value of Firm

The value of a firm refers to all obligations demanded by creditors and what the owners claim to be theirs in the business. Market value of securities and real assets can show the worthiness of a firm (Sari & Astini, 2020). The value of a firm is the total outstanding shares multiplied by the price per share on the securities market (Sari & Astini, 2020).

Valuation of a firm takes different forms and for the major purpose of determining the worthiness of the firm. The value of a firm provides a clear picture on whether the shareholders wealth is being maximized or not. Shareholders are keen to have their value increased by proper utilization of the firms' assets. A firms value can be as a result of leverage while it can wholly be equity financed. The value of an unlevered and levered firm does not matter(Franco Modigliani and Merton Miller1958).

Determination of the value of the firm is by estimating using the ratio analysis. Free cash flow ,dividend discount model and economic value added are such estimators(Khakali, 2021).The other ratios are the price earnings ratio, earnings per share and the Tobins . This study shall use the earnings per share as a measure of the dependent variable to avoid the pitfalls in the other methods(Entezarkheir & Sen, 2016).

1.1.3 Financial Leverage and Value of Firm

Financial leverage refers to using borrowed funds to boost shareholders equity financing. Gearing enables a firm to secure assets that could be out of reach with minimal owners contribution. The assets secured using debt financing enables a firm to create a promising environment for shareholders by investing in positive NPV projects that yield high cash inflows (Khakali, 2021).Through investing in profitable projects the firm is able to create value for the firm which can be reflected in an increased market share in its securities trading on the market(Pandey 2015). Employing gearing sigmake investors perceive a firm as overvalued or undervalued on the stock market. Firms' value is overvalued when the market price per share is higher than its intrinsic book value and undervalued when the market value is lower than its net book value (Entezarkheir & Sen, 2016).

Financial leverage has positive and significant impact on the value of a firm(Farooq & Masood 2016) as shown by the earnings per share .However (Khakali, 2021) leverage has a negative effect on share return of firms of when a cross sectional study is undertaken on leverage and listed on the NSE. Having mixed research findings locally and internationally, necessitates a need for further research in this area.

Firms which are geared have better firm value than those that are wholly equity financed because debt financing does not dilute ownership but rather acts as a disciplinary tool for the managers' efficiency (Otieno & Ngwenya, 2015) .

1.1.4 Firms Listed on the Nairobi Securities Exchange

A stock market is an institution which deals in company stocks and derivatives (Bessler & Schneck, 2016) for general public. Nairobi securities exchange ranks as the oldest securities markets in East Africa. It was established in 1954 as a stock market for a few business entities where traders met at the Stanley Hotel where trading was on a gentleman's agreement over a cup of coffee. The security exchange has been growing ever since with new participants. The introduction of the first security exchange controls was done in 1965 to the market, which led to a slight slump in the stock market. The recession was long enough until 1984, when measures were taken to activate the capital market. But in 1991,a new dawn surfaced when first trading was introduced where traders bid on the open floor. In 1995 the market was available to foreign investors, boosting the capital market trading volumes and voted as the best security market. In 2007 trading was revolutionized at the stock market through digitization, where automated trading took place, and traders would no longer meet on the trading floor but rather trade through digital platforms. The stock exchange was rebranded to a securities exchange market and listed the FTSE NSE 15 and FTSE NSE 25 indices. Another milestone is that the security exchange is the founder of the Africa Security Exchange Association(ASEA), founded in Kenya, bringing together all 25 trading security exchanges in 37 countries in Africa. The NSE comprises 64 listed companies as of 13 September 2021, with a daily trading turnover of 347,099,539 Million and a capitation of approximately KES 2781.64 billion. The Nairobi securities market deals in equities, corporate bonds, derivatives, and government bonds. Companies listed on the NSE are classified according

to the industry in which they operate. Most of the companies are financed by debt which propels them to generate significant value.

1.2 Research Problem

Prudent financial management by corporate finance managers leads to continuous growth and survival of firms. Optimal financing decision has been a crucial element which financial managers have not been able to demystify (Achieng, Muturi & Wanjare, 2018).Gearing compliments other sources of capital and it is normally preferred by firms because it is presumed to amplify the value of shareholders wealth.

Despite high gearing levels, most of the NSE listed firms have low share prices and investor earnings per share (Otieno & Ngwenya, 2015). Case in point is the earnings per share of Mumias sugar and Eveready limited where investors have lost confidence and such shares earn negatively. Investors shun such stocks even if the companies are leveraged which further lowers the value of such firms (Entezarkheir & Sen, 2016).

A study carried out on how gearing affects the value of firms,shows that borrowing has a negative influence on the value and shareholders wealth(Otieno & Ngwenya, 2015), (Asim & Ismail, 2019). Another study carried out (Haung et al. 2002) on Hongkong property markets shows that increasing gearing is positively related to returns made on assets though at the same time it has a significant negative effect on firm profit margins. Similarly (Oduor M 2018)finds a positive relation between leverage and profitability in firms listed on the NSE. Theoretically, MM bench mark theory suggests that capital structure is irrelevant ,the tradeoff theory calls for arbitrage between costs (Asim & Ismail, 2019)and benefits of using debt while the

pecking order theory seeks to attain maximum value of a firm retained earnings is a priority then debt and lastly equity financing.

The conflict in empirical research and theories is a knowledge gap to be demystified. Therefore this research will seek to find out whether leverage influences the value of firms listed on the NSE.

1.3 Research Objective

To examine how leveraging in firms can influence the value of the firms listed on the Nairobi securities exchange.

1.4Value of the study

Findings from this research will benefit financial managers of corporations in general since they will understand how best to utilize debt financing in their capital structures to create value for the firm optimally. Secondly, the government agencies will use the results to develop policies that regulate the financing and bailing of non-performing firms. Thirdly research findings will be helpful in the Capital Markets Authority as a regulatory body to find relevant information and advice listed firms concerning their debt levels and resulting risks such as bankruptcy. Fourth, findings increase knowledge corporate finance arena creating an avenue for further research in the future

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The section discusses the theoretical pillars of capital structure that builds this research. The section will also depict the conceptual frame that maps out the flow of study linking the independent and dependent variables and lastly make a summary of literature review.

2.2 Theoretical Literature Review

In this section of the study the discussion will revolve around principal theories that will pivot this study which are; the Miller and Modigliani theory, Trade-off theory, Pecking order theory and the Agency theory relating to gearing and financial performance.

2.2.1Miller and Modigliani Theorem

The MM theory is attributed to (Franco Modigliani and Merton Miller1958) MM who were among the first to diverge from the traditional view on firm value. Following this approach (Franco Modigliani and Merton Miller1958) a company's value is not in any manner related to the financial decision that the managers undertake and neither does the cost of the capital. Capital structure, in this case, is the composition of debt and equity in the financial mix of a firm. However, this approach assumes that the firm is majorly operating in a frictionless economic environment, where taxes are non-existent, without bankruptcy charges and no information asymmetry in the trading market. Within this (Franco Modigliani and Merton Miller1958) approach, lies a proposition that incase of two firms one which is geared and another is not, then their values are the same thing.

However if it happens that the geared firm is more worthy than the ungeared firm, arbitrage solves the discrepancy. The arbitrage process occurs when the levered firm investors develop an appetite for the unlevered firm because they believe it is overvalued. Once the shift from the levered to the unlevered occurs, they tend to earn similar earnings, setting the equilibrium value of a leveraged firm and an unleveraged firm (Dempsey, M. 2019). Secondly, MM proposes that a companys' cost of equity is directly related to gearing levels as gearing increases. As leverage is increased, the cost of equity also rises to offset the interest tax shied of debt to keep the value of the firm arbitrary constant (Franco Modigliani and Merton Miller1958) .In realizing the shortcomings of the onset theoretic work, MM later on recognize that the value of a firm is relevant by considering the advantages of interest tax non deductibility. When they incorporate tax advantages they find that the value of a firm increases because of the tax advantages where interest is not taxable. Following from their findings, this study will be guided by the theory to understand why most firms prefer debt financing for other reasons other than tax shield advantages.

2.2.2 Trade –off Theory

Immediately after MM-approach was published and started gaining popularity, many other scholars joined the discussion in approval while others engaged in criticism.

One such theory as a result is the trade –off theory (Black and Scholes 1984) which proposes that firms do factor the costs and benefits that may arise out of its gearing financial decision. Trade-off theory is an argument over the MM approach, recognizing that debt interest tax deductibility shield creates more value for a firm. A firm makes its financing decision with the hope of creating more wealth for its shareholders and owners in terms of higher earnings per share. Motivation for higher

returns makes managers seek external sources of funding, which carry the cost of a fixed charge.

The theory posits that organizations have to weigh the benefits that may accrue to a firm in leveraging as well as the cost charges that arise out of employing debt financing such as Agency costs (Black and Scholes 1984). Using debt financing has the benefit of an interest tax shield while at the same time, it carries bankruptcy costs. Financial managers have, over time, preferred that the benefits that arise over the use of debt are more compared to the bankruptcy costs.

In this study, this theory will shed light on how most firms listed on the NSE trade off the costs of gearing with the benefits to attain, if any the optimal level firm value.

2.2.3 Pecking Order Theory

Pecking order theory (Myers 1985) implores the hierarchical choice of financing for a firm. According to this theory, firms have a set of capital sources from which the most suitable type can be selected at any one time, ranging from equity, retained earnings, and debt. A firm that is levered is the one that has the composition of debt and equity, while an unlevered firm is wholly equity financed.

In deciding on the optimal capital structure, the finance managers ought to select the mix which will not lead to financial distress for the firm. Consequently, Myers puts across an order of choice of financing where firms need to explore the use of retained earnings, debt, then if issuing debt is no longer meaningful, equity financing is issued as a last resort. In light of the harsh consequences that managers can face, debt financing is usually used to control the activities of managers since they will work hard to repay the fixed cost charges of debt to remain in business; hence financial leverage influences firm value (Myers, 2001).

This theory will shed light in this study in identifying the ways in which financing managers in the companies listed on the NSE make financing choices; whether they follow the pecking hierarchy or they have their own approaches.

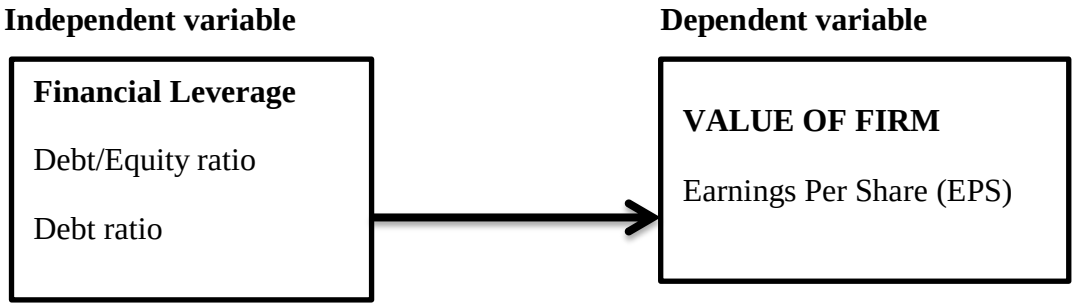
2.2.4 The Agency Theory

This theory is the work of Jensen and Meckling who identify a relationship between two parties the Principal and agent (Jensen and Meckling 1976). According to this theory the managers as agents have their interests while the shareholders as principals also have their interest concerning the firm. The shareholders employ the management to oversee prudent management of their borrowed money and equity holding. However, as the owners' agents, the managers have their interests which they put ahead of the shareholders' interests. Managers, in earnest, to maximize the profitability of firms put their interests first like increased perquisites, higher remuneration, expensive holidays, and huge bonuses, all of which contradict the shareholders' purpose of wealth maximization. Consequently, managers and owners are ever in conflict since managers' selfish interests are most likely to result in higher costs that managers should meet, like audit fees, monitoring charges for the managers, and risk of bankruptcy costs.

To mitigate the expenses of the agents' costly intent the owners do employ different mechanisms to control and regulate the managers (Bashir & Zachariah, 2020). This theory will help this study to elaborate how the actions of managers like undertaking debt financing decision will support shareholders interest. Indeed, most firms listed on the NSE have debt financing as a tool to control the agent's decisions since they have to work hard to repay liabilities.

2.3 Conceptual Framework

Figure 2.3 Conceptual Model



Source, (Author 2021)

2.4 Summary of Literature Review

Seminal work by Miller and Modigiliani (1958) holds that capital structure is irrelevant and later on rescinded their stand to recognize the tax advantages of debt financing.(Kraus and Litzenberger1973) contrast the earlier work of Miller and Modigliani by proposing the idea that a firm should choose debt levels and equity, bearing in mind that equilibrium should exist between the interest tax deduction benefit and the associated costs of debt. Contrary to MM, (Myers and Majluf1984) debate that firms follow an order in making the financing decision by first utilizing ploughed back profits, borrowing from financial institutions, and lastly issue equity as a last resort. These contradictory theories point to a lack of consensus on capital structure choice, which creates a gap for further research.

Empirical literature reviews globally and locally give different findings. Internationally the works of (Lestari2021), (Bui2020) and (Matar & Eneizan 2018)and locally studies by (Achieng, Muturi & Wanjare 2018), (Kaara P M 2018), (Mutegi L M2016) (Otunge & Omoro 2017)and (Main Olweny &Wanjau 2018) give significant positive effects between leveraging firms and firm financial performance while others give a negative relation.

From the theoretical and empirical studies results, many conflicting results exist, which give room for further research in establishing whether financial leverage doe influence the value of firms listed on the NSE.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The research methodology part discussed the research design, the entire population, sampling procedure, how data was collected, analyzed and used the regression analysis model.

3.2 Research Design

The design is a schematic framework that was used in gathering and analyzing data to arrive at a conclusion in a study (Kothari, C. R. 2004).This study used the descriptive cross –sectional research design which described the relation between gearing and value of firms listed on NSE (Nissaji, H 2015).This study adopted a descriptive research design because it allows for describing the leverage and firm value variables in qualitative and quantitative terms about the sample from a population of 64 listed firms on NSE. The need for a clear description in the variables makes the descriptive design the most suitable for this study.

3.3 Target Population

Target population is the sum total of all the elements to be studied with the same characteristics (Mugenda & Mugenda 2003). In this study, the population comprised all the 64 listed companies on the Nairobi securities exchange at this time. Since most of the companies listed for trading on the NSE had similar financing options of debt and equity they were the most suitable in this study. All the 64 firms formed the sample size.

3.4 Data Collection

This research used secondary data that was abstracted from audited financial reports published by Capital markets authority, the NSE handbook, and financial reports published online by the representative companies. The data was collected for five years from 2016 to 2020 on an annual basis because during the period most of the firms filed for bankruptcy and delisting on the NSE. The retrieval of data focused on dependent variables and independent variables. Proxy for the dependent variable being EPS while independent variable proxy was net debt to net assets and total liabilities to total shareholders' equity and control variables firm liquidity and firm size.

3.5 Data Analysis

This study utilized descriptive quantitative data, and data analysis was carried out by descriptive analysis, correlational and inferential statistics. Regression analysis was obtained using SPSS and Microsoft Excel. The specific items to be measured will be debt ratio, return on assets, return on equity and earnings per share.

3.5.1 Analytical Model

The study used multiple regression analysis to determine how the independent parameters predict the dependent parameters, and the regression equation was as shown below:

$$\textbf{EPS}=\boldsymbol{\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon_i}$$

Where:

EPS = Earnings per share -Dependent variable

β_0= the constant term that measured the unit change in the dependent variable

$\beta_1 \; to \; \beta_4$= Constants of independent parameters that measured the responsive changes in EPS due to a unit change in X.

X_1= Debt/Equity ratio- measured by long-term borrowings divided by total equity- how much debt can be covered in the event of liquidation.

X_2= Debt ratio-measured by total liabilities divided by total assets.

X_3=Firm liquidity

X_4=Firm size –Ln in assets

3.5.2 Test of Significance

Analysis of variance (ANOVA) was undertaken to establish the F-statistic. The study also utilized a T-test to test the levels of significance between the variables. The level of significance was taken at 5%.

CHAPTER FOUR: DATA ANALYSIS RESULTS AND FINDINGS

4.1Introduction

The section was used to examine the effect of financial leverage on the value of the firm. The section utilized the inferential from SPSS of descriptive, regression, ANOVA and correlation.

4.2Response Rate

The targeted population was all the 64 firms listed on the NSE.A sample of 42 firms was used out of the 60actively trading where 4 are under suspension from2018.This represents a 70% response rate.

4.3Descriptive Analysis

In descriptive statistics the mean, standard deviation, minimum and maximum values for the dependent variable and independent variables are given as shown in the table 4.3below.Earnings per share as dependent variable had a mean of 1.742 with a standard deviation of 17.326.Debt equity ratio had a mean of -0.195and a standard deviation of 12.738 while debt ratio mean was0.855 with 1.76 standard deviation as liquidity had a mean of 2.485 with 3.4 standard deviation and firm size had a mean of 15.735 and a standard deviation of 2.105 as independent variables.

Table 4.3 Descriptive Statistics

Statistics						
		EPS	DE	DR	LQ	FZ
N	Valid	210.000	210.000	210.000	210.000	210.000
	Missing	0.000	0.000	0.000	0.000	0.000
Mean		1.742	-0.195	0.855	2.485	15.753
Std. Deviation		17.326	12.738	1.760	3.416	2.105
Minimum		-105.060	-168.281	0.028	-16.241	8.412
Maximum		87.260	21.151	18.341	16.868	19.839

Source ,(Author 2021)

4.3 Multiple Regression Assumptions Test

Multiple regression assumptions were run before conducting a regression model. The assumptions of regression run were; linearity, homoscedasticity, normality, multicollinearity and autocorrelation assumptions.

4.3.1Test of Linearity

The test of linearity involves checking if the scores of each variable should have a normal distribution. Pearson's Product Moment Correlation coefficients were used to examine the assumption of Linearity. The results below show a significant linear relation between EPS and the independent variables.

Table 4.3.1 Linearity Test

Variables	EPS	Sig.
DE	.059	.393
DR	.393	210
LQ	210	-.463**
FZ	-.463**	.000

Source, (Author 2021)

4.3.2 Homoscedasticity Assumption

Levene's test of equality of error variances was used to homoscedasticity assumption. The test was used to establish whether their exists any correlation exists between the error terms. The P value obtained across the data set 0.241 is less that of p-critical 0.05.Thus the research failed to reject the null hypothesis at p-critical. Results are as shown in the table below.

Table 4.3.2 Homoscedasticity Assumption

Statistic	df1	df2	Sig.
3.378	209	25	0.241

4.3.3 Normality Assumption Test

Shapiro-Wilk was used to test the normality of the data used in the study at 5% level of significance, to ensure that the data set is normally distributed. In all the cases the significant value was less than the p-critical of 0.05, which means the hull hypothesis is relevant and the data set assumes normal distribution.

Table 4.3.3 Normality Assumption Test

Variables	Statistic	Sig.
DE	.684	.165
DR	.897	.361
LQ	.707	.140
FZ	.840	.199

Source ,(Author 2021)

4.3.4Autocorrelation Assumption Test

Autocorrelation assumption test was conducted using Durbin-Watson. In statistics the value of autocorrelation should lie between 1.5 and 2.5 .The results obtained in the table below shows that a Watson value of 1.6 showing no autocorrelation.

Table 4.3.4Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.491a	.241	.226	15.23986	1.696

Source ,(Author 2021)

a. Predictors: (Constant), FZ, DE, LQ, DR

b. Dependent Variable: EPS

4.3.5Multicollinearity Assumption Test

Multicollinearity assumption test was tested using tolerance and variance inflation factor (VIF). In case the VIF is greater than ten then multicollinearity exists, but less levels are acceptable which the case in this study was. Multicollinearity shows a strong correlation in the prediction variables.

Table 4.3.5 Multicollinearity Assumption Test

Variables	Tolerance	VIF
DE	.997	1.003
DR	.766	1.305
LQ	.847	1.181
FZ	.714	1.401

Source ,(Author 2021)

4.4 Inferential Analysis

Inferential analysis used in this section was correlation and multiple regression models.

4.4.1Correlation Analysis

Pearson correlation analysis was carried out to show the strength and direction of the association between dependent and independent variables. The values of correlation lie between positive one and negative one. In the table below all the predictor variables have a small levels of correlation because the values are less than the 0.05 critical value but its has negative correlation to debt ratio. The results are as shown in the table below.

Table 4.4.1Multiple Correlation Analysis Results

		EPS	DE	DR	LQ	FZ
EPS	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	210				
DE	Pearson Correlation	.059	1			
	Sig. (2-tailed)	.393				
	N	210	210			
DR	Pearson Correlation	-.463**	-.019	1		
	Sig. (2-tailed)	.000	.785			
	N	210	210	210		
LQ	Pearson Correlation	.072	.032	-.125	1	
	Sig. (2-tailed)	.302	.644	.071		
	N	210	210	210	210	
FZ	Pearson Correlation	.316**	-.038	-.411**	-.287**	1
	Sig. (2-tailed)	.000	.580	.000	.000	
	N	210	210	210	210	210
**. Correlation is significant at the 0.01 level (2-tailed).						

Source ,(Author 2021)

4.4.2Results for Multiple Regression Analysis

Multiple regression analysis was run to establish the effect of independent variables on dependent variable, EPS.

4.5Model Summary

The coefficient of determination (R^2) and correlation coefficient (R) shows the degree of association between dependent and independent variables. The result showed that R^2 is 22.6% and therefore this percentage is variation in EPS due to changes in independent variables. Hence other factors not in the model are causing variation in the dependent variable up to 77.4%.

Table 4.5 Multiple Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.491a	.241	.226	15.23986

Source, (Author 2021)

4.6Regression Model Fitness Test

Model fitness was run to find out if model best fit for the data. Test results showed a less than significant value 0.001 at F=16,4 and $p<0.05$.Thus the model has a best fit.

Table 4.6 Regression Model Fitness Results

	Sum of Squares	df	Mean Square	F	Sig.
Regression	15129.752	4	3782.438	16.286	.000b
Residual	47611.926	205	232.253		
Total	62741.678	209			

4.7Regression Model Coefficients

Regression model coefficients were run in order to use in the regression equation. The output of the test is shown in the table below.

Table 4.7 Regression Model Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-20.005	10.029		-1.995	.047
	DE	.077	.083	.057	.933	.352
	DR	-3.703	.684	-.376	-5.411	.000
	LQ	.385	.335	.076	1.148	.252
	FZ	1.522	.593	.185	2.567	.011

Source ,(Author 2021) a. Dependent Variable: EPS

The above test shows that debt –equity ratio, liquidity and firm size had a statistically significant positive influence on the EPS but debt ratio had a negative significant effect on earnings per share. All independent variables had values greater than p-value, 0.05.

From the analysis the regression model is shown below:

$$\mathbf{Y=-20.005+0.07X_1-3.703X_2+0.385X_3+1.522X_4}$$

Where

Y =EPS, Earnings per share -Dependent variable

X_1= Debt/Equity ratio

X_2= Debt ratio.

X_3=Firm liquidity

X_4=Firm size

In the above model, if the X variables assume a zero value the constant term will be negative (-20.005) as the value of the firm. Similarly a unit change in debt –equity ratio will result in 0.07 units of earnings per share. A unit change in debt ratio implies a -3.703 change in EPS, a unit change in liquidity add 0.385 units in EPS and one unit change in the firm size leads to 1.522more units in EPS.

4.8 Discussing the research findings

The research did examine the effect of financial leverage on the value of firms listed on the NSE. The dependent variable was earnings per share while debt-equity ratio, debt ratio, liquidity and firm size represented the independent variables.

Correlation results show a negative correlation between EPS and debt ratio at 95% confidence. This means that leverage has a negative influence in the firm value. A weaker positive correlation is seen in debt equity ratio and liquidity but a more stronger positive correlation is seen in firm size and EPS.

Regression model results showed that the adjusted r^2 is 0.226 meaning independent variables are causing 22.6% variation in the EPS, hence more disturbance is caused by either factors not in the model. The other factors are more at 77.3%.Overally the results show that financial leverage has a statistically negative influence on firm value. The results are similar to (Wambua 2019 and Wandera, 2021)who establish that debt has a negative impact on firm value of firms on NSE and investors tend to avoid such companies. However other studies establish that debt has a positive and significant influence on the value of a firms listed on the NSE (Oduor M 2018) and (Haung et al. 2002) on Hongkong property markets shows that increasing gearing is positively related to returns made on assets though at the same time it has a significant negative effect on firm profit margins.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS.

5.1Introduction

This section had the summary, conclusion, recommendations and limitations basing on the major aim of the study and the test results.

5.2Summary

The research did seek to examine the effect of gearing on value of firms listed on the NSE. The dependent variable was firm value measured by the earnings per share (EPS) of the respective firms. The independent variables used were debt-equity ratio, debt ratio, liquidity and firm size. A literature review of MM theory, pecking order theory, trade off and agency theories was done to establish theoretical facts on leverage. The study focused on 42 firms actively trading on the market as non-financial firms. A descriptive cross sectional design was adopted for the study with the help of Excel and SPSS 22 statistical tool. Data was collected from online official website of the companies and the NSE electronic handbook.

Data was checked for conditional assumptions to ensure normality, linearity, homoscedasticity, multicollinearity and autocorrelation is achieved. The analysis of statistical data using 95% confidence at 0.05 gave correlation results that showed a weak significant positive correlation between earnings per share and the independent variables. A significant negative correlation was observed between debt ratio and EPS while debt equity ratio, liquidity and firm size showed a very weak positive correlation.

The coefficient of determination which shows the variation in the dependent variable was done. The results similarly showed that only 22.6% variation in the EPS is due to variation in the independent variables. Equally 77.4% variations in the model are caused by other factors outside the model tested ta the 95% confidence.

From regression model results, if the X variables assume a zero value the constant term will be negative (-20.005) as the value of the firm. Similarly a unit change in debt –equity ratio will result in 0.07 units of earnings per share. A unit change in debt ratio implies a -3.703 change in EPS, a unit change in liquidity add 0.385 units in EPS and one unit change in the firm size leads to 1.522more units in EPS.

5.3. Conclusion

The objective of the study was to examine the influence of financial leverage on the value of firms listed on the NSE. Drawing from the preceding research findings, the value of a firm is negatively influenced by gearing as observed in the relation between EPS and debt ratio. The firms with higher debt levels are most likely to fall into the trap of financial distress. Similarly there is a significant weak positive effect of debt – equity ratio on the EPS .However liquidity and firm size positively affect the value of a firm, meaning large firms enjoy the benefits of economies of scale.

The dependent variables which were employed for the model show that indeed they influence the value of firms listed on the NSE. Basing on the ANOVA results other factors at 77.2% impact on the value of the firm. Leverage, however is negatively related to the value of the firm and this leads to lower earnings per share. Firms listed on the NSE have to check their EPS levels since lower earnings per share leads to financial distress.

These findings are similar to a study (Karlina & Ramadhan, 2020) conducted by case study on firms listed on the Bangladeshi stock exchange. The study intended to establish whether EPS was high in firms that use debt as a source of financing. Results showed a weaker positive relation in the study variables with debt negatively influencing the value of the firm.

5.4. Recommendations

Test analysis results show a strong statistically significant effect of debt on the EPS. The size of the firm is equally important from the research results. Firm size has a strong positive effect on the EPS which means smaller firms should expand in their operations to realize more value for itself and shareholders Debt-equity ratio shows very weak positive relation with EPS.

Financial managers should be wary of the debt levels in their financial structures when making financial decisions. They should prudently use debt in a moderate level but highly use retained earnings. Having relatively higher liquidity can improve the levels of EPS for a firm. Therefore firms should develop mechanisms to control their cash flows which can be used to secure debt financing. The government should develop better measures and mechanisms that limit the amount of debt a firm can secure from the open market and through individual and institutional lenders. The Capital markets authority, basing on these findings, should develop real time early warning systems to cautions firms that use excess debt of the eminent bankruptcy and financial distress challenges. This study recommends that the shareholders of firms should increase their financing to support the firms to realize more value. In equal measure, further research should be undertaken to establish why a mixture of results arise in findings of leverage and firm value.

5.5. Limitations

Data for the study was from the secondary sources such as company websites and online publishers. Such data is not highly valid because it is subject to manipulations. In another instance the data is not highly verifiable since some firms fail to audit their results.

Secondly, the scope of study in terms of time frame was limited to the period 2016 to 2018.There are many factors that can occur in the future. Therefore a broad time frame will reduce the challenges in reliability of results

Thirdly the statistical tools used in analysis have their own inefficiencies and it's important to select other tools part from SPSS. Equally the regression model is not adequate because of its limitations.

5.6. Suggestion for Further Research

The study did not fully analyze all the firms listed on the securities market because some of the firms are delisted while others are suspended. It would be more valid if future studies, analyze all the firms listed on the NSE. Second, the time frame was limited to five year, which is not long enough. Despite using the cross sectional research design, 5 years cannot fully explain differences of variances within the firms independent variables. Therefore future studies can yield better results by using a longer time frame.

Lastly, better statistical tools are being developed which can yield better results. This study used Excel and SPSS to perform descriptive and inference tests. Future research can apply better method like the R-studio to minimize the deficiencies of the methods applied in this research.

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APPENDICES: I List of Firms on the NSE.

No.	LIST OF COMPANIES		
I	**AGRICULTURE**	**II**	**AUTOMOBILESANDACCS..**
1.	Sasini	8.	Car and General
2.	Kakuzi	**III**	**BANKING**
3.	Williamson tea Kenya	9.	BK Group
4.	Limuru Tea	10.	Absa Bank Kenya
5.	Rea Vipingo Plantations	11.	Diamond Trust Bank Kenya
6.	Eaagads	12.	Equity Group Holdings
7.	Kapchorwa Tea	13.	HF Group
IV	**COMMERCIAL&SERV…**	14.	KCB Group
21.	Deacons	15.	National Bank of Kenya
22.	Express	16.	NCBA Group
23.	Kenya Airways	17.	The Corporative Bank of Kenya
24.	Longhorn Publishers	18.	Stanbic
25	Nation Media Group	19.	Standard Chartered Bank
26	Nairobi Business Ventures	20	I&M Holdings
27	Sameer Africa	**V**	**CONSTRUCTION AND AL.**
28	Standaard Group	32.	E.A cables
29	Scan Group	33.	Bamburi cement
30	TPS Eastern Africa	34.	Crown Paints Kenya
31	Uchumi supermarket	35.	Athi River Mining
VI	**ENERGY AND PETRO…**	36.	Portland Cement
37.	Ken Gen	**VII**	**INSURANCE**
38.	Kenya power	41.	Britam Holdings
39.	Total Kenya	42.	CIC Ins. Group.
40.	Umeme	43.	Jubilee holdings
VIII	**INVESTMENT**	44.	Kenya Re
47.	Trans-Century	45.	Liberty Holdings
48.	Home Afrika limited	46.	Sanlam Kenya
49.	Centum Investment	**IX**	**INVESTMENT SERVICES**
50.	Olympia Capital Holdings	52.	Nairobi Securities Exchange

51.	Kurwitu Ventures	**X**	**MANUFACTURING &ALLD**
XI	**TELE-COMM&TECH**	53	BOC Kenya
62.	Safaricom	54.	BAT Ke.
XII	**REAL EST INVEST**	55.	Carbacid Investments
63.	Stanlib Fahari I-REIT	56.	East African Breweries
XIII	**EXCHANGE-TRADED F**	57.	Eveready East Africa
64.	New Gold Issuer	58.	Flame Tree
		59.	Kenya orchards
		60.	Mumias Sugar Co.
		61.	Unga Group

APPENDIX II Data Summary.

Serial no	YEAR	COMPANY	EPS	DE	DR	LQ	FZ
1	2020	**BOC**	5.21	0.299638958	0.230555537	2.5137027	14.5523195
2	2019	**BOC**	2.86	0.384363515	0.277646377	1.9771846	14.5049704
3	2018	**BOC**	3.36	0.409511443	0.290534316	1.8835647	14.5771324
4	2017	**BOC**	2.02	0.383336789	0.277110239	1.9538604	14.6169151
5	2016	**BOC**	6.47	0.627566739	0.476762246	2.263514	14.6147451
6	2020	**CARBACID**	1.27	0.115536257	0.10357015	5.7630146	15.1041455
7	2019	**CARBACID**	1.04	0.120227006	0.107323788	5.6940467	15.0692733
8	2018	**CARBACID**	1.17	0.107423131	0.097002788	9.4280152	15.0307891
9	2017	**CARBACID**	1.38	0.130945183	0.115782586	6.8023375	15.0115441
10	2016	**CARBACID**	1.47	0.152408311	0.132252006	7.0884736	14.941014
11	2020	**EABL**	5.2	0.898789332	0.150442584	-0.83707	18.2415541
12	2019	**EABL**	11.2	0.220121003	0.040842933	-0.878528	18.2821683
13	2018	**EABL**	7.19	5.114536893	0.836455058	0.8348649	18.0816608
14	2017	**EABL**	9.71	4.561008227	0.820176493	1.0068635	18.0152103

15	2016	**EABL**	12.2	5.044181571	0.834551628	0.7707088	18.00036
16	2020	**BAT**	55.17	0.830780449	0.733284129	1.3043737	16.4131824
17	2019	**BAT**	38.86	0.898503491	0.755010409	1.3411422	16.2632024
18	2018	**BAT**	40.85	1.534512524	1.138903614	1.6656904	16.3456933
19	2017	**BAT**	33.36	1.986192229	1.386813217	1.3238359	16.2339887
20	2016	**BAT**	42.34	1.082606733	0.783576466	1.4245647	16.3131557
21	2020	**EvereadyEastAfrica**	-0.33	3.905589032	0.796150881	1.0396443	12.211483
22	2019	**EvereadyEastAfrica**	-1.4	1.259306734	0.55738635	1.5018507	12.4233027
23	2018	**EvereadyEastAfrica**	-0.55	0.310969299	0.23720563	2.5324626	13.2599804
24	2017	**EvereadyEastAfrica**	1.27	0.406432823	0.399991401	2.6948026	13.2325031
25	2016	**EvereadyEastAfrica**	-0.98	2.223294107	2.183591866	0.4537992	13.1131713
26	2020	**FlameTree**	0.19	1.294217464	0.564121303	1.1099289	14.7274109
27	2019	**FlameTree**	1.25	1.157862425	0.536578662	1.2124924	14.6401973
28	2018	**FlameTree**	0.91	2.262231346	1	1.1435539	14.4248799
29	2017	**FlameTree**	0.25	1.297827632	0.564806684	1.2906571	14.3347614
30	2016	**FlameTree**	0.06	1.115218183	0.527235532	1.5305475	14.2350055

31	2020	Kenya Orchards	0.62	2.494293317	0.39564805	-16.241419	18.6537468
32	2019	Kenya Orchards	0.25	1.444011278	0.34637 6329	-10.130146	18.728193
33	2018	Kenya Orchards	0.69	3.725445889	0.78837 9759	2.1138316	18.5566591
34	2017	Kenya Orchards	0.29	4.748237513	0.67590 7161	1.7132263	18.500215
35	2016	Kenya Orchards	0.29	4.82550726	0.91663 4575	1.9790272	17.7520628
36	2020	**UngaGroup**	0.45	0.978422804	0.49454 6869	1.5767926	16.3046479
37	2019	**UngaGroup**	4.52	0.758108204	0.43120 6795	1.9558883	16.180701
38	2018	**UngaGroup**	6.72	1.143924979	0.64598 5911	2.1418351	16.1113393
39	2017	**UngaGroup**	0.28	1.557627466	0.80892 5265	1.6579068	16.0620877
40	2016	**UngaGroup**	4.32	1.15852272	0.70788 0888	2.2985859	15.9379588
41	2020	SASINI	0.33	0.116807049	0.10459 0179	5.7365163	16.4950073
42	2019	SASINI	-1.38	0.138866617	0.12193 4048	4.253595	16.5016122
43	2018	SASINI	1	0.144615717	0.12634 434	5.7624744	16.3774847
44	2017	SASINI	1	0.964555907	0.82712 7563	4.2406537	16.3954262
45	2016	SASINI	1.5	0.938792186	0.81383 1289	5.4535342	16.3885913

46	2020	**KAKUZI**	31.74	0.240793906	0.201652375	11.222807	15.709664
47	2019	**KAKUZI**	36.4	0.238143466	0.199620199	11.003085	15.6441438
48	2018	**KAKUZI**	24.57	0.272314495	0.229066498	5.9413613	15.5295027
49	2017	**KAKUZI**	30.19	0.329495173	0.27764228	3.9020976	15.4504653
50	2016	**KAKUZI**	28.7	0.316711983	0.262100026	4.9175909	15.3518779
51	2020	**WilliamsonteaKenya**	7.59	1.019042156	0.79146454	3.9148139	15.8824455
52	2019	**WilliamsonteaKenya**	-9.39	0.975054671	0.744662362	4.0361949	15.928377
53	2018	**WilliamsonteaKenya**	21.27	0.382244857	0.275365242	2.9855244	16.0673363
54	2017	**WilliamsonteaKenya**	-6.62	0.346131581	0.252198466	3.4720833	15.9394625
55	2016	**WilliamsonteaKenya**	40.3	0.344848 94	0.259246 4	4.9562668	16.0050832
56	2020	**LIMURUTEA**	-1.53	0.203977335	0.185268059	6.9163825	12.2550866
57	2019	**LIMURUTEA**	0.79	0.214631029	0.190156119	8.3747226	12.2968224
58	2018	**LIMURUTEA**	1.06	0.389015461	0.337347612	3.5021076	12.3136033
59	2017	**LIMURUTEA**	-9.22	0.395312 55	0.333517545	3.5555415	12.3129969
60	2016	**LIMURUTEA**	-7.95	0.371786 77	0.300783017	5.1654011	12.4461638
61	2020	**ReaVipingo**	5.94	0.315071348	0.239584984	9.0203013	15.5786998

62	2019	**ReaVipingo**	6.4	0.329157199	0.247647696	8.4859645	15.4958141
63	2018	**ReaVipingo**	22.69	0.349218081	0.258829974	7.6061983	15.4447929
64	2017	**ReaVipingo**	15.6	0.272357694	0.21405749	14.198914	15.3436299
65	2016	**ReaVipingo**	23.46	0.184843501	0.150180559	13.879226	15.3803897
66	2020	**EAAGADS**	-2.07	0.123050114	0.123050114	2.2140879	13.7627225
67	2019	**EAAGADS**	0.08	0.112650812	0.101245432	6.9825059	13.7561044
68	2018	**EAAGADS**	-1.94	0.109941005	0.099051215	8.7743839	13.7166787
69	2017	**EAAGADS**	0.56	0.071023976	0.065465831	12.829478	13.73517
70	2016	**EAAGADS**	0.01	0.100051161	0.090951371	5.7284048	13.5426054
71	2020	KapchorwaTea	2.48	0.361002347	0.26524741	4.8396666	14.47923
72	2019	KapchorwaTea	-16.06	0.385265113	0.27811652	10.516648	14.5251082
73	2018	KapchorwaTea	21.27	0.489001381	0.328408951	2.9196883	14.7274089
74	2017	KapchorwaTea	-6.67	0.434339902	0.302815184	3.4627516	14.5236995
75	2016	KapchorwaTea	16.78	0.453509574	0.320206641	4.2586092	14.5784576
76	2020	**CarandGeneral**	6.85	2.021710854	0.669061651	0.865402	16.2923419
77	2019	**CarandGeneral**	4.27	2.259260	0.69318	0.87862	16.2814

				449	193	74	148
78	2018	**CarandGeneral**	5.35	1.409160727	0.49919 5346	0.99028 94	16.1352 975
79	2017	**CarandGeneral**	1.71	1.759999 011	0.63768 103	1.02986 07	16.0420 29
80	2016	**CarandGeneral**	2.22	1.996782 809	0.66630 8817	1.00543 47	16.0881 722
81	2020	**Express**	-0.64	2.125646 516	0.98257 4099	1.53440 34	14.1274 486
82	2019	**Express**	-0.46	15.87217 792	1	1.49681 55	13.0641 769
83	2018	**Express**	-1.97	-2.345031 419	0.99999 6884	0.61867 44	12.6790 157
84	2017	**Express**	-2.55	-6.358697 594	1.18661 5805	0.59742 34	12.7936 704
85	2016	**Express**	-2.74	-15.37510 785	0.93893 17	0.85207 04	12.8468 075
86	2020	KenyaAirways	-6.22	-3.672204 473	1.37422 286	0.31844 6	18.9598 722
87	2019	KenyaAirways	-2.23	-13.28945 016	1.21543 5957	0.37838 24	19.0919 555
88	2018	KenyaAirways	-1.01	-55.89513 861	1.01821 6549	0.21601 09	18.7328 164
89	2017	KenyaAirways	-6.73	-4.253790 493	1.30733 3862	0.37512 8	18.8001 03
90	2016	KenyaAirways	-	-	1.22909	0.40730	18.8633

			17.76	5.364959206	7216	99	453
91	2020	LonghornPublishers	-0.83	2.334622634	0.700115992	0.958537	14.7116655
92	2019	LonghornPublishers	0.68	1.122888263	0.528961699	1.7278692	14.6674693
93	2018	LonghornPublishers	0.49	1.315737786	0.56817218	1.9287355	14.6941115
94	2017	LonghornPublishers	0.49	0.965445921	0.491209608	2.1947024	14.4354062
95	2016	LonghornPublishers	0.66	0.970250125	0.492450229	3.1827664	14.4398134
96	2020	**NMG**	0.2	0.490054204	0.328883475	2.0402334	16.2853543
97	2019	**NMG**	4.1	0.551356204	0.355402713	1.9341299	16.3084432
98	2018	**NMG**	5.9	0.421498934	0.296517235	1.9535619	16.2312457
99	2017	**NMG**	6.9	0.386221422	0.278614524	2.0223347	16.2421081
100	2016	**NMG**	8.9	0.972641303	0.970945504	2.0739143	15.9809119
101	2020	NairobiBusiness Ventures	-1	-1.07506802	3.63695845	0.203909	10.2055162
102	2019	NairobiBusiness Ventures	-0.9	-2.681335649	3.469282911	1.5084381	10.2410306
103	2018	NairobiBusiness Ventures	-3.2	-3.725903614	2.711404905	1.6471747	10.6768543
104	2017	NairobiBusiness	-1.4	3.193954	1.30793	2.99027	11.6071

		Ventures		884	5237	63	168
105	2016	NairobiBusiness Ventures	0.08	2.118030616	0.907636357	2.7345592	11.6640315
106	2020	**SameerAfrica**	-0.23	8.438500296	0.924439075	1.4796393	13.8615875
107	2019	**SameerAfrica**	-3.82	21.1505549	0.954854404	0.866012	14.2413317
108	2018	**SameerAfrica**	-1.9	1.290965299	0.563502773	0.9037778	14.7663279
109	2017	**SameerAfrica**	0.05	0.615943377	0.381166436	1.5485106	14.9040281
110	2016	**SameerAfrica**	-2.34	0.825472402	4.592463023	1.5804945	12.7064448
111	2020	**StandardGroup**	0.62	2.621757484	0.723890955	0.5072196	15.2154218
112	2019	**StandardGroup**	-0.28	1.952375792	0.661289731	0.5969332	15.2496294
113	2018	**StandardGroup**	2.41	1.392721034	0.58206578	0.9120366	15.357982
114	2017	**StandardGroup**	-3.32	1.391434205	0.581971358	0.846896	15.3105779
115	2016	**StandardGroup**	2.14	1.121739671	0.528688645	1.1692783	15.2982352
116	2020	ScanGroup	3.77	0.658556843	0.396820914	2.325657	15.9836362
117	2019	ScanGroup	1	0.780054896	0.438219573	1.999905	16.3652036
118	2018	ScanGroup	1.37	0.699205325	0.411489603	2.069875	16.4844871
119	2017	ScanGroup	1.2	0.558412005	0.36385566	2.2816056	16.4371973
120	2016	ScanGroup	0.29	0.531180	0.34694	2.37790	16.4171

				47	0451	08	922
121	2020	TPS	-6.32	1.094969592	0.599962739	0.6656533	16.528709
122	2019	TPS	0.81	0.954786633	0.581853397	0.6649241	16.5301181
123	2018	TPS	0.69	0.925907577	0.664977947	0.4338427	16.358926
124	2017	TPS	0.36	0.90819049	0.553647452	1.0787724	16.5257867
125	2016	TPS	0.48	0.845392541	0.537458352	1.6347168	16.5057084
126	2020	**EACABLES**	-2	3.260021213	0.765259385	0.7208205	15.5959364
127	2019	**EACABLES**	2.68	1.946637809	0.660630161	0.7176156	15.6520644
128	2018	**EACABLES**	-1.92	3.398721614	0.772661221	0.2577376	15.7031346
129	2017	**EACABLES**	-2.24	2.746228182	0.733064845	0.599151	15.7668944
130	2016	**EACABLES**	-1.8	19.52744876	0.661331128	0.5977288	15.836847
131	2020	Bamburicement	2.89	0.387771284	0.26703879	1.8111729	17.7163917
132	2019	Bamburicement	1.74	0.465174904	0.30451258	1.3770641	17.709064
133	2018	Bamburicement	2.45	0.505872157	0.336159819	1.3205985	17.7346482
134	2017	Bamburicement	4.54	0.421777108	0.296654874	1.6607648	17.669968
135	2016	Bamburicement	10.41	0.368624032	0.269339149	2.6965654	17.5244622
136	2020	**CROWNPAINT**	8.42	1.948851	0.66088	0.11877	15.5437

		S		8	4959	78	731
137	2019	**CROWNPAINTS**	4.54	3.223589661	7.632761843	0.9992194	13.2215279
138	2018	**CROWNPAINTS**	2.58	4.105406774	0.695617522	0.8335553	15.6172763
139	2017	**CROWNPAINTS**	3.14	2.158639885	0.588114934	1.2621396	15.6797801
140	2016	**CROWNPAINTS**	3.77	1.406096068	0.584388997	1.1834215	15.5586958
141	2020	PortlandCement	-30.77	1.9488518	0.105789673	0.7504336	17.3759
142	2019	PortlandCement	-37.35	3.223589661	0.115328505	0.9945704	17.4139483
143	2018	PortlandCement	87.26	1.763085484	1.163186517	0.2444756	17.4426091
144	2017	PortlandCement	-16.35	0.619644517	0.382580567	0.3145623	17.1244972
145	2016	PortlandCement	46.06	0.551373061	0.355409717	0.4261985	17.1420605
146	2020	**KenGen**	2.79	0.954051107	0.488242658	1.9956594	19.8387812
147	2019	**KenGen**	1.2	1.05895009	0.514311557	1.3137696	19.8105244
148	2018	**KenGen**	1.2	0.995506424	0.498874076	1.504447	19.7539777
149	2017	**KenGen**	1.37	1.059351429	0.514410224	1.4750947	19.7482769
150	2016	**KenGen**	1.08	1.125987577	0.529630365	1.204857	19.7215501

151	2020	Kenyapower	-0.48	4.925069675	0.831225613	0.3628573	19.600158
152	2019	Kenyapower	0.13	4.84189186	0.828822576	0.386501	19.610031
153	2018	Kenyapower	0.98	4.243246833	0.809278481	0.5140346	19.6345698
154	2017	Kenyapower	2.71	4.230022343	0.808796228	0.7775528	19.6183424
155	2016	Kenyapower	3.87	3.876815899	0.794948175	0.944247	19.4839518
156	2020	TOTALKENYA	5.24	0.600398238	0.375155523	2.0516121	17.5764123
157	2019	TOTALKENYA	4.03	0.54066287	0.350928734	2.1529163	17.4415754
158	2018	TOTALKENYA	3.67	0.732058878	0.422652421	1.7697346	17.4856893
159	2017	TOTALKENYA	4.35	0.774838974	0.436568605	1.7340521	17.4534155
160	2016	TOTALKENYA	3.55	0.870113684	0.46527315	1.6454033	17.4041655
161	2020	**HOMEAFRIKA**	-0.48	-3.142081626	1.066091605	0.5946134	15.7211984
162	2019	**HOMEAFRIKA**	-0.47	-3.441953803	1.062404178	0.6289325	15.6543104
163	2018	**HOMEAFRIKA**	-0.68	-5.278402083	1.233732123	0.688109	15.3201349
164	2017	**HOMEAFRIKA**	-0.44	-7.605732663	1.151383919	0.7431881	15.3146484

165	2016	**HOMEAFRIKA**	-0.39	-8.916464391	1.126319017	0.7508028	15.1841525
166	2020	OlympiaCapitalHoldings	-0.1	0.297173	0.229092804	16.868453	14.349587
167	2019	OlympiaCapitalHoldings	0.11	0.26722827	0.21087619	1.5958581	14.3020019
168	2018	OlympiaCapitalHoldings	0.03	0.275062432	0.215724677	1.7435308	14.321655
169	2017	OlympiaCapitalHoldings	0.65	0.274644082	0.215467271	1.7463724	14.2938345
170	2016	OlympiaCapitalHoldings	0.26	0.31005795	0.236674988	2.3856666	14.2896674
171	2020	**KurwituVentures**	-71	0.001056932	0.033560405	3.0097233	14.6122914
172	2019	**KurwituVentures**	-105	0.001025169	11.51177255	3.5365279	8.41227702
173	2018	**KurwituVentures**	-36	0.00235494	18.34061697	0.6385424	8.95931162
174	2017	**KurwituVentures**	-105.06	0.002006121	10.96537442	3.0097233	9.398644
175	2016	**KurwituVentures**	-35.4	0.735971111	0.428027499	2.7407698	11.7933563
176	2020	**NSE**	0.65	0.572951914	0.542499695	13.529777	14.6541191
177	2019	**NSE**	0.3	0.683567251	0.635951375	7.8529994	14.6230577
178	2018	**NSE**	0.73	0.058518486	0.055283386	9.4962353	14.6122914
179	2017	**NSE**	0.83	0.047882435	0.045694472	12.048175	14.5613545

180	2016	**NSE**	0.71	0.080831068	0.074786033	7.3291526	14.5155067
181	2020	Safaricom	1.84	0.490248469	1.436739844	0.864099	17.7036957
182	2019	Safaricom	1.56	0.333425703	0.963369963	1.0799844	17.7267132
183	2018	Safaricom	1.38	0.351251675	1.58491734	0.6309477	17.1283138
184	2017	Safaricom	1.21	0.504215599	2.154138882	0.4642226	17.040759
185	2016	Safaricom	0.95	0.363576209	1.534507377	0.6516749	17.1354758
186	2020	**STANLIBFAHARI**	0.74	0.028605534	0.027810006	3.5906932	15.1723107
187	2019	**STANLIBFAHARI**	0.8	0.030558728	0.029652575	3.5322853	15.1709459
188	2018	**STANLIBFAHARI**	0.71	0.034553966	0.033399859	3.7441112	15.1642643
189	2017	**STANLIBFAHARI**	0.82	0.260341756	0.253735595	1.3593948	15.1403621
190	2016	**STANLIBFAHARI**	0.54	0.036108916	0.034850502	9.8500116	15.1278922
191	2020	**TRANCENTURY**	-3.30	2.492531634	1.670000255	0.2671657	16.3456134
192	2019	**TRANCENTURY**	-10.61	-2.822980927	1.548552091	0.2782157	16.3809586
193	2018	**TRANCENTURY**	-7.95	-6.043954371	1.198257146	0.2530509	16.6290121
194	2017	**TRANCENTURY**	-10.2	-168.2807	1.005977974	0.404861	16.7462223

			3	476			
195	2016	**TRANCENTURY**	-1.56	3.937914799	0.797485368	0.5036249	16.7552835
196	2020	**Centum**	10.25	0.935738051	0.483401461	1.8588256	18.4391453
197	2019	**Centum**	6.68	0.973088608	0.493180389	1.8986792	18.4381636
198	2018	**Centum**	3.96	0.887826736	0.4692986	2.4497484	18.3828551
199	2017	**Centum**	10.93	0.786498839	0.440245928	2.6063916	18.2972197
200	2016	**Centum**	11.75	0.804361684	0.445787338	2.7458555	18.1729055
201	2020	UMEME	0.9	2.318006947	0.698606389	0.5444455	18.30228
202	2019	UMEME	2.9	2.049380939	0.672056654	0.7276949	18.2549213
203	2018	UMEME	2.7	2.411332198	0.706859390	0.4467958	18.2237043
204	2017	UMEME	0.7	2.803817758	0.737096815	0.6026351	18.1762369
205	2016	UMEME	2	2.702102863	0.729883248	0.8112459	18.1068053
206	2020	**UCHUMI**	-0.1	-1.142155261	0.810205251	0.0872282	16.2940652
207	2019	**UCHUMI**	-0.49	-1.155323066	0.739097280	0.0887659	16.3491763
208	2018	**UCHUMI**	-0.2	-1.193234207	0.654485992	0.8693405	16.4219104

209	2017	**UCHUMI**	-4.61	-2.278491189	1.782169521	0.082734	15.2804513
210	2016	**UCHUMI**	-7.77	3.890597257	0.141985567	0.2587056	17.7275779