

**EFFECTS OF CAPITAL STRUCTURE ON THE FINANCIAL PERFORMANCE OF
ENERGY AND PETROLEUM FIRMS LISTED AT THE NAIROBI SECURITIES
EXCHANGE**

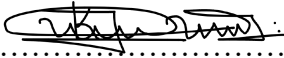
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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE
IN FINANCE, FACULTY OF BUSINESS AND MANAGEMENT SCIENCES,
UNIVERSITY OF NAIROBI**

NOVEMBER 2021

DECLARATION

This research project is my original work and has not been submitted to any other University or institution of higher learning for any academic award.


Sign..........

Date..... November 15, 2021

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D63/27848/2019

This research project has been submitted for examination with my approval as University supervisor.

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ACKNOWLEDGEMENTS

My first thanks go out to the Lord for the strength, health, and support that have allowed me to complete this undertaking. Thank you, Dr. Winnie Nyamute, for all of your hard work, guidance, and support. My idea would not have been possible without her encouragement and guidance. A special thank you goes out to our financial staff members as well. In addition, I'd want to express my gratitude to the Nairobi Securities Exchange for their assistance in making this study a success.

DEDICATION

This project is dedicated to my dear grandmother, Lucy Kahia for her tireless support and encouragement.

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ABBREVIATIONS

- CMA** - Capital Markets Authority
- NSE** - Nairobi Securities Exchange
- ROA** - Return on Assets
- ROE** - Return on Equity

ABSTRACT

Decisions regarding the appropriate mix of equity and debt or the financing options to investments and operations result to a given firm's capital structure. Suboptimal financial choices may lead to business collapse if not addressed. An efficient finance choice is one that maximizes wealth and minimizes the impact on corporate performance. In this research, the impact of capital structure on financial performance of energy and petroleum companies listed on the Nairobi Securities Exchange was investigated. Also, it reviewed the growing collection of theoretical and empirical research on capital structure and financial reporting quality. The present investigation was influenced by capital structure irrelevance, pecking order, and tradeoff theories. The present study was descriptive in nature. The target demographic was the Nairobi Securities Exchange's four listed energy and petroleum corporations. The research used a census to look at the complete population. From 2016 through 2020, data were gathered for yearly analysis. For the research, OLS was used to estimate the association between capital structure, company size, and age. It measured financial performance and capital structure. The research found a substantial association between debt to equity ratio and business size. A negative substantial association exists between Debt to Equity and Firm Size. Contrary to expectations, the research found no link between firm age and ROA. Less than 1% of the variance in ROA is explained by the model including debt to equity ratio, business size, and age. It also forecasts financial success using the debt to equity ratio, business size, and age. Ultimately, only firm age is linked to ROA. The two variables are related. So the debt to equity ratio and business size have no meaningful impact on ROA. Government officials and policymakers in the financial industry, especially regulators, the Capital Markets Authority (CMA), and the Treasury, should concentrate on financial deepening rather than capital structure or company size when attempting to increase business value. It should focus more on other determinants of firm profitability, and consequently, firm value. Additional recommendations are made to the policy makers to mainly focus on firm size when endeavoring to boost firm value, and by financial deepening in the capital markets, in order to boost the credibility of the capital markets. Thus, firms that are listed should have been substantially been in operation for some time. Recommendations are generated to the financial analysts not to mainly utilize capital structure and firm size when analyzing the financial statements of listed firms when trying to estimate their future returns and value. They should focus more on other determinants of firm profitability, and consequently, firm value. However, additional recommendations are generated to the financial analysts to utilize firm age when analyzing the financial statements of listed firms when trying to estimate their future returns and value. Finally, recommendations are generated to consultants and listed firms practitioners not to mainly utilize capital structure and firm size when trying to bolster firm profitability and value. They should focus more on other determinants of firm profitability, and consequently, firm value

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

A firm's capital structure includes debt, long-term debt, and equity. An explanation is given of how the company's operations and development are supported via several sources of financing. This includes the firm's debt-to-equity ratio, which indicates the level of risk the company is taking. A company's capital structure sets the correct mix of equity and debt for investments and operations. The downfall of a company may be attributed to poor financial choices that have not been addressed. A company's overall goal is to maximize wealth, and the effectiveness of each financing decision is measured by evaluating its influence on the company's financial performance (Mwangi, 2014).

A company's basic resource is the cash flow stream yielded by the assets. When the company is financed wholly by a particular stock, the entire cash flows are channeled to the stakeholders. When both equity and debt securities are issued, it purposes to divide the cash flow into a safe stream which belongs to the debtors and a riskier one that belongs to the stakeholders. Financial institutions and academics have spent a long time trying to find the best capital structure for companies, and this is the most important problem in corporate finance. This is understandable as there are immense returns to be made advising companies on how to structure, improve and have an optimal capital structure.

Capital structure or finance decisions are important management decisions that have an impact on the return and risk to investors. A company's capital structure influences its stock price. A company's capital structure should be determined early on. The raising on funds involve the

adjustment of the capital structure. When new funding decision is made and funds generated it impacts on the capital structure hence financing decisions calls for critical analysis. (Ruzben J. Bodhanwala, 2012).

According to Coleman and Robb (2017), a company's capital structure options are described as the mix of stock and debt it uses to support its operations and development goals.. Since 1958 when Modigliani and Miller advanced the MM model, capital structure is a subject of interest in financial economics. Modigliani and Miller posited that in ideal markets with identical expectations, the capital structure choice of a company is meaningless.

Abbadi (2012) observed that efficient companies have a higher potential to earn optimum returns from a particular capital structure. In light of these returns, the company's capital structure is becoming more flexible by substituting more of its debt for stock. Efficient differences enable organizations to change their optimum capital structures in accordance with the trade-off hypothesis.

1.1.1. Capital Structure

Even though many academics have discussed the varying debt-to-equity ratios of different organizations, the issue of capital structure remains a difficult one. The original theories on capital structure held the perfect capital market scenario which were backed up by theoretical presumptions. Rogers and Campbell deciphered the challenge that arises in corporate finance when firms assess their cash holdings, debt, and stock compensation schemes at the same time (2018). An ideal capital structure has been determined by Ardalan (2018). Over the course of six

years from 2006 to 2016, the capital structures of high-end enterprises in the European Union's six most populous countries were found to be uneven (Rogers and Campbell, 2018). According to DeAngelo and Roll (2015), stable capital structure is rare in US enterprises.

Since the 1950s, capital structure has been studied extensively to identify the best debt-to-equity ratio that reduces capital costs and raises a company's value (Tian and Zeitun, 2007). Durand (1952) propagated this study and the assumption could be upheld to the extent where increased debt pushes the creditors and shareholders to demand higher returns due to higher insolvency risk.

Modigliani and Miller (1958) rejected the earlier theory of capital structure and corporate value. Without considering the market's intrinsic flaws, scholarly articles have detailed real-world capital structure. For example, Baker and Wurgler (2002), Jensen and Meckling (1996), the pecking order theory (Myers, 1984), Brealey et al. (1977), and Miller (1976) have all proposed explanations for market timing in previous years (Miller and Modigliani. 1963).

Every company must have a solid financial structure. A company's capital structure is greatly influenced by its financing decisions. Capital structure choices made in closed-door meetings between shareholders and managers of the firm may not result in a company's profit maximization, but rather the preservation of the management interest (Psillaki & Dimitris, 2018).

1.1.2. Financial Performance

The ability of a company's assets to generate profits is measured. Company profitability over a period of time is what this refers to. Various methods are used to evaluate a company's financial performance, including financial analysis, operational efficiency, solvency, and leverage, to determine profitability, operational efficiency, profitability, and solvency. The hurdle is determining the appropriate ratios to use and interpreting the findings. The firm's financial performance is also measured using operating income, total unit sales and cash flow from operations.

The profitability of a company's assets is a measure of its financial success, according to Ndungu and Ngugi (2015). Maintaining consistent cash flow is regarded as financial success by Khawaja and Musleh (2014). A company that is able to sustain stable cash flow over a fair period of time can withstand economic downturns. Every industry's financial performance may be assessed using profit as a key criterion (Aura et al, 2013).

When it comes to measuring a company's financial health, ROA, NIM, and ROE are three of the most commonly used financial metrics. (McShane and Sharpe, 2015). Methods for evaluating financial performance include trend analysis, cross-sectional analysis, and ratio analysis. According to Sharpe and McShane (2015), the use of financial measurements to evaluate a company's financial performance is objective since they do not take into account its size.

According to McShane and Sharpe (2015), ratios provide an easier comparison of different firms with different sizes. Profitability, turnover, liquidity, valuation, and leverage ratios are the five

categories of ratio analysis. In order to properly evaluate and analyze energy companies, one must use specific ratios. Asset quality and profitability are among the factors considered.

1.1.3. Capital Structure and Financial Performance

There is no information symmetry in capital markets because the capital structure does not change the market value of the company. Ebaid (2019) looked at the capital structure of Egyptian non-financial public enterprises between 1997 and 2015 to see how it affected growth. Analysis was done using multiple regression. Sixty-six non-financial companies were the focus of the investigation.

There was a considerable negative impact on financial performance from short-term and overall debt, while long-term debt had no effect. A study by Mwangi (2010) identified a substantial link between ROE and leverage in evaluating financial success.

1.1.4. Firms Listed on the Nairobi Securities Exchange

The Nairobi Securities Exchange (NSE), one of Africa's major stock exchanges, was established in 1954. Kenya's financial sector relies heavily on the National Stock Exchange (NSE). It mobilizes domestic savings, allowing idle financial resources to be channeled to productive economic sectors (Fredrick, 2015). The exchange of stocks between investors trading at the NSE improves the market liquidity. This occurs when long term investments including treasury bonds are subscribed.

The exchange market promotes the involvement of local investors as holders of equity mainly in foreign entities which want to invest in the country enabling Kenyans to have ownership in those businesses. The exchange market as well promotes companies listed in the securities exchange to mobilize funds for growth of their businesses. In addition to playing a significant role in the privatization of companies that may experience numerous challenges, the NSE ensures that international capital flows into the economy (Gakeri, 2012).

The NSE is home to 64 publicly traded businesses with a combined market capitalization of \$23 billion and daily trading volumes exceeding \$10 million. MIMS (Main Investment Market Segment), Fixed Income Segment, and Alternative Investment Markets Segment) are the three main market segments (AIMS). The MIMS serves as the mainstream market, the AIMS is a substitute avenue for mobilizing capital by startups by those who may not meet the stringent MIMS listing qualifications. Preferred shares, Treasury bonds, Debenture Stocks, and Corporate Bonds, in addition to short-term financial instruments like commercial papers and treasury bills, are all available on the FISMS's independent market (Gatua, 2013).

1.2 Research Problem

Researchers and analysts have paid increasing attention to the structure of the capital in the economy in recent years. Corporate finance is the focus of many studies and study throughout the years because of this fascination. A company's capital structure has minimal effect on its market value, according to Modigliani and Miller (1958). But Modigliani and Miller asserted in 1963 that raising the capital structure's share of debt would raise the firm's value due to debt's advantages. Since this research was initially published, Modigliani and Miller Tian and Zeitun

(2017), Kajola S.O. and Onaola, A. (2016), and Saedi A. (2011) have been examining the influence of capital structure on firm performance.

It is vital for any firm to choose the best financial structure. The choice is critical in order to maximize the return on investment. Decisions about a company's capital structure have an impact on its competitiveness. Modigliani and Miller were not the first to study a company's capital structure (1963 and 1958). No one knows the perfect capital structure despite significant research. For example, the analysis was required since there was no consensus on what constitutes final capital structure.

In the view of Jensen and Meckling, capital structure has a significant link with corporate success (1976). In order to figure out the link between financial leverage and company success, several studies were carried out. Unconvincing findings were made and published. Other studies have discovered beneficial relationships, including Ghosh et al. (2010), James and Hadlock (2012), and others. Scholars such as (French and Fama 2018) and Li and Simerly have documented a negative correlation between debt and performance (2010). However, limited studies have focused towards advanced economies Mayer (2010), Singh (2015) for instance Cherian (2016), Subramanian and Cobham (2018)

Booth et al. (2011) explored the variables impacting emerging nations' capital structures. This research focused on ten nations in the developing world. In spite of institutional differences, the data demonstrated that the structures describing capital structure are the same in both rich and

developing countries. The first research on the relationship between capital structure and financial performance was undertaken by Kenyan scholars.

1.3 Research Objective

To examine the influence of capital structure on the financial performance of NSE listed energy and petroleum companies.

1.4 Value of the Study

To examine the impact of capital structure on the financial performance of NSE-listed energy and petroleum companies. The research will help corporate finance managers build a plan for funding assets and operations to optimize value.

This study attempts to assist investors make educated investment choices that result in a positive return on their money by examining how a company's capital structure effects financial performance. It is anticipated that the outcomes of this research will be useful to both current and future academics and students.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section examines the impact of capital structure on financial performance, as outlined in the literature. New information may be gained by the review of theoretical and empirical literature. This will be followed by summary of literature.

2.2 Theoretical Review

Studies of theoretical nature investigate the fundamental principles of the study and offer an overview of past studies on the issue. Theoretical frameworks such as the pecking order and the balance of benefits and costs.

2.2.1 Capital Structure Irrelevance theory

A perfect capital market, according to Modigliani and Miller's 1958 capital-irrelevant theory, would have no transaction or tax costs, pay 100% dividends, confront the same risk environment, and be able to borrow and lend at the same interest rates, regardless of capital structure. Therefore, it is the compounding of risk and earnings potential and not capital structure adopted that determines their financial performance. This insinuates that firms operating within the confines of one business environment have homogenous risk structure and hence have a similar earning capacity.

The proponents alluded that these companies have the same market potential regardless of their financing approach. They argued that in the event that companies experience different values, the investors whose rate of borrowing is similar to that of corporates will indulge in arbitrage acts by

switching investments to purchase securities in the undervalued company and selling to the overvalued firm. Subsequently, the demand of securities in the undervalued firm will rise and decrease its demand in the overvalued company thus bringing market valuation at equilibrium.

The theory has received criticism mainly due to its assumption that the firm operates in a perfect market. The proponents assume that each firm belong to a definite risk class with same income across different nations in the world. According to Stiglitz (1969), this hypothesis is not representative since firms operate in different business environments. The assumption that the firm's borrowing rate is equal to that of corporates is not factual since there are varying restrictions for lending to individuals and corporates. Therefore, the home-made leverage assumption is invalid.

Frank and Goyal (2003) dispute the methodology on which the theory is founded on a null and void mathematical model since an actual collection and analysis of data was not conducted to arrive at this conclusion. Recent studies on capital structure have employed the quantitative approach to analyze modern theories and very little quantitative techniques (Graham and Harvey, 2001).

Regardless the limitations, the capital structure theory by Modigliani and Miller was considered a breakthrough (Jensen and Meckleng, 1976). Although the theory fails to explain how firms obtain the resources to finance operations, it shows why financing is important. Additionally, Miller (1988) observes that the theory has been widely embraced as the groundwork for economic theory. Since research shows a substantial link between capital structure and financial

performance, this concept is essential. The theory's implication that financial choices are irrelevant to the company necessitates an actual study of the connection within the chosen population.

2.2.2 Trade-off Theory of Capital Structure

Modigliani and Miller developed the trade-off hypothesis (1963). In the theory, it is argued that the ideal financing mix is achieved by balancing the advantages and disadvantages of borrowing money. Refuting their prior premise of a perfect market in their theory of irrelevance. By admitting that taxes are not sustainable, the theorists revealed that the corporate market value is indeed affected by the capital structure.

They believe that since interest on debt is taxed, it provides more liquidity to leveraged companies, increasing their market value. As a result, the theory states that in the situation of a constant interest rate and permanent debt, debt financing's interest tax shield provides better market value for leveraged firms.

Even though using an agency is more expensive, Jensen and Meckling (1976) argue that it's worth it. The friction between management, shareholders, and debt holders attracts agency costs. It mainly arises when the managers fail to fulfill the shareholder's interests and purpose to focus serve their interests resulting to decisions that do not maximize return on investment and loss of cash-flow. To avert the occurrence of such incidences, debt-holders often seek the services of professional analysts and introduce debt restrictions and covenants. Such moves often increase the agency costs weather the gains of debt financing and subsequent reduction of firm value.

Myers (1977) advanced the bankruptcy costs dimension by purporting that although the firms benefits via debt financing benefits inform of tax shields, the benefits of leveraging debt are not immeasurable. Debt puts the company at risk of bankruptcy, which raises the likelihood of the company defaulting on its debt. Debt consumption raises the risk of financial instability and decreases the incentive to invest in equity. Additionally, the stockholders tend to demand for a higher return on investment when their capital is exposed to higher risk. Debt holders lack the motivation to pump more capital to the firm as opposed to equity holders which results to more cash outflows to the company. Through combination of the bankruptcy risk and the theoretical effects of the agency costs, the benefits of the tax shields earned from firm debt are offset by present values of the agency costs and bankruptcy.

Unlike the irrelevance theory, the trade-off theory advocates moderate gearing levels. This idea suggests that shareholders' wealth may be maximized by maintaining an efficient capital structure (Brounen & Koedijil, 2006). A profitable firm experiencing less financial distress should utilize debt to the fullest (Hovakimian & Tehranian, 2004). Modigliani and Miller showed that reduced interest payments had tax benefits (1963). Mayers added to static trade-off theory by combining Scott and Kraus' bankruptcy cost framework with his own model of trade-off (1976). The costs of debt and bankruptcy are connected. In addition to these expenditures, the loss of loyal consumers and a decrease in the confidence of suppliers and employees are also a consequence. A cost-benefit analysis of debt should take into account the other advantages that bankruptcy would provide in addition to eliminating the value tax shields, according to the generally held view. (Ju et al, 2015). Such an acknowledgement is made in the trade-off model of Jensen and Meckling (1976).

The theory is applicable to the study since expounds on how debt financing improves the value of the firm via the tax deductibility attribute. Further, the theory presents the concept of agency costs and financial distress and demonstrate how the capital structure may deteriorate the firm's financial performance due agency costs attached to debt.

2.2.3 Pecking Order Theory

Myers and Majluf (1984) expanded pecking order theory by introducing the concept of information asymmetry. Theory suggests that the existence of knowledge asymmetries between capital providers and enterprises separates distinct financing options. For example, when a company uses internal sources of financing rather than external sources like stock and debt, the outsiders expect a larger return on investment. Therefore, it is costlier for the firm to acquire external capital compared to leveraging internal capital.

The principle of information asymmetry could also be propagated from the perspective that the insiders who constitute the directors and the managers understand the firm's earning potential than the outsiders which may make the outsiders to undervalue the firm. Based on the principle that the managers aspire to maximize the shareholders' interest, they decline to offer the undervalued shares and only on the condition that the value of transfer to new shareholders can be offset by the current value of growth potential. Shares will be traded at a premium to the firm's actual market value as a result.

To investors, an issue of stock is an indication of overpricing. If external financing is the only option available, then the firm will go for more secured debts and not risky debts. When given

the choice, companies prefer to use internal resources rather than expensive external ones (Myers and Majluf, 1984). Because profit-making companies are anticipated to use less loan capital, the pecking order hypothesis holds. Managers will issue loans first if the company's internal capital is insufficient to protect shareholders from the diluting impact. Once it is clear that the market recognizes the firm's potential, external equity is only sourced.

To the pecking order, fear of bankruptcy and the ability to defer paying interest taxes are more important considerations than the trade-off theory. Because of an imbalance between internal cash flow, investment possibilities, and the value of dividends, the theory claims that gearing ratios are altered when it is essential to get external money (Myer & Shyam, 1999). Therefore, external funds will be sourced by firms whose investment requirements exceed internally generated funds. This implies that every firm's debt ratio is a reflection of external funding and profitable firms with limited opportunity for growth use their surplus cash to repay debt as opposed to purchasing additional shares.

The theory argues that there exist a detailed financing framework but not a well-defined debt ratio as alluded by the trade-off theory. The makes preference to utilization internal funds as opposed to external funds to ensure firm stability and preserve firm value. As a result, the usage of external debt raises the likelihood of financial difficulties.

2.3 Determinant of financial performance

According to Randall (2015), the determinants of the financial performance are categorized into internal and external factors. Siddiqui, (2015) argues that decisions and policy objectives by

management significantly influence internal factors. External factors such as Industry-related factors, the legal environment and macroeconomic variables impact a firms' financial performance. The common internal factors are firms size, risk level adopted, management efficiency and information technology adopted.

2.3.1 Firms Capital Structure

Risk, scale, and short-term leverage all have a substantial impact on a company's financial success (Izedonmi, 2014). Companies from a variety of sectors in Jordan were analyzed to see whether capital structure and performance were linked. The research examined 45 Amman Stock Exchange-listed manufacturing-related companies. The data covers 2005-2009. The impact of capital structure on a company's success was studied using ROA, debt-to-equity, and profit margin. The four endogenous variables showed statistically significant connections. The debt-to-equity ratio reduces profit margin whereas the ROA increases it. The correlation between long-term debt to total assets and profit margin is statistically significant. It is possible to evaluate the short-term debt to total asset ROA ratio. No clear evidence links a company's financial structure to its performance.

Size, tangibility, profitability, taxation, growth potential, volatility, debt tax shields and industry categorization were all factors that Chenesai (2019) looked at in relation to capital structure. According to him, leverage has a favorable effect on scale and a bad impact on profitability. The link between leverage and tangibility was likewise shown to be negative. Growth potential (P/B ratio) is negatively linked to leverage. Equity funding is preferable to debt financing for companies that have the potential to develop in the future. Tax benefits of leverage were shown

to outweigh the disadvantages of non-debt tax shelters. There was no correlation between volatility and leverage.

Research on ICT businesses listed on Shenzhen and Shanghai stock exchanges was conducted in 2018 by Chenesai in a similar fashion. The company's financing structure had a detrimental influence on profitability. Richard et al. claim that the capital structure of listed Kenyan commercial banks has a significant detrimental impact on their financial performance (2019).

From 2003 to 2012, approximately 1200 listed Swedish, German, and Chinese companies were studied to see how capital structure affects corporate performance. After 2008, China's capital structure hampered its performance, although it aided two European nations' performance before and after the crisis.

A recent study by Rajan et al. (2015) indicated that the design of Egyptian firms' capital structures had a substantial influence on their performance. The association between leverage levels and corporate performance was studied using a multiple regression model. In all, the research was conducted between the years 1997 and 2005. We evaluated the organization's financial health using metrics including return on assets, return on equity, and gross profit margin. According to the analysis, capital structure had no influence on earnings. The authors studied 36 Pakistani engineering organizations using an OLS method. In contrast, financial leverage and performance using ROE as a proxy had a low association with gross profit margin, Tobin's Q, and return on assets.

2.3.2 Debt

Debt refers to any money owed to an entity or individual for which a cash outflow is expected at a specified period in time to settle the obligation. Debt is issued by businesses and government as tradeable securities to be repaid within a specified period. Debt finance refers to fixed return to finance where interest is payable based on the value of the debt. The use of debt is ideal where the equity base is broad. Debt is an external source of financing which is only accessible to qualifying firms and is available in limited proportions.

2.3.3 Internal Equity (Retained Earnings)

Profits retained for future investment as opposed to being issued as dividends needs constitute internal equity. It is the opportunity cost for ordinary shareholders. When keeping earnings is cheaper than issuing new ordinary shares, the company keeps more cash and pays fewer dividends to shareholders. It keeps more cash and pays fewer dividends to shareholders when keeping profits costs less than issuing new ordinary shares. It's a fact that Ilhomovich, 2019. Furthermore, retained earnings is preferred as an internal finance source since there are no floatation costs. Further, ownership and control of the firm is not diluted. Where a firm can grow sustainably through access to internal equity, there lower financial risk and therefore a higher share price.

2.3.4 External Equity (Ordinary Shares)

External equity is mobilized by selling ordinary shares to the shareholder. This financing option is only available for limited companies. It is a fixed source of financing since the shareholder may only recall funds through liquidation. It is the basis through which finances are mobilized.

Ordinary share capital earn ordinary dividends which is a variable return. Additionally, they have voting rights that influence the company's annual general meeting (AGM) decision-making process (Kochhar, 2017).

2.3.5 Preference Share Capital (Quasi-Equity)

Preference share capital combines the advantages of both debt and equity into a single package. Ordinary share capital is preferred over preferred stock because it receives dividends and the revenues of assets first. It has a fixed return unlike the ordinary share capital. It earns no voting rights and improves the gearing ratio of the company. Preference share capital are grouped as either redeemable or irredeemable shares. In redeemable preferential shares, the issuing firm may purchase back the shares before the expiry of the maximum redemption period upon which they become creditors. On the other hand, the company cannot redeem the irredeemable business shares unless when under liquidation (Margaritis, 2010).

2.4 Empirical Review

Pakistani businesses' financial performance was studied by Abdul (2012). It was discovered in the study that having a lot of debt has a significant negative influence on one's ability to perform. Tobins Q and ROA were used in the research to estimate performance. Tobin's Q proved to be a more accurate performance indicator. Performance was estimated by comparing Tobin's Q and ROA. A more precise performance measure, Tobin's Q, emerged. According to the investigator, Tobin Q's sensitivity to debt outweighed his sensitivity to ROA. A similar study by Javed and Ahtar (2012) examined the firms quoted in Pakistan's Kerachi Stock exchange. Adbul found no

link between capital structure and performance (2012). Total debt has a beneficial influence on an organization's performance according to regression and correlation studies.

New Zealand-quoted companies' performance was studied by Safarova (2010). The study found that total debt as a proxy of debt ratio influenced firm performance to the greatest extent. This effect was significantly higher when the relationship was moderated by growth rate and size. The research found that as a company's size grew, so did the repercussions of its debts. Researchers Javed and Mizra (2013) investigated the factors that influence the performance of publicly traded Pakistani companies. In large organizations, debt has been shown to have a significant impact. Risk management and an appropriate ownership structure are in place for large corporations.

Sorana (2015) studied how a company's capital structure affects its performance. Debt has a significant influence on a firm's financial success. In addition to growth, risk was identified as a vital factor for enhancing the financial performance. He noted that the firm's ability to leverage on debt for tax advantage reasons boosted the firm's financial performance. Unlike Sorana, Salim and Yadar (2012) determined that company structure had no impact on Malaysian listed businesses' performance. Debt reportedly hampered Malaysian businesses' financial performance.

Salteh evaluated the influence of the performance of the capital structure via the use of five metrics (2012). ROA, Tobin's Q (Q), earnings per share (EPS), and ROE are included. A total of 28 Tehran Stock Exchange (TSE)-listed Iranian firms were scrutinized between 2005 and 2009.

However, except for Tobin's Q and ROE, all other capital structure variables were positively impacted by firm performance notwithstanding Tobin's Q and ROE.

According to Mahmoodi and Saeedi (2011), the Tehran Stock Exchange's listed companies' long-term debt and overall leverage had an effect on their performance. The link between the two parameters and the performance of the participants was found to be relatively moderate. Fosu (2013) used panel data to assess 257 publicly listed South African companies' capital mix and performance. This new research contradicts the results of the previous study.

Debt was examined by Adenkula & Sunday (2018) for its impact on a variety of performance measures. According to the research, ROA and ROE are negatively impacted by a high debt ratio.. According to Ebaid (2018), capital structure and company performance in Egypt are consistent with the results. The results of a multiple regression study showed a link between debt ratio and performance. In fact, Kaumbuthu (2011) found a link between debt and ROE that was negative. Between 2004 and 2008, this study focused on NSE-listed industrial and affiliated firms.

2.5 Conceptual Framework

It is said that conceptual frameworks are necessary for research questions and objectives to be grounded in appropriate knowledge structures, as stated by Plakhotnik and Rocco (2009). Clearly illustrated, the structure enables the researcher to make deductions. For this research, the response variable was financial performance and the capital structure was the study's predictor

variable. Size and age were the two control variables in the research. conceptual structure shown in Figure 2.1.1.

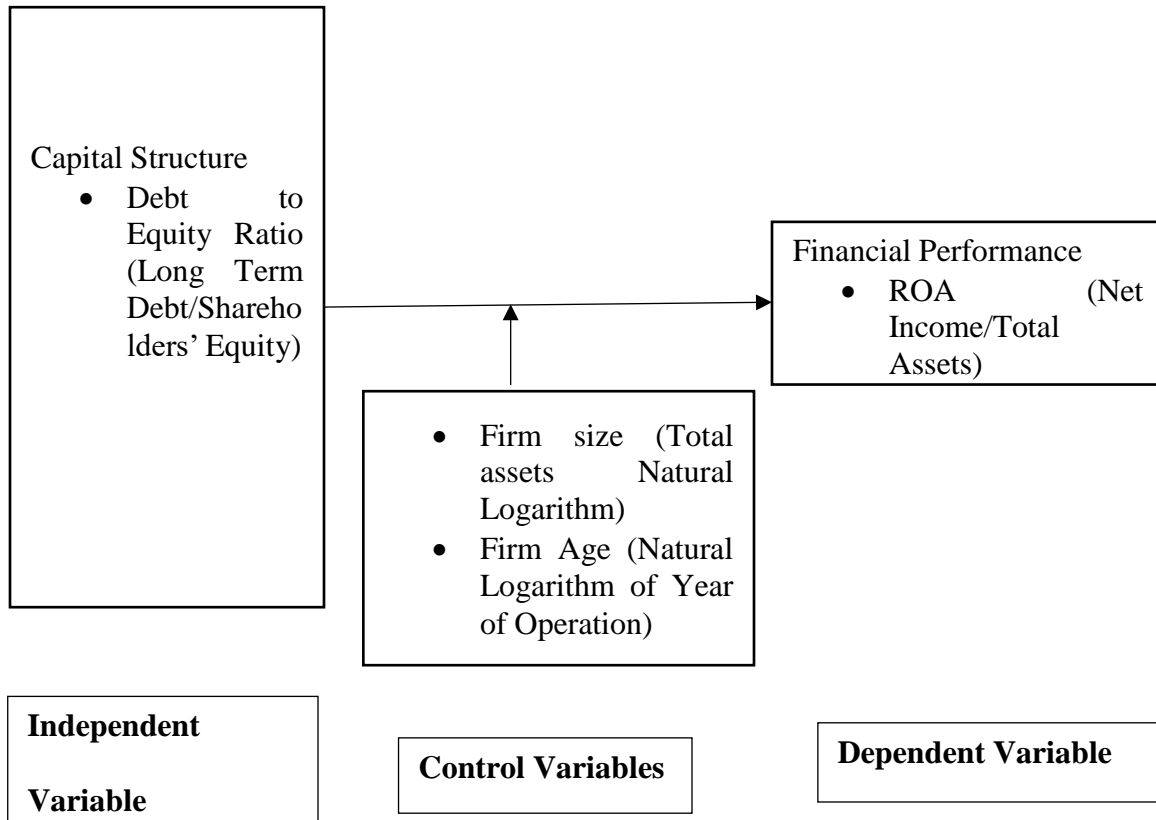


Figure 2.1: Conceptual Framework

2.6 Summary of Literature Review

No influence of capital structure on value, according to MM (1963). Long-term debt boosts a firm's market value through lowering capital and corporate taxes. A firm's capacity to generate profits is closely connected to the composition of its capital. The major purpose of current study on this area is to identify potential problems in capital structure and financial performance.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the study's research methodology. This chapter has many subsections, including research design, which outlines the study's design, and target population, which describes the demographic of interest. Data collection is also looked into where data required is specified and how it is going to be collected. Finally, the chapter show the data analysis technique that will be applied by the researcher.

3.2 Research Design

As per Creswell (2015), a research design is a plan for doing research. On the basis of this, the research subjects and the study site are selected. It is a systematic plan to study a problem and it involves the actual execution and implementation of the research plans. The study utilized the descriptive research design in a bid to measure the data trends that exists in reference to the topic of study. Nassaji (2015) claims that descriptive methods allow researchers to examine and evaluate various forms of data to identify patterns. The descriptive research approach was chosen because it could be used to describe a wide variety of phenomena and their features. In addition, the data sets produced through the descriptive method help to summarize and support assertion of facts. Using ideas and literatures from several disciplines, this investigation was a formal one. In addition, since the variables were assessed rather than modified, the research was an ex post facto one. In a field study, the nation was the unit of analysis. The study technique, variables used, and data collecting methods were all taken into consideration in this design.

3.3 Population of the Study

A population is a collection of individuals who share a trait (Mugenda and Mugenda, 2013). NSE-listed energy businesses were a part of the study's population. They only looked at firms listed as of December 31st, 2020 since that's when the study was done. The NSE-quoted energy companies were sampled using the census method.

3.4 Data Collection

The data collection method used has a big influence on the study's outcome. Secondary data was gathered from each energy and petroleum company's annual reports and financial statements. The analysis took one year. From 2011 through 2020, data was gathered on a yearly basis. Financial data such as earnings per share, assets as a whole, long-term debt, and equity held by shareholders were analyzed. The data collected was panel data, data for various firms was collected over a period of time.

3.5 Data Analysis Technique

In order to simplify the analysis, interpret and comprehend the data collected, it was arranged, tabulated, and simplified. The panel data was analyzed using STATA Version 14, a statistical analysis tool. Regression and correlation analyses were performed. According to a correlation analysis, NSE energy and petroleum businesses' financial performance is strongly linked to their capital structure, company size, and firm age. Regression analysis, on the other hand, was used to ascertain the importance of the linkage between the study variables. Using tables, the quantitative results were made clear.

The research used a 95 percent level of confidence. At 0.05 level, the findings were set to be statistical significant and this means that for values to be significant they ought to be below 0.05. The model's accuracy was assessed using a statistical inference approach when it came time to make financial predictions. A 95 percent confidence threshold was used to assess the model's relevance. Predictors and response variables are linked via significance values.

3.5.1 The Model of Analysis

The study goals were met by conducting multiple linear regression analysis, which assessed if the independent variables had any influence on financial performance. Assuming a 95 percent threshold of significance, a margin of error of 5% may be expected in the statistical tests that were conducted. The model described below was utilized;

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + E$$

Where:

Y – Return on Asset (ROA)

$\beta_1 - \beta_4$ = Beta coefficients

X_1 – Capital Structure

X_2 – Firm Size

X_3 – Firm Age

ϵ = error term

3.5.2 Diagnostic Tests

Many assumptions must be made to guarantee linear regression models are viable. A normal distribution of error terms is optionally assumed, as is random sampling of data and zero conditional mean. For the linear regression model's first five assumptions, OLS Regression estimators are the best linear unbiased estimators, according to Gauss-Markov Theorem (Grewal et al., 2004). Assumptions such as these are critical when doing regression, and a violation of any of them might result in inaccurate results. If the confidence intervals were violated, the regression estimations of the estimate's variance would be incorrect, resulting in either too wide or too narrow confidence intervals (Gall et al., 2006).

To get the Best Linear Unbiased Estimators, the researcher needs undertake diagnostic tests to ensure that the assumptions are satisfied. Regression diagnostics examine model assumptions for unjustified interpretations. The data collected was subjected to diagnostic test such as autocorrelation, multicollinearity, linearity and normality so as to find if it is appropriate for conducting linear regression model. The Shapiro-Wilk test was used to determine normality; it is effective for determining the normality of Gaussian distributions with specific means and variances. The dependent variable's variance will be proportional to the independent variable's (Gall et al., 2006). The Breusch-Pagan Cook-Weisberg test was used to assess linearity.

Variance Inflation Factors (VIF) was applied in testing for multicollinearity and showed whether the predictor variables have a significant correlation on each other. According to Grewal et al. (2004), small sample sizes, poor measure reliability, and low explained variables in the

independent variables are the key causes of multicollinearity. According to a Durbin-Watson Statistic, there was no indication of autocorrelation.

The panel data was also subjected to unit root testing in order to weed out any potential regression errors. Before doing unit root testing, no estimation method may start unless the macroeconomic variables under consideration have been integrated in order one (1, 1). The unit root test of Fisher type was employed. For the purpose of determining whether or not the applied variables have a fixed influence across time, the Hausman specification test was performed. Both the null and alternative hypotheses stated that variables had random effects. It is rejected if the significance value is less than (0.05) and approved if it exceeds (0.05).

Table 3.1: Operationalization of the Study Variables

Variable	Measurement
Financial Performance	Denoted by Return on Assets = Net Income/Total Assets
Capital Structure	Denoted by Debt to Equity Ratio = Long Term Debt/Shareholders Equity
Firm Size	Denoted by Ln total assets
Firm Age	Denoted by Ln Years of Operation

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1 Introduction

The preceding chapter's findings are explored in this chapter's data analysis. Sections include diagnostic tests, inferential statistical analysis, and an explanation and discussion of the findings.

4.2 Response Rate

As noted in Appendix II, this research targeted all four energy corporations that are publicly traded on the NSE. A census was conducted to ascertain the number of publicly traded enterprises in the energy industry. All the data for the four companies for ten years was obtained for the study analysis. Thus, the study response rate was 100%.

4.3 Diagnostic Tests

The best linear unbiased estimators were tested prior to undertaking linear regression (BLUE). This research used normality, homoscedasticity, multiple-collinearity, and autocorrelation tests. The Shapiro-Wilk test was employed to assess normalcy. Test of Breusch-Pagan was employed to determine while to establish multi-collinearity, tolerance and VIF were adopted. The Durbin-Watson d statistic was utilized in the study to test for autocorrelation. Panel regression of fixed or variable effects was tested using Hausman tests, while unit root tests were done using Fisher's type unit roots.

4.3.1 Normality Test

Table 4.1 emphasizes testing of normal distribution for the study variables.

Table 4.1: Normality Test

Variable	Obs	W	V	Z	Prob>z
ROA	40	0.97333	1.054	0.111	0.45565
DebttoEqui~o	40	0.87916	4.776	3.291	0.00050
FirmSize	40	0.88819	4.42	3.127	0.00088
LnFirmAge	40	0.757	9.605	4.761	0.00000

These variables have significance values less than 0.05, as shown in Table 4.1. Thus, the variables' data series are non-normal. Non-normal data may be normalized. All variable data series were thus normalized to address distribution non-normality. However, the ROA variable's significance value is smaller than the (0.05). Thus, the variable's data series is normal.

4.3.2 Homoscedasticity Test

Table 4.2 includes homoscedasticity tests of every independent variable used in the research. The test is used to establish if all the predictor variables have a constant variance.

Table 4.2: Breusch-Pagan/Cook-Weisberg Test for Heteroscedasticity

<u>Breusch-Pagan / Cook-Weisberg test for heteroskedasticity</u>	
Ho: Constant variance	
Variables: fitted values of ROA	
chi2(1)	= 1.92
<u>Prob > chi2</u>	= 0.1654

No heteroscedasticity is the null hypothesis. The research used a 5% significance threshold. The analysis found that (Prob > chi2= 0.1654) is below the study critical value of ($\alpha=0.05$), so the null hypothesis is not rejected. Thus, the study's predictor variable data series are all homoscedastic.

4.3.3 Test for Multicollinearity

Multicollinearity is tested using Variance Inflation Factors (Table 4.3).

Table 4.3: VIF Multicollinearity Statistics

Variable	VIF	1/VIF
LnFirmAge	3.04	0.328418
DebttoEqui~o	2.24	0.44689
FirmSize	1.8	0.554023
Mean VIF	2.36	

In statistics, the general principle is that the VIF values ought to be more than 1 and less than 10. All independent variables have VIFs greater than 1 but less than 10. This indicates that the independent variables used in the research do not show multicollinearity.

4.3.4 Tests for Autocorrelation

The Durbin Watson statistic was used. 4, 40): 1.247083 It normally varies from 0 to 4. In the absence of autocorrelation, the value 2 is revealed. Positive autocorrelation is indicated by a Durbin Watson score of 0 to 2, whereas negative autocorrelation is indicated by a score of 2 to 4. A Durbin-Watson statistic of 1.5 to 2.5 is deemed normal, but anything other is grounds for concern (Shenoy & Sharma, 2015). Field (2009) warns against finding more than 3 and fewer than 1. Dense panels with Durbin Watson d statistics satisfy the given criterion, hence there is no serial autocorrelation.

4.3.5 Unit Root Test

Table 4.4 presents the unit root test findings, which was undertaken on the data series financial ROA.

Table 4.4: Unit Root Test for ROA

Levin-Lin-Chu unit-root test for ROA		
Ho: Panels contain unit roots	Number of panels =	4
Ha: Panels are stationary	Number of periods =	10
AR parameter: Common	Asymptotics: N/T \rightarrow 0	
Panel means: Included		
Time trend: Not included		
ADF regressions: 1 lag		
LR variance: Bartlett kernel, 6.00 lags	average (chosen by LLC)	
	Statistic	p-value
Unadjusted t	-3.8342	
Adjusted t*	-2.9872	0.0014

It claims that ROA is stable and has a unit root. The null hypothesis is rejected since the research's significant value ($\alpha=0.05$) is less than the study's crucial value.

Table 4.5 exhibits the findings of the unit root test done on the debt to equity ratio.

Table 4.5: Unit Root Test for Debt to Equity

Levin-Lin-Chu unit-root test for DebttoEquityRatio		
Ho: Panels contain unit roots	Number of panels =	4
Ha: Panels are stationary	Number of periods =	10
AR parameter: Common	Asymptotics: N/T \rightarrow 0	
Panel means: Included		
Time trend: Not included		
ADF regressions: 1 lag		
LR variance: Bartlett kernel, 6.00 lags	average (chosen by LLC)	
	Statistic	p-value
Unadjusted t	-5.621	
Adjusted t*	-3.5026	0.0002

The alternate hypothesis says that the debt-to-equity ratio is steady. The null hypothesis is rejected since the study's significance value ($\alpha=0.05$) is below the crucial threshold.

Table 4.6 shows the results of a unit root test on firm size.

Table 4.6: Unit Root Test for Firm Size

Levin-Lin-Chu unit-root test for FirmSize		
Ho: Panels contain unit roots	Number of panels =	4
Ha: Panels are stationary	Number of periods =	10
AR parameter: Common	Asymptotics: N/T \rightarrow 0	
Panel means: Included		
Time trend: Not included		
ADF regressions: 1 lag		
LR variance: Bartlett kernel, 6.00 lags	average (chosen by LLC)	
	Statistic	p-value
Unadjusted t	-6.7855	
Adjusted t*	-6.1146	0.0000

In the null hypothesis, firm size is steady, but in the alternative, it is not. The study's significance value is less than ($\alpha=0.05$).

Table 4.7 shows the results of a unit root test on firm age.

Table 4.7: Unit Root Test for Firm Age

Levin-Lin-Chu unit-root test for LnFirmAge		
Ho: Panels contain unit roots	Number of panels =	4
Ha: Panels are stationary	Number of periods =	10
AR parameter: Common	Asymptotics: N/T \rightarrow 0	
Panel means: Included		
Time trend: Not included		
ADF regressions: 1 lag		
LR variance: Bartlett kernel, 6.00 lags	average (chosen by LLC)	
	Statistic	p-value
Unadjusted t	-14.1452	
Adjusted t*	-15.1753	0.0000

Firm age has a unit root according to the null hypothesis yet is stable. The significance value of the research is less than ($\alpha=0.05$).

4.3.6 Test for Random and Fixed Effects

The Hausman test was employed to assess the factors' temporal effect. Table 4.8 provides the Hausman test findings.

Table 4.8: Hausman Test of Specification

	---- Coefficients ----		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fe	(B) re		
DebttoEqui~o	-0.00067	-0.00068	7.81E-07	0.000148
FirmSize	-0.0145	-0.01851	0.004015	0.008143
LnFirmAge	0.099668	0.016146	0.083522	0.016818

```

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

```

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Test: Ho: difference in coefficients not systematic

```

```

chi2(3) = (b-B)'[(V_b-V_B)^(-1)](b-B)
         = 28.25
Prob>chi2 = 0.0000
(V_b-V_B is not positive definite)

```

Assumed randomness of the variables, although they are fixed in this test. The null hypothesis is rejected if the significance value is less than or equal to alpha ($\alpha=0.05$). If the Hausman chi-square statistics are negative, the p value = 1. The variables have fixed effects (Prob>chi2=0.000) and a panel model with fixed effects will be used. The significance value ($\alpha=0.05$) does not reject the null hypothesis.

4.4 Inferential Statistics

The researcher utilized inferential statistics to identify the direction and degree of the relationship between the independent variables. Inferential statistics were correlation and multiple linear regression.

4.4.1 Correlation Analysis

Correlation analysis connects two variables. On the other hand, the association is quite positive. The study's independent and control variables show a positive correlation. The research employed a two tail test with 95% confidence .

Table 4.9: Correlation Analysis

	ROA	DebttoEqui~o	FirmSize	LnFirm~e
ROA	1.0000			
DebttoEqui~o	-0.3358*	1.0000		
	0.0341			
FirmSize	-0.5776*	0.4961*	1.0000	
	0.0001	0.0011		
LnFirmAge	-0.2301	0.7437*	0.6678*	1.0000
	0.1533	0.0000	0.0000	

Table 4.9 indicates a substantial relationship between debt-to-equity ratio and firm size at a 5% significance level. Their significance levels are below the study's critical threshold ($\alpha=0.05$). Debt-to-equity ratio and business size are negatively related. The study's results show that firm age has no significant link with ROA at the 5% level. A significant value is greater than the study's critical value ($\alpha=0.05$).

4.3.2 Multiple Linear Regression

Financial performance was examined using fixed effect panel multiple regression at a 5% significance level. Capital structure, age, and size were all examined. The researcher compared the ANOVA model's significance value to the study's results. The significance values obtained for the model coefficients were also compared to the significance value of 0.05. Table 4.11 exhibits the findings.

Prior to carrying out the multiple linear regression analysis, the variables had to be modified as the normality condition was not met. Standardization was utilized to address the non-normality of the variables in this research since all except ROA did not fulfill the normality criteria.

Table 4.10: Fixed Effects Panel Multiple Linear Regression

```

Fixed-effects (within) regression      Number of obs      =      40
Group variable: A                    Number of groups   =      4

R-sq:  within = 0.5551                Obs per group:  min =      10
      between = 0.1977                avg =      10.0
      overall = 0.0130                max =      10

                                         F(3,33)           =      13.73
corr(u_i, Xb) = -0.9620                Prob > F          =      0.0000
  
```

ROA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
zDebttoEqu~o	-.0089893	.0049569	-1.81	0.079	-.0190743 .0010956
zFirmSize	-.0146028	.0091629	-1.59	0.121	-.0332448 .0040392
zLnFirmAge	.0835947	.0150717	5.55	0.000	.052931 .1142583
_cons	.0348353	.0022936	15.19	0.000	.0301689 .0395016
sigma_u	.08423565				
sigma_e	.01450595				
rho	.97119894	(fraction of variance due to u_i)			

F test that all u_i=0: F(3, 33) = 9.58 Prob > F = 0.0001

ROA's R^2 statistic shows how changes in independent factors affect ROA's dependent variable. According to Table 4.10, the model's debt-to-equity ratio, firm size, and age account for 1.3 percent of ROA variance. According to the model, other variables account for 98.7 % of the ROA variations.

Debit to equity ratio, business size, and age model closely predict ROA (Table 4.10). This is because the model's significant value ($\text{Prob} > F = 0.0001$) is below the research critical level ($\alpha = 0.05$). Table 4.10 shows that only firm age has a significant connection with ROA. The two variables are positively related. Its significance level exceeds the research critical threshold ($\alpha = 0.05$). However, the analysis found no correlation between debt to equity and business size and ROA. Their significance values are above the research critical threshold ($\alpha = 0.05$).

Consequently, the following model was developed for the study;

$$Y = 0.0348353 + 0.0835947X_1$$

Where;

$Y = \text{ROA}$

$X_1 = \text{Firm Age}$

The y intercept obtained in the model of 0.0348353 implies that when firm age is equal to zero, ROA would be equal to 3.48353%. The beta coefficient of firm age had a value of 0.0835947, this indicates that when firm age increases by 100%, ROA increases by 8.35947%.

4.4 Interpretation and Discussion of Findings

This research looked at how the capital structure of Nairobi Securities Exchange energy and petroleum enterprises affected their financial performance. The study also aimed to examine the influence of the Nairobi Securities Exchange's energy and petroleum businesses' size and age on their financial performance.

Business size and ROA connected by 5% with debt-to-equity ratio. ROA is affected by a company's size and debt-to-equity ratio. The analysis found no link between firm age and ROA at the 5% significance level. Leverage-to-equity ratio, business size, and firm age model predicted ROA to the lowest degree, with a 1.3 percent correlation. The debt-to-equity ratio, business size, and age all impacted ROA. Only a company's age was associated to ROA. The two variables are highly correlated. Debt-to-equity ratio and business size also had no link with ROA. Modigliani and Miller (1958), a perfect capital market would have no need for capital structure; firms incur no transactional and tax costs, firms have 100% dividend payout, firms are confronted by a similar risk environment, corporate financial performance is not influenced by capital structure and that similar borrowing and lending interest rates apply for both the investors and corporates. Thus, their financial success is determined by the risk-reward potential compounded. According to this study, there is no correlation between capital structure and financial results.

A trade-off was postulated by Modigliani and Miller in the 1950s (1963). When debt and equity are evenly distributed, the best financial structure is achieved. Financial performance is unaffected by the structure of a company's capital. With regard to Donaldson's pecking order

theory, Myers and Majluf (1984) introduced information asymmetries (1961). According to the theorists, the presence of information asymmetries between the providers of capital and firms draw a line between different sources of financing. For example, internal sources of money have more knowledge than external sources like stock and debt, thus outsiders expect a better return on investment. Therefore, it is costlier for the firm to acquire external capital compared to leveraging internal capital and hence eroding the firm's returns. Contrary to traditional thinking, the study findings reveal that capital structure has no effect on financial success.

Incorrect finance choices may lead to company collapse. The ultimate purpose of all financial decisions is to maximize wealth, and their efficacy is judged by their impact on business performance (Mwangi, 2014). Abbadi (2012) observed that efficient companies have a higher potential to earn optimum returns from a particular capital structure. The research revealing no substantial association between capital structure and financial performance contradicts these claims.

Managers may choose a capital structure to protect their interests rather than the company's profits, particularly in organizations where shareholders and managers meet behind closed doors to make corporate decisions (Psillaki & Dimitris, 2018). Studies suggest that capital structure has little influence on financial success.

Leverage and ROE are connected, Mwangi (2010) found in his capital structure and financial performance research. According to Ghosh et al. (2010) and James and Hadlock (2012). Strange that capital structure has no significant link to financial success. French and Fama (2018)

established a link between capital structure and performance (2010). Previous research has shown that capital structure adversely impacts financial performance.

Brealey et al (2016) investigated capital structure and performance in Jordan. The research looked at 45 Amman Stock Exchange companies. Overall, financial structure is a poor predictor of corporate performance. Comparable to the previous study's findings, capital structure has no meaningful association with financial success.

A study by Chenesai (2019) examined the impact of size, tangibility and profitability on capital structure. He confirmed that leverage is linked to loss. The current study's conclusion that capital structure adversely impacts financial performance is consistent with earlier results.

Shenzhen and Shanghai ICT enterprises' financial structure and performance were studied by Chenesai (2018). Capital structure restricted profit. According to this research, capital structure adversely impacts financial performance.

Richard et al. (2019) found that capital structure has a detrimental impact on publicly listed commercial banks' financial performance. Previous study has shown that capital structure negatively impacts financial performance.

Onaolapo and Kajola (2017) studied the impact of capital structure on company performance by analyzing data from more than 1200 Swedish, German, and Chinese companies. After the 2008 financial crisis, China's capital structure and performance deteriorated, whilst two European

nations saw their economies grow as a result. According to this research, capital structure has no significant impact on financial performance.

Company performance is not affected by the structure of a company's capital, according to Rajan et al. Financial performance was determined to be unrelated to the structure of the capital. A pool of 36 Pakistani engineering businesses was analyzed in 2015 using an OLS pool. ROA and gross profit margin (GPM) are not negatively correlated with one other. Financial performance is unrelated to the structure of a company's capital, according to a recent research.

Abdul (2012) studied pakistani enterprises' capital structure. Performance and debt are intertwined. It's not a secret that a company's capital structure has an impact on its financial results (Javed and Ahtar, 2012). The research demonstrated a beneficial influence of total debt on organizational performance. Debt and performance were shown to be negatively related. Contradicting previous research, capital structure has no significant link to financial success.

Safarova (2010) studied the elements affecting New Zealand listed enterprises' performance. The research indicated that overall debt affects company performance the most. The research found that debt repercussions increased with firm growth. It is irrational to claim that the structure of a company's capital does not affect its financial results. a conclusion that business size has no substantial impact on financial performance is inconsistent.

Javed and Mizra (2013) studied the PSE performance elements. Debt has been found to impact large company performance. Large corporations have strong risk management and ownership

systems. Illogical to say that capital structure has no impact on financial performance. A conclusion that firm size has no significant relationship with financial performance is contradictory.

Capital structure and company performance in Romanian businesses were analyzed by Sorana (2015). Debt may have a significant impact on a company's financial results. Incongruous is the claim that capital structure does not have a significant impact on financial performance. Salim and Yadar (2012) discovered that debt has a negative impact on the financial performance of Malaysian publicly traded firms when studying the impact of structure on performance. Previous research has shown that capital structure adversely impacts financial performance.

Tobin's Q, EPS, and total debt/equity ratio were examined by Salteh (2012). A total of 28 Iranian firms are listed on the Tehran Stock Exchange (TSE). It's not only Tobin's Q and ROE that relate corporate success to capital structure. Capital structure and financial performance were shown to have no correlation in the study. Previous research on capital structure suggests that this is incorrect. Both the EBIDTA and ROA are included in this calculation. There was no correlation between capital structure and financial performance, which is consistent with previous studies.

Total leverage and long-term debt were examined by Mahmoodi and Saeedi (2011) for their effect on the Tehran stock market listing's success. Performance is unrelated to these two variables. Capital structure seems to have no effect on financial performance. To examine the performance of 257 South African publicly traded companies, Fosu (2013) utilized panel data to conduct an analysis. Research shows that total and long-term debt have a positive impact on a

company's performance. There was no correlation between capital structure and financial success in a previous study, which contradicts the conclusions of the current study.

An investigation by Adenkula & Sunday (2018) looked at the impact of debt on productivity. Profitability measures such as ROA and ROE take a hit when a company's debt-to-equity ratio is higher. Financial performance is adversely affected by capital structure, as shown by prior research.

Ebaid (2018) identified a correlation between the debt percentage of Egyptian businesses and their overall performance. Capital structure is not a key factor in financial performance, according to this research. Kaumbuthu (2011) discovered a correlation between ROE and debt ratio. Between 2004 and 2008, the NSE listed industrial and affiliated enterprises. The present study's findings that capital structure negatively affects financial performance are in line with previous findings.

CHAPTER FIVE: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

A summary of results and suggestions for policymakers and practitioners are provided in this portion of the report. There are also mentions of the study's limitations and recommendations for further research.

5.2 Summary

This research examined the capital structure and financial performance of NSE-listed oil and energy firms. Additionally, the size and age of NSE-listed firms were evaluated in the study. The results were interpreted in accordance with the specified goals.

These methods were used to achieve the study's objectives. Research found a correlation between debt-to-equity ratio, firm size, and ROA. There is a negative correlation between the Debt-to-Equity Ratio and Firm Size. Firm age has no bearing on ROA. It has a correlation coefficient of 1.3 percent. Company size, firm age model, and the ratio of debt to equity all have a significant impact on financial success. The research concluded that only firm age is related to ROA. The two variables are related positively. Finally, the study found no association between ROA and the company's debt-to-equity ratio or size.

5.3 Conclusion

This completes the investigation. Research on NSE energy and petroleum companies' financial performance has this as its key objective. The study found a statistically significant link between

financial performance and capital structure. Researchers will also look at the impact of a company's size and age on its financial performance on the NSE. There is no substantial link or relationship between board independence, audit and risk committee, board or business size and financial reporting quality. The research revealed that business size had a negative statistically significant link with financial success. The research also showed that company age has an insignificant but statistically significant link with financial success.

5.4 Recommendations

Future research on capital structure and performance is required. Financial performance experts will apply the study's findings in the future. The research will improve finance sources and business value. Lessons for future academics and researchers on capital structure and financial performance.

Government officials and policymakers in the financial sector, particularly the regulator, the Capital Markets Authority (CMA), and the Treasury, are urged to avoid focusing on capital structure in their efforts to increase firm value and to deepen the capital markets, in order to achieve greater financial stability and efficiency. A company's profitability and, hence, market valuation should be given more consideration. They may now advise governments not to concentrate entirely on business size when seeking to raise firm value and credibility of capital markets via financial deepening, since it is statistically unimportant. That a company's age has a statistically significant impact on its financial performance may assist boost capital market trust. They should thus prioritize increasing the size of firms in their efforts to raise firm value. Thus, firms that are listed should have been substantially been in operation for some time.

The research project findings will serve as a road-map for key government bodies and authorities as they develop policies and procedures to strengthen the financial sector. The current study findings will provide empirical findings to the government and other relevant agency to help guide the formulation and implementation of relevant policies and regulation.

In light of the findings, financial analysts should not utilize capital structure or company size to anticipate future returns or value of listed companies. They must pay more attention to other aspects that affect a company's profitability and hence value. For financial analysts to anticipate future returns and value of listed companies, the research reveals that a company's age has a statistically significant impact on financial performance. Henceforth, this study will offer them immeasurable insights, which will help them when advising their clients.

Consultants and listed company practitioners are urged not to utilize capital structure and size as a main strategy of boosting firm profitability and value, according to this study. They need to pay greater attention to other factors that contribute to a company's profitability and hence its worth.

5.5 Recommendations for Further Study

Regulators, notably the Capital Markets Authority (CMA), as well as the National Treasury, financial analysts, management of listed companies, and consultants should analyze the influence of capital structure on financial performance. Research on capital markets has been the focus of this study, but other markets and sectors of the economy may perform comparable investigations to see whether the findings of this study were limited. The present research has been performed

solely in Kenya, additional investigations may be carried out in Kenya, in African or global settings to determine if current results of the studies are conveyed.

Control factors in this research were limited to business size and firm age. In order to better understand the link between capital structure and financial performance, more research may be necessary. Primary data may be used to supplement this study, which depends only on secondary sources. As a consequence, the current findings might either be seen as positive or negative. The statistical analytical techniques of the present research were multiple linear regressions and correlation analyses. Statistical tools such as descriptive statistics, cluster analyses, discriminant analysis, granger causality, and components analysis may be applied in future research.

5.6 Limitations of the Study

An inductive research technique was used in this study since it was directed by relevant literature and theories to further examine the theoretical findings and empirical research findings. Employing theories and previous empirical literature assists in laying the groundwork for comprehending the research issue being investigated. The influence of government bond rates on equity market performance has not been studied before. Deliberately excluding the present economic condition from the analysis was due to time and expense restrictions. In addition, if similar studies were conducted in other countries, there would be even more ambiguity.

As a result, there were significant difficulties in obtaining data from secondary sources such as data on collateral, which was unavailable and required considerable effort and expense. The

original data was not used, and extra computations and changes of the data were necessary. The researcher was delayed because to data processing and editing before compilation.

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APPENDICES

Appendix 1: Companies Listed at the Nairobi Securities Exchange

Agricultural	
Ticker	Company Name
EGAD	Eaagads Limited
KUKZ	Kakuzi Limited
KAPC	Kapchorua Tea Company Limited
LIMT	Limuru Tea Company Limited
SASN	Sasini Tea and Coffee
WTK	Williamson Tea Kenya Limited
Automobiles and Accessories	
Ticker	Company Name
G&G	Car & General Kenya
Banking	
Ticker	Company Name
BBK	Barclays Bank of Kenya
CFC	CfC Stanbic Holdings
DTK	Diamond Trust Bank Group
EQTY	Equity Group Holdings Limited
HFCK	Housing Finance Company of Kenya
I&M	I&M Holdings Limited
KCB	Kenya Commercial Bank Group
NBK	National Bank of Kenya
NIC	National Industrial Credit Bank
SCBK	Standard Chartered of Kenya
COOP	Cooperative Bank of Kenya
Commercial and Services	
Ticker	Company Name
XPRS	Express Kenya Limited
KQ	Kenya Airways
LKL	Longhorn Kenya Limited
EVRD	Eveready East Africa
SCAN	Scangroup
NMG	Nation Media Group
SGL	Standard Group Limited
FIRE	Sameer Africa Limited
TPSE	TPS Serena
UCHM	Uchumi Supermarkets

Construction and Allied	
Ticker	Company Name
ARM	ARM Cement Limited
BAMB	Bamburi Cement Limited
BERG	Crown-Berger (Kenya)
CABL	East African Cables Limited
PORT	East Africa Portland Cement Company
Energy and Petroleum	
Ticker	Company Name
KEGN	Kengen
KENO	KenolKobil
KPLC	Kenya Power and Lighting Company
TOTL	Total Kenya Limited
UMME	Umeme
Insurance Segment	
Ticker	Company Name
BRIT	British-American Investments Company
CIC	CIC Insurance Group
CFCI	Liberty Kenya Holdings Limited
JUB	Jubilee Holdings Limited
KNRE	Kenya Reinsurance Corporation
PAFR	Sanlam Kenya Plc
Investments	
Ticker	Company Name
ICDC	Centum Investment Company
OCH	Olympia Capital Holdings
HAFR	Home Afrika Ltd
TCL	TransCentury Investments
Investment Services	
Ticker	Company Name
NSE	Nairobi Securities Exchange

Manufacturing and Allied	
Ticker	Company Name
BOC	BOC Kenya Limited
BAT	British American Tobacco Limited
CARB	Carbacid Investments Limited
EABL	East African Breweries
EVRD	Eveready East Africa
ORCH	Kenya Orchards Limited
MSC	Mumias Sugar Company Limited
UNGA	Unga Group
Telecommunication and Technology	
Ticker	Company Name
SCOM	Safaricom

Source: Nairobi Securities Exchange Website (2020)

Appendix II: Data Collection Form

Name of Firm					
	Year				
Data	2016	2017	2018	2019	2020
Net Income					
Total Assets					
Return on Assets					
Total Shareholders' Equity					
Debt to Equity Ratio					
Firm Size (Ln Total Assets)					
Firm Age					
Ln Firm Age					

Appendix III: Research Data

Company	Year	Net Income "000"	Total Shareholders Equity "000"	Long Term Debt "000"	Retained Earnings "000"	Share Capital "000"	Outstanding Shares "000"	Per Value per Share	Total Non Current Assets "000"	Total Assets "000"	ROA	Debt to Equity Ratio	Firm Size	Firm Age	Ln Firm Age
Total Kenya Ltd	2020	3,296,532	26,860,297	1,839,746	14,918,006	9,974,771	629,542	42.67	13,651,161	42,987,172	0.076686	0.18444	17.57641	16	2.772589
	2019	2,534,532	24,382,170	2,125,506	12,439,879	9,974,771	629,542	38.73	13,735,484	37,564,704	0.067471	0.213088	17.44158	15	2.70805
	2018	2,312,582	22,666,043	1,188,711	10,723,752	9,974,771	629,542	36.00	11,973,269	39,258,921	0.058906	0.119172	17.48569	14	2.639057
	2017	2,738,216	21,417,219	1,339,206	9,474,928	9,974,771	629,542	34.02	11,533,589	38,012,115	0.072035	0.134259	17.45342	13	2.564949
	2016	2,234,292	19,349,290	1,426,434	7,406,999	9,974,771	629,542	30.74	10,805,922	36,185,372	0.061746	0.143004	17.40417	12	2.484907
	2015	1,615,003	17,599,746	1,244,627	5,657,455	9,974,771	629,542	27.96	10,766,844	34,225,035	0.047188	0.124778	17.34847	11	2.397895
	2014	1,424,088	16,425,423	1,192,167	4,483,132	9,974,771	629,542	26.09	10,301,663	32,541,800	0.043762	0.119518	17.29804	10	2.302585
	2013	1,312,277	15,379,060	1,117,028	3,436,769	9,974,771	629,542	24.43	9,946,901	39,984,165	0.03282	0.111985	17.50399	9	2.197225
	2012	-202,142	14,192,676	854,765	2,250,385	9,974,771	629,542	22.54	9,632,145	32,980,604	0.00613	0.085693	17.31143	8	2.079442
	20	-									-	0.63	17.3	7	1.94

	11	71,436	9,194,818	3,020,584	2,452,527	4,774,771	298,543	30.80	9,859,215	35,198,166	0.00203	2613	765		591
Kengen	2020	18,377,093	211,318,388	184,552,489	105,443,687	16,487,710	6,594,522	32.04	378,888,857	412,926,930	0.044504	11.19334	19.83878	66	4.189655
	2019	7,884,335	194,964,536	180,860,247	86,629,244	16,487,710	6,594,522	29.56	367,793,076	401,422,249	0.019641	10.9694	19.81052	65	4.174387
	2018	7,890,633	190,103,625	168,369,902	79,658,790	16,487,710	6,594,522	28.83	347,940,938	379,353,005	0.0208	10.21184	19.75398	64	4.158883
	2017	9,006,216	182,835,913	173,800,472	69,608,767	16,487,710	6,594,522	27.73	347,090,213	376,729,582	0.023906	10.54121	19.74704	63	4.143135
	2016	6,743,492	172,742,682	176,316,055	58,536,054	15,609,684	6,243,873	27.67	345,332,376	367,248,796	0.018362	11.2953	19.72155	62	4.127134
	2015	11,517,327	141,594,091	178,445,931	51,145,614	5,495,904	2,198,361	64.41	321,151,022	342,519,995	0.033625	32.4689	19.65184	61	4.110874
	2014	2,826,323	76,709,673	148,299,622	41,071,239	5,495,904	2,198,361	34.89	222,574,881	250,205,524	0.011296	26.98366	19.33779	60	4.094345
	2013	5,224,704	73,958,516	97,042,137	37,728,726	5,495,904	2,198,361	33.64	163,545,472	188,673,282	0.027692	17.65717	19.05553	59	4.077537
	2012	2,822,600	70,069,551	78,074,365	33,209,643	5,495,904	2,198,361	31.87	140,856,807	163,144,873	0.017301	14.20592	18.91015	58	4.060443
	2011	2,080,121	69,418,587	80,318,110	30,513,173	5,495,904	2,198,361	31.58	141,454,256	160,993,290	0.012921	14.61418	18.89687	57	4.043051
Kenya Power & Lighting	2020	-939,482	54,896,799	152,894,799	27,996,913	4,878,667	1,953,617	28.10	282,640,420	325,267,359	0.00289	31.33946	19.60016	98	4.584967
	20										0.00	32.0	19.6	97	4.57

	19	261,553	56,230,862	156,583,263	29,330,976	4,878,667	1,953,617	28.78	283,783,986	328,494,615	0796	955	1003		4711
	2018	1,917,992	64,207,389	166,190,004	37,307,503	4,878,667	1,953,617	32.87	282,035,008	336,655,189	0.005697	34.06463	19.63457	96	4.564348
	2017	5,280,425	63,333,617	189,074,030	36,433,731	4,878,667	1,953,617	32.42	269,942,846	331,236,232	0.015942	38.75526	19.61834	95	4.553877
	2016	7,196,563	59,379,481	180,091,175	32,479,595	4,878,667	1,953,617	30.39	242,264,556	289,582,797	0.024851	36.91401	19.48395	94	4.543295
	2015	7,431,957	61,449,028	151,832,608	6,705,206	4,878,667	1,953,617	31.45	209,430,675	275,493,150	0.026977	31.12174	19.43407	93	4.532599
	2014	6,994,487	54,743,822	98,654,250	7,594,015	4,878,667	1,953,617	28.02	170,407,745	220,926,514	0.03166	20.22156	19.21334	92	4.521789
	2013	4,352,165	47,405,675	74,017,924	4,712,475	4,878,667	1,953,617	24.27	140,579,769	177,157,755	0.024567	15.17175	18.99255	91	4.51086
	2012	4,617,116	43,511,553	46,874,965	3,925,962	4,878,667	1,953,617	22.27	105,972,599	134,131,983	0.034422	9.60815	18.71433	90	4.49981
	2011	4,219,566	39,606,376	45,961,716	3,216,803	4,336,593	1,736,787	22.80	86,020,839	121,171,515	0.034823	10.59858	18.61272	89	4.488636
Umeme Ltd	2020	1,290,577	24,061,628	26,545,421	15,636,945	840,207	1,623,878	14.82	63,922,328	79,836,555	0.016165	31.59392	18.19549	65	4.174387
	2019	3,847,517	23,046,615	26,332,178	15,097,590	840,207	1,623,878	14.19	55,069,940	70,279,401	0.054746	31.34012	18.06799	64	4.158883
	2018	3,642,729	19,807,846	27,039,355	12,790,569	840,207	1,623,878	12.20	58,311,067	67,570,563	0.05391	32.18179	18.02868	63	4.143135
	20	1,008,0	17,541,38	28,876,	10,498	840,20			54,485,	66,722,	0.01	34.3	18.0	62	4.12

	17	06	5	551	,039	7	1,623,878	10.80	617	320	5107	6839	1605		7134
	2016	2,827,841	16,784,754	29,926,205	8,919,151	840,207	1,623,878	10.34	49,622,716	62,139,500	0.045508	35.61767	17.94489	61	4.110874
	2015	3,208,994	15,271,648	26,087,621	8,255,375	840,207	1,623,878	9.40	41,183,808	53,804,126	0.059642	31.04905	17.80086	60	4.094345
	2014	2,305,592	10,260,476	14,023,313	7,053,914	840,207	1,623,878	6.32	23,760,254	39,638,493	0.058165	16.69031	17.49531	59	4.077537
	2013	2,867,852	9,795,161	7,661,179	6,434,646	840,207	1,623,878	6.03	16,608,944	30,469,012	0.094124	9.118208	17.23222	58	4.060443
	2012	1,827,105	7,660,564	6,786,586	4,523,996	840,207	1,623,878	4.72	13,840,663	24,184,361	0.075549	8.077282	17.00122	57	4.043051
	2011	773,023	3,600,439	8,588,314	2,832,087	692,501	1,338,406	2.69	11,652,553	18,788,825	0.041143	12.40187	16.74877	56	4.025352

