EFFECTS OF CASHFLOW ON STOCK MARKET PRICES OF COMPANIES LISTED IN THE NAIROBI SECURITIES EXCHANGE

By

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DECLARATION

I, the undersigned, declare that this research project is my original work and has not been submitted to any other college, institution or university for academic credit.

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

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ABBREVIATIONS

AIMS	Alternative Investment Manrket Segment
BEI	Indonesia Stock Exchange
CBK	Central Bank of Kenya
CDSC	Central Depository and Securities Corporation
CMA	Capital Markets Authority
DPR	Dividend Payout Ratio
DPS	Dividend per Share
EPS	Earnings per Share
GDP	Gross Domestic Product
GEMS	Growth and Enterprise Market Segment
GPM	Gross Profit Margin
IPO	Initial Public Offer
KNBS	Kenya National Bureau of Statistcis
MIMS	Main Investment Market Segment
NPM	Net Profit Margin
NSE	Nairobi Securities Exchange
PER	Price Earnings Ratio
ROA	Return on Assets
ROCE	Return on Capotal Employed
ROE	Return on Equity
TATO	Total Asset Turn Over
VIF	Variance Inflation Factor

ABSTRACT

Cash is usually at the beginning and end of the company operating cycle. Cash reserves are important for both passive hedging purposes and proactive investment purposes. It is therefore an aspect of company financials that investors should include in the analysis while making investment decisions. The objective of this study was to find out the effect that cashflow has on stock market prices of companies listed in the Nairobi Securities Exchange. In order to achieve the study's goal the research was designed to allow for regression and correlation of share prices to four predictor variables. Secondary data covering the period from 2012 to 2021 was collected from NSE database and company financial reports that were accessed online. The population was all companies listed in the Nairobi Securities Exchange. From the population, 10 companies were selected randomly from clusters representing each sector. Stock price was the dependent variable while cashflow was the independent variable with profitability (returns), liquidity and debt as control variables. Standardized stock prices were used to eliminate any effect of stock splits and bonus issues over the years. Cashflow coverage ratio was used as a proxy for cashflow. Multiple regression was used to determine the nature of the relationship between the dependent, independent and control variables. Results indicate that cashflow had an inverse relationship with stock prices while the other three regressors has a positive relationship. A unit change in cashflows results in a change of 0.438 units in the opposite direction. This lends credence to the Free Cashflow Theory which postulates that shareholders would rather be paid dividends than management holding cash reserves. A positive relationship between share prices and current and debt ratios contradicts the Irrelevance Theory which argues that company value is independent of its capital structure. The study recommends further studies to establish the optimal levels of cash that a company should hold based on its size.

CHAPTER ONE   : INTRODUCTION

1.1 Background of the Study

A company's goal is to generate shareholders value. Even though other stakeholders are vital, the shareholder is the most crucial, and the primary goal is to create long-term value for shareholders (Bender & Ward, 2009). Generally, shareholders and investors in the stock market want dividend yield from a company's profitability as well as capital gains from a stock's rising value (Bayrakdaroglu, Mirgen, & Kuyu, 2017). Profitability is a measure of a company's capacity to make money, attracting more investors to purchase the stock and resulting in price increases of a company's stock price (capital gains). Cashflow on the other hand can be viewed as the amount of money that moves into and out of a firm at a particular moment or over period of time. The amount of free cashflow held by a company is a salient indicator of the financial health of the company.

Investors may use internal measures of a company such as cashflows to make investment decisions. One of the earliest theories relating internal business fundamentals with stock performance was put forward by Modigliani and Miller (1958) who theorized that the value of a company is independent of its capital structure. Arising from capital structure theory are the trade-off, pecking order and free cashflow theories that fuse the capital structure decision model with the concept of agency theory. From 1958 the effects of company performance, as measured using business fundamentals, on stock prices have been studied in different economies across the world. Studies range from the effects of profitability to the effects of capital structure on stock prices. Most empirical studies have presented evidence that the performance of a company has a significant and positive relationship with its stock price. With the increasing popularity of

fundamental analysis, additional measures of company performance have gained more prominence. Measures such as cash flow ratios, liquidity ratios and debt ratios will increasingly be useful in the effort by investors to gain a more wholesome view of companies.

The ability of a company to employ assets out of its principal method of operation to create income is measured by its financial results. This phrase can also indicate a company's overall financial wellbeing over a period of time. Financial performance is used by analysts and investors to evaluate similar companies in the same industry or to analyze industries or sectors as a whole. Profit maximization, according to Pandey (2005), is one of a firm's primary goals. As a result, sales volumes, profitability increase, capital costs, and capital structure decisions all have a significant impact on shareholder equity. Furthermore, dividends are a significant element for shareholders since payouts have a significant influence on their profit maximisation. A high cash dividend ratio has a favorable impact on the market price of the stock, resulting in a price gain (Azhagaiah & Priya, 2008). Financial analysis, on the other hand, entails determining a firm's equity value based on the study of publicly available financial reports as well as other evidence rather than the rates at which its shares move in the stock markets (Baumann, 1996). It entails analyzing historical and current financial accounts, as well as market and economic information, to assess a company's intrinsic worth and discover mispriced shares (Kothari, 2001).

While accounting information provide detailed statistics useful for analysis, research shows that the majority of the immediate stock price reaction to quarterly financial information (at least earnings) occurs on the day of the earnings announcement rather than when the full financial statements are released. This suggests that an investor is unlikely to profit from previously

provided summary data. Accounting information, on the other hand, provide extensive information that may be evaluated to give insights into a company's performance and future prospects that aren't even accessible through summarized data in earnings reports. There are various ways to assess financial success, but they should all be seen as a whole. Comparative analysis of financial statements, prevalent financial statement analysis, solvency ratio, cash flow forecast, and appraisal are just a few examples (Subramanyam & Wild, 2009).

This study will use ratios as an indicator of financial performance. A tool for interpreting a financial statement is ratio analysis. It's a method for comparing linked things in financial information to one another in a relevant way. Also it gives information on two crucial aspects of management, such as the return on investment and the financial stability of the organization (Nwoha, 2006).

1.1.1 Cashflow of Firms

It is impossible for a business to remain a going concern without cash. Long-term higher yielding investment and re-investment into a business are only possible when there is stable cashflow. A business can increase its cashflow by increasing prices at which it sell its products, reducing costs through outsourcing or bulk purchase of raw materials and reducing the amount of sales on credit. During bad times for a company, the costs and risks associated with external funding increases the tendency of managers to hold cash reserves. However there are also hidden agency costs associated with holding on to cash. During a business boom there is no need for high liquidity while companies only file for bankruptcy after exhausting cash reserves. Restrictive cash reserves policy boosts debt value and equity value. (Anderson & Carverhill, 2005)

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In financial statement analysis, five different types of ratios are employed. They are: (1) liquidity ratios, measuring the ability of the company to meet the arising cash needs; (2) operating ratios, measuring assets specific liquidity and how efficient assets are managed ; debt ratios, measuring the level to which debt financing of a company is relative to equity and how able it is to meet fixed costs as well as interests; (4) profitability ratios, measuring the general performance of a company and its effectiveness in asset, liability and debt ratio management (Fraser & Ormiston, 2004); and (5) stock price is used to calculate market value ratios, which indicate how investors feel about the company as well as its prospects for the future (Brigham & Houston, 2009).

In cashflow analysis focus is on activities such as inventory, credit terms, receivables and payables, that have a direct impact on the flow of funds. Cash flow analysis enables early identification and mitigation against cashflow risks and impediments. Free cashflow, the purest form of cashflow, is the product of taking away capital expenditures, working capital and dividend payments from cash generated by operations. Cashflows from operations, financing activities and investment activities are classifications of cashflows based on source. The substantial level to which cash flows from operations affect current and quick ratio but not cash conversion cycle is evident (Nour, 2012).

1.1.2 Stock Market Prices

Stocks or shares are ownership units in a business or financial instrument which if any profit is declared, it gives an equitable profit distribution in dividend form. Common shares and preference shares are the two primary types of shares. Sale and purchase of stocks frequently necessitates the use of a brokerage as an intermediary. Financial, monetary, and international trade policy, as well as macro-economic variables, financial information and other internal

elements impact stock prices in a stock market. Financial records are among the most important factors that investors consider when deciding whether or not to invest in the business (Anwar, 2016).

Shares are initially sold through a process called listing that involves an initial public offer (IPO) of a company's units of ownership. The price of a single share of a firm's sellable stock is called a share price. The share price at any one time reflects the equilibrium reached between buyers and suppliers. The price represents the industry's collective expertise and understanding (Sharma, 2011).

Share market values fluctuate rapidly (often several times per minute) due to market dynamics of demand and supply. When there are more individuals who want to purchase a stock at a particular time (demand) than there are people who want to trade it (supplier), its price rises. Over the long term however, stock prices may to an extent be determined by a company's financial performance in addition to market forces. The return on investment on a stock is determined by price changes. The stock value is among the most significant aspects that influence investors' investing decisions. It is primarily governed by the market dynamics of demand and supply for a certain security (Zakir & Khanna, 1982).

1.1.3 Cashflows and Stock Prices

The question of which between earnings or cashflow is a better measure of company perfomance was studied and both were found to be a good predictors of the future. The contrast is minimal in as far as the impact of cashflow and earnings on share prices is concern. It is only when firm size

is small that cashflow becomes a better measure of future performance than earnings (Al-Attar & Al-Khadash, 2005). On the other hand Liu (2006) concluded that fluctuations in traded share prices is better reflected by ratios that are based on earnings as opposed to ratios based on cashflows. Nour (2012) determined that there is no advantage in using cashflows from operations when compared to earnings or working capital in terms of their impact on liquidity.

While anecdotal evidence has it that colossal amounts of cash holdings exist within huge companies there is no established optimal level. There is however theoretical consensus that companies hold cash for proactive purposes and for passive hedging purposes. For proactive purposes cash is held to facilitate mergers, acquisitions and projects for larger returns in future. The passive motive of liquidity enables the firm to weather any happenings that may bring adverse repercussions.

Conventionally financial risks and limitations are the reason why investors are sensitive to cashflow. However there are other types of constraints that impact the sensitivity of investors to cashflows. One of the constraints is information or the lack thereof. Evidence has been adduced confirming higher investor cashflow sensitivity towards companies for which there is more information available. Companies that are analyzed more by financial analysts are more likely to exhibit stong linkages between cashflows and investment (Anderson & Carverhill, 2005).

1.1.4   Companies Listed at Nairobi Securities Exchange

Capital markets play a significant part in a country's economy since they serve both economic and financial functions at the same time. The capital market is considered to have an economic purpose since it facilitates the meeting of two groups of people: those with surplus cash

(investors) and those in need of funds (issuers). The capital market is considered to provide a financial function since it offers the ability and opportunity for fund owners to receive rewards based on the features of the chosen investment (Andrieş, 2009).

The Capital Markets Authority (CMA) in Kenya is an autonomous state body under the Ministry of Finance, formed by an Act of Parliament, Cap 485A. The CMA is a regulatory agency tasked with overseeing, certifying, and supervising the actions of brokers, such as stock exchanges, central depository and settlement systems, and all other body corporates regulated under the Capital Markets Act (CMA Annual Report, 2012).

The Nairobi Securities Exchange (NSE) was established in 1954 as a non-profit stockbrokers' organization recognized under the Societies Act. The NSE's primary responsibilities encompass company listing, trading settlement, business coordination and control, market monitoring, the publication of a review process, tracking of companies listed' operations, and the declaration of price-sensitive or other details on listed companies via digital portals (Ngugi, 2003). CMA oversees and maintains regulatory requirements at the NSE. The Central Depository and Settlement Corporation (CDSC), that offers clearance, distribution, and settlement services for stocks exchange at the NSE, also is a member of the NSE. It regulates the activities of Central Depository Agents, who include stockbrokers and investment banks that are participants of the NSE, as well as Custodians.

The NSE had ten listed businesses before Kenya's independence in 1963. Around 20 additional firms were listed in the post-independence period, mainly in the 1970s. It was the most firms that

had been registered in a decade. Only 5 new firms were listed in the 1980s, a figure that more than quadrupled in the 1990s. There were five new publicly traded firms since 2000 and there are currently a total of 61 listed businesses. Forty-eight are listed on the MIMS (Main Investment Market Segment), 9 on the AIMS (Alternative Investment Market Segment), and 4 on the Growth Enterprise Market Segment (GEMS).

Approximately two-thirds of currently listed firms are local, with Kenyan residents making the largest percentage of shareholder's or are firms incorporated in Kenya under the Companies Act, whilst the remaining one-third are foreign with a greater percentage of their shareholders being firms incorporated and operating in a foreign land or shareholders are citizens living in a foreign land (Ngugi, 2005).

Agricultural, Automobiles and Accessories, Banking, Commercial and Services, Construction and Allied, Energy and Petroleum, Insurance, Investment, Investment Services, Manufacturing and Allied, Telecommunication and Technology, Real Estate Investment Trust, and Exchange Traded Funds are among the entity types listed on the Nairobi Securities Exchange (Ngugi, 2005).

The NSE's equity turnover in 2017 was KSh 171.6 billion, up from KSh 147.2 billion in 2016, thanks to increased investor involvement, mostly from institutional investors. In 2017, Market Capitalization increased by 30.55 percent to KSh 2,521.8 billion, indicating a rise in shareholders' wealth. International investors have controlled trade at the NSE, with an actual net

foreign investor level of participation of 64.96 percent of total equities turnover in 2017, down from 67.82 percent in 2016 (Kenya Financial Regulators Forum, 2017).

1.2 Research Problem

Studies linking company performance to future stock returns are numerous. However, most of the studies to date have concentrated on the relationship between profitability and stock market prices. Moreover most of those studies are based on data from the United States, United Kingdom, Asia or South America. Studies focusing on African, and especially Kenyan, corporations have been few and far between.

The aim of this study was to analyze the relationship between company performance (measured using financial ratios) and stock prices and also to examine whether these ratios can indeed influence investment decisions. Most other studies have examined effects of only profitability ratios on stock prices. In addition, existing studies have used macroeconomic variables such as inflation, interest rates, foreign direct investment, economic growth and stock market liquidity as control variables. This study seeks to find out the effects of company profitability, liquidity, debt levels and cash flow levels on the stock prices of companies listed in the NSE. The study is unique in the sense that it seeks to establish the effects of a broad array internal business fundamentals on stock prices, an area that other studies have hitherto shied away from. The study will analyze fundamental factors affecting stock prices with selected internal business ratios also being among the control variables.

The link between growth of revenue and market returns has long been a source of debate in business and academia. In Kenya, corporations listed on the Nairobi Securities Exchange have

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repeatedly recorded disproportionately large accounting profits in recent years, with no discernible or proportional effect on stock prices. Safaricom Ltd, for example, had the highest corporate earnings in East and Central Africa throughout a decade when its stock market remained below its IPO price.

Even though revenue has continuously had a significant impact on stock earnings, study results from developed markets showed or contended that share prices could be influenced by the size of the firm's overheads in the form of official expenditures, resulting in either revenue growth or decline and thus positive or negative returns (Azhagaiah & Priya, 2008). This raises the question of the extent to which revenue growth affects stock prices and whether other fundamental business factors have a part to play.

It is evident that financial statement information is helpful and relevant if it can be utilized to anticipate future earnings fluctuations and profits. There is possibility that this data can be exploited in an attempt to generate anomalous returns. Furthermore, profit forecasting would entail return forecasting, and therefore raise doubts over the supposition that markets are efficient (Seng & Hancock, 2012). This paradox inspired the researcher to examine the link between fundamentals of business and stock prices, focusing on companies listed on the NSE.

1.3 Research Objective

To examine the effect of cashflows on stock market prices for firms listed at the Nairobi Securities Exchange.

1.4 Value of the Study

The study intended to explain the effect of business fundamentals such as profitability, liquidity, debt and the impact of cash flow levels on the stock prices of companies listed on the NSE. The study will be useful to a range of financial sector stakeholders on a theoretical, policy, and practical level. In the practice of finance the study was intended to provide a wealth of knowledge to practitioners including Stock brokers, Investors, Investment advisors and management of listed companies. The study was intended to shed more light on the necessity of a more wholesome assessment, with a focus on business fundamentals of companies listed in the stock exchange. This, it was hoped, would improve the quality of their investment decisions.

The study was to enable regulators and policy makers to refine their policies especially when it comes to disclosure requirements of listed companies. Market participants would become more sensitized and knowledgeable on the role of financial statement information in investment decision making. This would mean increased confidence and participation in securities markets by the public. The study was intended to provide literature for further analysis into the area of factors affecting stock market pricing mechanisms. It challenged the already established theories relating to stock market pricing.

CHAPTER TWO   : LITERATURE REVIEW

2.1 Introduction

This chapter presents the theoretical foundation relevant to the conceptual framework. It identifies and analyses the main theories in use and their applicability to the study. It is a review of literature from previous theoretical and empirical studies that have explored the effect of financial performance on stock prices. It expounds on different measures of a company's financial performance including: profitability, liquidity, cash flow measures and levels of indebtedness. The literature was sourced from journals, previous empirical studies and text books by a variety of writers. The review of literature was used to identify gaps within the conceptual framework that could elicit further research.

2.2 Theoretical Review

This study was anchored on four theories related to internal workings of a company and stock market prices. They include Theory of Capital Structure, Trade-Off Theory, Pecking Order Theory and Free Cashflow Theory. Criticism of the Theory of Capital Structure is applied to illustrate the relevance of a Company's capital structure in determining the value of a company. The Trade-Off Theory explores the concept of the balance between cost of debt and the tax advantages of debt. The Pecking Order Theory is used to show the level of preference of various forms of funding available to a company. Free Cashflow Theory illustrates the conflict between management and shareholders in the allocation of funds within a company. Management prefers to hold free cashflows for reinvestment while shareholders prefer to be paid dividends.

2.2.1 Irrelevance Theorem

Modigliani and Miller (1958) offered a new perspective to issue of investment, that had previously been divided into two camps. One line of thought claimed that paying dividends increased a firm's value to its investors, while another said that paying dividends hindered a corporation from engaging in successful initiatives, preventing maximisation. They came up with the idea that a company's value is independent of its capital structure. In an abstract economy without transaction costs or taxation, a firm's capital structure is irrelevant, according to their published study. They claimed that if stock markets are perfect and in equilibrium, the value of a corporation defined as the sum of the market prices of its stock and debt is independent of the amount and composition of the debt. The mean capital cost is likewise independent of the firm's leverage under these ideal conditions. The rationale for this startling theory is that, under the stated assumptions, shareholders may build their investments in a manner in which they achieve their ideal return-risk profile without incurring any costs. Investors have little motivation to pay extra for shares in businesses whenever the administrators strive to modify the capital base based on what they think the shareholders desire when they can do these things themselves (Balling & Gnan, 2013).

Chew (1993) viewed Modigliani and Miller as pioneers of contemporary finance due to the Irrelevance Theorem's creative nature. Even though the presumptions that underpin Modigliani and Miller's original proposal – like the lack of taxes – cannot be completely substantiated in real life situations, they enable investigation of elements influencing the description of an ideal corporate capital structure (Amaros de Matos, 2001). In the 1960s and 1970s, the "Irrelevance Theorem" held great sway on discussion surrounding capital structure theory when researchers

started to emphasize the value of taxation, transaction fees, and the cost of debtor, all of the financial market characteristics that Modigliani and Miller had assumed away.

Nobel Prize winner Joseph E. Stiglitz has challenged the theorem. Modigliani and Miller, according to Stiglitz (1969), believed that risk of default was non-existent and that there were no knowledge asymmetry issues between investors and corporate management. The two assumptions are untenable, and removing them emphasizes the capital structure. It's much easier to examine a firm's funding decisions, as well as the interplay between shareholders, creditors, and company management, as well as the resulting corporate governance issues (Balling & Gnan, 2013).

2.2.2 Trade-Off Theory

Kraus and Litzenberger (1973) proposed balancing between dead-weight bankruptcy cost and the tax savings advantages of debts in their original version of ideas. According to the "trade-off hypothesis," businesses pursue debt levels that combine the tax benefits of more debt with the risks of probable financial hardship (Myers, 2001). On the changes in macroeconomic variables of capital structure, there is a considerable body of literature. The ideal and real amounts of debt of a corporation can't be identical at any given time, according to this research. Trade frictions like charges on transaction and flaws in the capital markets might stop real debts from being adjusted to the appropriate amount in real time. Fischer, Heinkel, and Zechner (1989) demonstrate that tiny recapitalization expenses may cause huge fluctuations in a firm's debt ratio over time, whereas Leland (1998) stresses the importance of debt agency costs in finding the optimum debts.

Myers (1984) underlined in her model that adjustment costs are not a primary concern in the framework of the classical trade-off theory, and they're only discussed in passing. Adjustment costs indeed exist, and they are incurred as a consequence of temporal adjustments toward ideal ratio. Random occurrences that depart from the optimum cannot be eliminated, but the cross-sectional distribution of existing debt ratios among a sample of enterprises with the same goal ratio can be seen. The observed substantial discrepancy between actual and ideal debt ratios might be explained by significant transaction cost.

One of the first to advocate this viewpoint were Taggart (1977) and Marsh (1982). Several authors, like Fisher et al. (1989) and Jalilvand and Harris (1984), joined this line of thinking by presenting theoretical reasons and then supporting them using empirical evidence. They believe that investment and finance choices are made simultaneously, and even in the long term, enterprises tend to reach their desired value. The occurrence of partial adjustment in the context of market defects is explained by this dependency. Indeed, inside an ideal market, this modification is unaffected by any variable and is completed instantly.

Jalilvand and Harris (1984) describe funding choices and rewards as a two-stage procedure including the establishment and adjustment of goal values. They also believe that the objectives are set, and their interest is factors that influence the modification of financial objectives throughout time, as well as the interrelations between financing decisions and when the modification happens. This describes the link between asset (investment) changes and liability changes (financing).

2.2.3 Pecking Order Theory

Myers and Majluf (1984) proposed the first model of capital structure decision points that took cognizance of the impact of information asymmetry on the debt-equity mix. The concept of asymmetric information provides the foundation upon which the pecking order theory is anchored. External stakeholders like creditors (debt holders) and investors often have less knowledge about a company's performance, prospects, risks, and future outlook than management. These stakeholders seek a larger return to compensate for their lack of information and mitigate the risk they are taking. Essentially, external sources of finances would typically carry a higher risk premium due to information asymmetry.

According to the hypothesis, corporations choose to fund new investment in the following order: internally produced capital (retained earnings), debt, and equity issue. Managers follow a hierarchy when selecting sources of finance due to knowledge asymmetry, according to the idea. Whenever internal working capital is insufficient to cover capital expenditures, corporations will borrow rather than issue additional shares. Companies prefer internal sources of funding versus external sources of finance in order to avoid being reliant on creditors or new shareholders, and because management have a better understanding of the company's financial health.

2.2.4 Free Cash flow Theory

Finally, according to Jensen's Free Cash Flow Theory of 1986, the chosen capital structure is determined by the settlement of disputes between management and shareholders. If a firm has excellent liquidity, the shareholders may want bigger dividend payments, while the management prefer to retain company finances and reinvest in internal growth. As a result, some capital

structure theories and agency theory have a close link (Balling & Gnan, 2013). Free cash flow theory tries to forecast the kind of merger and acquisitions that have higher likelihood of destroying value than to generate it; it shows how buyouts are both proof of and a solution to conflicts of interest between shareholders and management. Managers might use acquisitions to spend money rather than distribute it to shareholders. Managers of organizations with underused ability to borrow and substantial free cash flows, according to the hypothesis, are more prone to engage in mergers that have little profit or even those that destroy value. It anticipates that buyouts that boost value will only happen as a result of a breakdown in internal control mechanisms in enterprises with significant free cashflows and resource-wasting organizational strategies.

2.3 Determinants of Stock Prices

The price of a stock is to an extent influenced by the following fundamental business variables: Profitability, Debt, Liquidity and Operations. These variables are usually measured and expressed in the form of ratios.

2.3.1 Cashflow

When all assets in a balance sheet are compared cash is usually the most liquid. A company's operating cycle both starts and ends with cash. Apart from operations or core activities cash is also generated from financing activities (related to funding the business) and investing activities (related to purchase and sale of non cash items). Cashflow is the difference between cash that flows into the firm and cash that flows out of the firm (Subramanyam & Wild, 2009).

Cash flow ratios are indicators of the amount of cash generated by a company and the buffer it provides. These ratios provide a different perspective on the financial performance of a company. Despite generating little cash, accounting practices and non-cash-based transactions can make a company appear very profitable. If a company makes a large amount of sales on credit, it will look profitable. However, without actually receiving cash for the sales, a company's financial position would be in jeopardy since they have obligations that must be paid in cash. Cash flow ratios are a comparison between cash flows and other company metrics to determine the amount of cash generated from sales, cash available to cover obligations and free cash generated (Reider, 2003). There are many ratios used to evaluate the level of cashflow in a company. This study used the cashflow covereage ratio which is the relationship between cashlow from operating activities and total debt.

2.3.2 Profitability

Profits or Earnings indicate changes in company equity before owner considerations are taken into account. Profits are usually declared without consideration of whether cash has been received for goods sold or services rendered. However, profitability ratios still provide a glimpse into the efficiency of a company in utilizing its resources to generate profits and grow shareholder value. They provide a measure of management's effectiveness and efficiency. The long-term profitability of a company is vital for both the sustainability of the company as well as the benefit received by shareholders (Subramanyam & Wild, 2009). This study used return on capital employed as a measure of profitability.

2.3.3 Debt

Solvency has to do with how much debt a company is carrying in its balance sheet. It is a long term aspect of the balance sheet that provides a gauge on how a company would be able to repay its long term debts. A company's overall debt load is measured using debt ratios which give users a general idea of its financing structure. Debt ratios, which illustrate the level of borrowing a company and its shareholders face, are used to determine the overall level of financial risk. The risk of insolvency generally increases with an increase in the amount of debt held by a company. (Brealey, 1991). Ratios indicating levels of debt include: Debt Ratio, Debt-Equity Ratio, Capitalization Ratio, Interest Coverage Ratio and Cash Flow to Debt Ratio. The study used debt ratio.

2.3.4 Liquidity

Liquidity ratios measure a company's ability to pay off its most immediate debt obligations. The ratios compare a company's most liquid assets (those that can be easily converted to cash) with its short-term liabilities (Reider, 2003). Short term assets and short term liabilities are usually those expected to be received or paid within a financial year or the operating cycle of a company which ever is longer. Liquidity ratios include: Current Ratio, Quick Ratio, Cash Ratio and Cash Conversion Cycle. The study used current ratio.

2.4 Empirical Studies

Review of empirical literature has been structured according to the geographical scope of studies undertaken related to the objective of the research. The review begins with studies undertaken in developed financial markets like USA, Europe and Asia, takes us through studies in African markets before concluding with a look at studies within the Kenyan context.

2.4.1 International Evidence

Seng and Hancock (2012) investigated the mechanisms through which Market makers use comprehensive financial statement information to make judgments by looking at how present changes in the basic signals chosen, as well as contextual control elements, might offer information on future revenue fluctuations. These numbers came from Standard & Poor's Global Vantage system, which had a great deal of data about businesses all across the world. The basic signals for the long-term study were calculated using data from 1990 to 2000, while the short-term analysis used data from 1993 to 1995. In total, 33 nations are represented in the dataset. The basic indicators are strong predictors of both short and the long range revenue fluctuations, according to the findings. This link has been shown to be influenced by contextual factors such as past earnings announcements, industry participation, macroeconomic factors, and the nation of incorporation. The findings of the study back up the application of basic analysis.

Basic indicators were thought to be helpful in forecasting future profit fluctuations. The analysis indicate that the comprehensive model, which included both basic signals plus present shift in earnings per share, could predict greater variation in future earnings changes in the short and long run than the model that considers earnings per share changes only. As a result, the basic indicators give information outside present earnings changes that may be used to predict future revenue variations. Not all of basic indicators were important, but some of them were important in an unexpected way. Capital spending, in particular, was favorable in the near run, but this changed in the lengthy period, probably due to delayed impact of capital investment.

A research by Benard and Thomas (1990) found that stock values don't really completely represent the influence of current income on future income. They demonstrated how pricing responses to earnings releases for subsequent quarters could be anticipated utilizing present quarter results using a three-day framework. Furthermore, the three-day responses' direction as well as magnitudes are connected to earnings' autocorrelation pattern, as though share prices fail to support the amount that each company's income series departs from a seasonal stochastic process.

The study presented a hypothesis that future earnings will be equal to earnings for the comparable quarter of the prior year, a naive earnings expectation. The impact of risk adjustment and transactions costs did not provide sufficient alternative explanations for the evidence. These findings may raise questions about how to interpret the findings of many other researchers that presume all earnings data is completely accounted by the conclusion of earnings-announcement day. Furthermore, if market rates fail to completely represent the consequences of data as widely known as profits, how effectively do they represent less-publicized data like ratios?

Nirmala et al. (2011) discovered that dividends, profitability, the price-earnings ratio, and debt all have a substantial impact on stock prices. The data revealed a positive association among income, price-earnings ratio, and stock value, meaning that higher dividends and earnings will result in higher share prices. As a result, financial advisors might increase dividends to optimize shareholder returns.

Aurangzeb (2012) used cross sectional data from Pakistan, India, and Sri Lanka from 1997 to 2010 to investigate the factors that influence share prices. According to the regression results, exchange rates and foreign direct investment have a positive influence on share prices, but interest rates have a substantial negative impact on share prices. To take full advantage of stock markets and maximize share values, the study found that suitable macroeconomic policies should be in place.

Anwaar (2017) used five independent variables and one dependent variable to determine the influence of a company's performance on stock market returns for companies listed on the London Stock Exchange's FTSE-100 Index. Earnings per share, quick ratio, return on assets, return on equity, and net profit margin were employed as independent variables with stock returns as the dependent variable. The results demonstrate that net profit margin and return on assets have a strong positive association with stock returns, but earnings per share has a strong negative correlation with stock returns. Short-term investors sell their shares as earnings per share rise. As a result, there is an excess supply of the stock and stock returns are reduced. The impact of return on equity and quick ratio is negligible.

Bayrakgaroglu, Mirgen and Kuyu (2017) used stock prices of Turkish businesses as a measure of performance and studied changes caused by five profitability measures using panel regression. The research employed three models and found high levels of significance, and that stock market prices were dependent on profitability ratios to a degree of 28 to 38 percent. As a result, there is a positive linear connection between company stock prices and net profit margins.

These findings, on the other hand, contradicted those of Puspitaningtyas (2017), who looked at 45 non-banking firms listed on the Indonesia Stock Exchange from 2011 to 2016. To examine the influence of the independent factors (liquidity, profitability, growth, and market valuation) on the dependent variable, the data was analyzed using multiple linear regression (stock price). Based on the findings, it was determined that only market value factors (earnings per share) had a substantial impact on the stock price. Liquidity, profitability, and growth, on the other hand, were shown to have no direct influence on a company's stock price.

Shamshudin et al. (2013) undertook research to assess the association between selected Islamic banks' historical financial performance and their share performance measured by the price earnings ratio. The link between profitability, efficiency, and liquidity, as well as stock performance, was explored. In order to do ratio analysis, a collection of quarterly data from 2007 to 2012 was employed. The findings revealed that when a firm does well, its stock performs well as well. In this scenario, the lower the PER (Price Earnings Ratio), the greater the TATO (Total Assets Turnover) and ROA (Return on Assets). The results reveal an inverse link between all independent factors and a company's PE, which answers the fundamental question about the relationship between the independent and dependent variables.

The impact of profitability (ROA, ROE, NPM, GPM) and inflation on stock returns was investigated by Sa, Yunitab, and Iradianty (2016). Pharmaceutical businesses listed on the Indonesian Stock Exchange (BEI) between 2011 and 2014 were the target population. The findings revealed that ROA and NPM have a partial influence on stock return, but ROE, GPM,

and inflation had no effect on stock return. The combined influence of ROA, ROE, NPM, GPM, and inflation on stock returns is considerable.

Razdar and Ansari (2015) between 2005 and 2009, studied the impact of profitability parameters such as gross profit margin, financial costs ratio, return on assets ratio, and return on equity ratio on stock prices of firms listed on the Tehran Stock Exchange. They discovered that there is a substantial positive association between gross profit margin ratio and stock price, but no significant relationship between financial costs ratio and stock price in their research. Furthermore, there is a considerable positive association between the ROA and the share value. The ROE and share value have a favorable and substantial link.

2.4.2 Local Evidence

Enowi and Brijlal (2016), through multiple regression analysis of companies listed in the Johannesburg Stock Exchange, found that dividend per share, earnings per share, and the price-earnings ratio all had a combined influence of 57.8% on a company's share price. Furthermore, whereas dividend per share is not strongly connected with share prices, earnings per share and price earnings are.

Ratemo (2015) sought to establish whether there exists a relationship between stock prices and company performance for firms that engage in sustainability reporting. The research examined 12 companies listed on the Nairobi Securities Exchange during between the years 2012-2014. The findings were that the stock prices have positive association with ROA. The results mean that the stock prices of firms that engage in sustainability reporting do influence a company's

performance. This is the causal inverse of the relationship that the current study seeks to elucidate.

Ngunjiri (2016) studied the link between financial results and stock returns for Nairobi Securities (NSE) Exchange-listed companies. The study analyzed data of 67 NSE-listed companies during a five-year period, between 2011 to 2015. The findings revealed a considerable positive link between financial success, share price levels, dividend payout ratio and stock market returns. The model coefficients revealed a non-significant positive link between financial success, stock price levels, dividend payout (DPR), and stock returns of NSE-listed companies. According to the findings, there is a clear link between business results and stock returns, therefore better financial performance boosts stock returns for NSE-listed companies. The study also showed that stock prices and dividend payout have a uni-directional relationship with stock returns, thus a rise in share prices and dividend payout boosts stock returns of publicly traded companies. According to the study, managers of NSE-listed businesses should seek to enhance financial performance and design an optimum dividend distribution strategy that optimizes their companies' profitability.

Njogu (2017) studied nine (9) companies that had listed on the NSE between the year 2006 and 2015. The study's major goal was to figure out what factors influence stock market values in Kenya shortly after a company was listed. It determined the effect of Earning per Share, Dividend Policy and liquidity and size of a firm as dependent variables on stock market prices. DPS (Dividend per Share) and EPS (Earnings per Share) were shown to be the most important predictors of share prices after an IPO in the study. Furthermore, the liquidity and scale of a

company have a favorable association with its stock price. The report concludes by recommending that enterprises rethink their dividend policy after being listed on the NSE. Firms should grow their EPS by investing in feasible initiatives that boost earnings and paying dividends to their shareholders on a regular basis utilizing the earnings created.

Riaga (2020) explored the relationship between corporate governance and performance of companies at the NSE. The scope was limited to listed banking institutions. The study found that there was a significant relationship between several corporate governance parameters (board size, composition, frequency of meetings, ownership structure, transparency and financial structure) and share price performance at NSE.

Yousuf (2020) investigated the relationship between financial reporting and stock performance of companies listed at the NSE. The study established that financial reporting quality has a significant positive relationship with a company's value and stock performance while firm size has a significant negative relationship with firm value.

Marwa (2020) examined the effects of management control systems on the performance of 42 banks licensed by Central Bank of Kenya (CBK). The findings were that management control systems significantly affected financial performance with Continuous Improvement Process singled out as having the most profound effect. Ndwiga and Kiragu (2012) sought to find out the effects of agency banking on financial performance of banks that had adopted the agency model of operation. Return on Assets was used as a measure of profitability and the study concluded

that the larger the volume of money flowing through agents the better the financial performance (increased profitability) of the banks in the study.

2.5 Conceptual Framework

The conceptual framework lays out the relationship between variables in the study. This framework took into account the fact that cash flows have increasingly become the yardstick for measuring a company's performance. Investors measure a company's value by taking the cumulative future cash flows discounted to the present. The dependent variable is the stock price while the independent variable is cash flow coverage ratio.
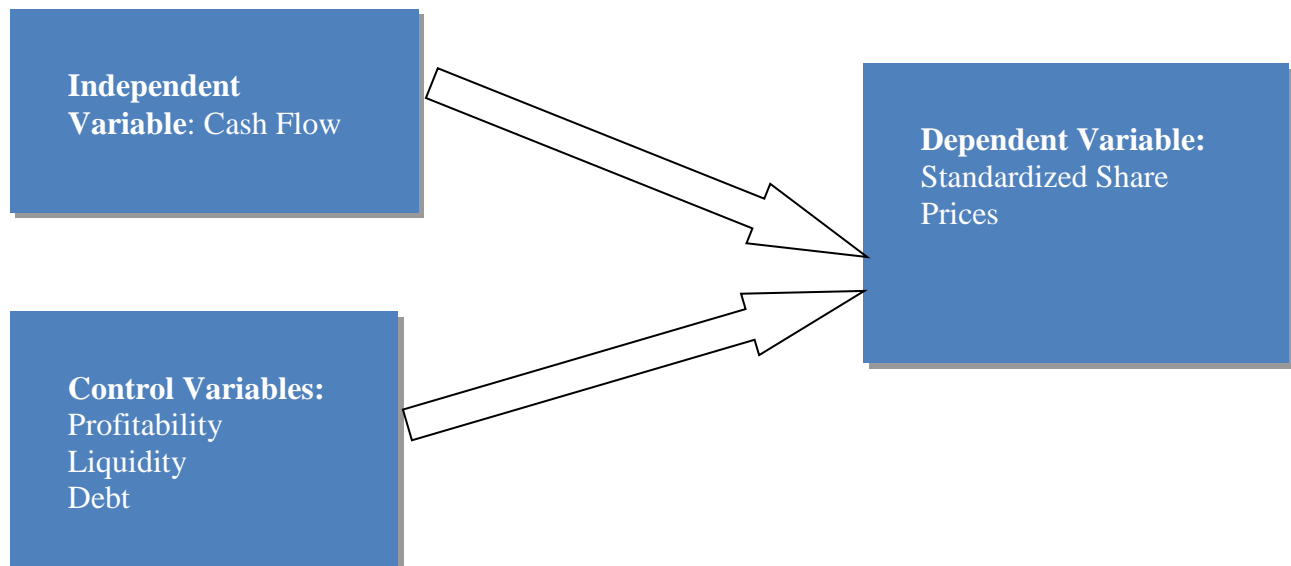
Independent Variable: Cash Flow

Dependent Variable: Standardized Share Prices

Control Variables: Profitability Liquidity Debt

Figure 2.1: Conceptual Framework

CHAPTER THREE   : RESEARCH METHODOLOGY

3.1 Introduction

This chapter sets out the mechanisms for conducting the research. It outlines the research design, target population, data collection methods, variables for analysis, the model and data analysis methods.

3.2 Research Design

The research was quantitative in approach and adopted a descriptive research design. The quantitative approach was adopted to allow the researcher to explore large secondary data sets on companies listed in the Nairobi Securities Exchange that are mainly numerical in nature. This allowed for correlation of the data for a clearer picture of causality to emerge.

3.3 Target Population and Sampling

The study targeted NSE-listed companies and used various segments of the stock market as clusters. A sample company was then randomly drawn from each of the segments resulting a total sample size of 10.

3.4 Data Collection

Secondary data were employed in this investigation such as historical prices from the Nairobi Securities Exchange and Company Financial Statements from various company websites. The data set included annual average stock prices and company financial ratios for the period between 2010 and 2021. The financial ratios were lagged optimally using Akaike Information Criterion.

3.5 Variables for Data Analysis

The table below shows the variables used in the study:

Table 3.1: Variables

Variable	Category	Description
Company Cash flows	Independent	Cash Flow Coverage Ratio from Financial Statements
Stock Prices	Dependent	Standardized Annual Average Stock Price from Nairobi Securities Exchange
Profitability Ratio	(Control)	Return on Capital Employed from Financial Statements
Liquidity Ratio	(Control)	Current Ratio from Financial Statements
Debt Ratio	(Control)	Debt Ratio from Financial Statements

3.5.1   Dependent Variable (Stock Prices)

The average annual stock prices were calculated by taking the sum of average monthly stock prices at the NSE divided by twelve.

3.5.2   Independent Variable (Cash flow Coverage Ratio)

The value of a company can be calculated by discounting all future cash flows to the present using a suitable rate. This coverage ratio reflects firms' operational cash flow to total debt, defining the sum of short-term borrowed funds, the current component of long-term debt, and long-term debt for the purpose of this ratio. Cash flow coverage was calculated as shown below:

$$\text{Cash Flow to Debt Ratio} = \frac{\text{Operating Cash Flow}}{\text{Total Debt}}$$

3.5.3 The Analytical Model

$$Y_t = \alpha + \beta_1 X_{1i,(t-n)} + \beta_2 X_{2i,(t-n)} + \beta_3 X_{3i,(t-n)} + \beta_4 X_{4i,(t-n)} + \varepsilon\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where: t = Year 1…10

$(t-n)$ = optimal lag

i = Company 1…….10

Y_t = Average Annual Stock Price of a Company i in year t (Standardized using z-scores)

α = The regression intercept

$X_{1i,(t-n)}$ = Annual Cash Flow Coverage Ratio for company i in year $(t-n)$

$X_{2i,(t-n)}$ = Annual Return on Capital Employed for company i in year $(t-n)$

$X_{3i,(t-n)}$ = Annual Current Ratio for company i in year $(t-n)$

$X_{4i,(t-n)}$ = Annual Debt Ratio for company i in year $(t-n)$

β_1 = Constant for variation of Cash Flow Coverage Ratio

β_2 = Constant for variation of Return on Capital Employed

β_3 = Constant for variation of Current Ratio

β_4 = Constant for variation of Debt Ratio

ε = Error term

3.6 Diagnostic Tests

3.6.1 Testing for Serial Correlation

The study used time series data over a period of 10 years. When a variable exhibits correlation over time, it is said to be auto correlated or serially correlated (Carter, Griffiths, & Lim, 2011). Serial correlation becomes a problem in time-series data when the errors associated with a given time period carry over into future time periods. Serial correlation in linear panel-data models

results in biased standard errors and less efficient results (Drukker, 2003). For instance, unobserved shocks to economic linkages such as investment or consumption often have a long-term impact. Testing for serial correlation in the disturbances is thus critical, as disregarding this issue would result in inefficient estimates and biased standard errors (Baltagi et al., 2008).

To test for serial correlation, the Durbin-Watson Test was conducted using SPSS. The Durbin–Watson d statistic takes values ranging from 0 to 4. The rule of thumbs is as follows: d that is less than 2 suggests positive autocorrelation; d that is greater than 2 suggests negative autocorrelation while d that is equal to 2 suggests no autocorrelation. The Durbin Watson statistic was investigated using Durbin-Watson Significance Tables.

3.6.2 Testing for Multi Collinearity

Multicollinearity refers to a phenomenon in regression models in which two or more explanatory variables are highly linearly related and can predict each other with a high degree of accuracy. This poses a problem because explanatory variables should be *independent*. If the degree of correlation between variables is high enough, it can cause problems when the model is fitted and results interpreted.

The study used variance inflation factor (VIF) which determines the strength of the association between independent variables. VIFs have no upper limit and can take on any value starting at 1. A value of 1 denotes there is no relationship between such a predictor variables and any other variables. VIFs between 1 to 5 indicate a substantial association, but not one significant enough

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to justify remedial action. VIFs greater than 5 indicate significant levels of multicollinearity that require intervention. (Hair, 2013)

3.6.3 Testing for Significance

Significance tests are a formal process of using hypotheses to test whether they hold for a certain population value. A coefficients estimate's significance is desired because it verifies a prior view that a certain explanatory variable is an important variable to be incorporated in the model (Carter, Griffiths, & Lim, 2011). The F-test as well as the t-test were used to determine significance at a 95% confidence level. The F-statistic was applied in assessing the statistical significance of the regression equation, while the t-statistic was utilized to assess the statistical significance of the research coefficients.

3.6.4 Optimal Lag

As a rule of thumb, data that is presented on an annual basis usually has optimal lags of between 1 and 2; quarterly data between 1 and 8; and monthly data between 6 and 24. Beyond optimal lag for a data set, degrees of freedom are likely to be lost and there is an exaggeration of standard errors. On the other hand, lags that are below optimal may result in bias when estimating using the data. The study utilised Akaike or Shwarz Information Criteria generated using E-Views to determine the optimal lag. From the results, the lag with the lower criterion value was chosen over the lag with the higher value. (Hanck, 2020)

CHAPTER FOUR   : DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents the results of the analysis of data, intepretation and a brief discussion of results. The discussion section compares the findings of the study with those of previous studies and challenges some widely held notions.

4.2 Optimal Lag

The study investigated whether independent variables needed to be lagged by a certain number of periods (n) to allow for causation to take effect. Table 4.1 shows the investigation undertaken to establish the optimal lag using Akaike and Shwarz Information Criteria. The lower value between the two lags and the lower value for Akaike and Shwarz was chosen (15.15692). This value corresponds with a lag of two periods hence (n = 2). As a result the independent variables were lagged by two years in the model.

Table 4.1: Optimal Lag

VAR Lag Order Selection Criteria
Endogenous variables: SHARE_PRICES CASHFLOW_COVERAGE ROCE CURREN...
Exogenous variables: C
Date: 06/10/22   Time: 13:53
Sample: 1 100
Included observations: 92

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-945.6985	NA	38.93291	20.68910	20.85356	20.75548
1	-666.1501	516.5567	0.195748	15.39457	16.54582*	15.85922*
2	-619.2184	80.60024	0.155841*	15.15692*	17.29496	16.01985
3	-583.2291	57.11333*	0.159782	15.15716	18.28198	16.41836
4	-560.7771	32.70181	0.225020	15.45168	19.56329	17.11116
5	-539.2358	28.56576	0.333910	15.76599	20.86439	17.82375
6	-518.1583	25.20126	0.523052	16.09040	22.17558	18.54643
7	-491.9944	27.87026	0.778019	16.30423	23.37620	19.15853
8	-451.8190	37.55528	0.923346	16.21346	24.27222	19.46604

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

Source: Research Findings

4.3 Standardization of Stock Prices

Since the data covered a period of 10 years there was a possibility of companies undertaking stock splits or issuing bonus shares. These tend to significantly reduce quoted share prices and gradually dilute the share values, respectively. To cure this anomaly, share prices were standardized using z-scores.

4.4 Descriptive Statistics

Table 4.2 lays out descriptive statistics for the data used in the study.

Table 4.2: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SharePrices	100	3.8125000	834.6666667	113.420283333	187.4248607229
CashflowCoverage	100	-.4395181	2.1128087	.309745821	.4135122061
ROCE	100	-.3708910	.8666321	.270687440	.2124802394
CurrentRatio	100	.0900431	8.5849455	1.507652555	1.2881095352
DebtRatio	100	.0484260	.7862621	.429703482	.1978418735
Valid N (listwise)	100				

Source: Research Findings

Cashflow coverage ratio had a mean of 0.3097 and a standard deviation of 0.4135, ROCE a mean of 0.2707 and standard deviation of 0.2125; current ratio a mean of 1.5076 and standard deviation of 1.2881; and debt ratio a mean of 0.4297 and standard deviation of 0.1978. Before standardization, the mean for stock market prices was 113.42 and the standard deviation 187.42. After standardization the mean and standard deviation were zero and one respectively.

4.5 Multicollinearity Test

One of the assumptions of regression analysis is that variables exhibit muticollinearity. Variance Inflation Factor was used to investigate multicollinearity among the independent variables.

Table 4.3: Collinearity Statistics

Variables	Tolerance	VIF
(Constant)		
CashflowCoverage	.749	1.336
ROCE	.748	1.337
CurrentRatio	.884	1.132
DebtRatio	.872	1.147

a. Dependent Variable: Zscore: SharePrices

Source: Research Findings

From the multicollinearity results in Table 4.3 cashflow coverage exhibited a Variance Inflation Factor of 1.336, ROCE a VIF of 1.337, Current Ratio a VIF of 1.132 and Debt Ratio a VIF of 1.147. All the VIFs ranged between 1 and 5 and this is an indicator that multicollinearity was of slight concern to the study and did not require any intervention.

Table 4.4: Collinearity Diagnostics

Collinearity Diagnostics[a]								
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	CashflowCoverage	ROCE	CurrentRatio	DebtRatio
1	1	3.619	1.000	.01	.02	.02	.02	.01
	2	.701	2.273	.00	.35	.05	.13	.02
	3	.410	2.970	.00	.16	.05	.46	.10
	4	.219	4.063	.00	.44	.74	.05	.13
	5	.050	8.486	.98	.04	.14	.34	.75

a. Dependent Variable: Zscore: SharePrices

Source: Research Findings

Further investigation of the Condition Indicies, revealed no indications of muticollinearity with all Condition Indices below 15 as shown in Table 4.4. Condition Indices of below 15 indicate no collinearity while those above 30 indicate high levels of collinearity. In addition, according to Hair et al. (2013) further examination of Variance Proportion is required to ascertain non-existence of collinearity. Two or more Variance Proportion values of above 0.90 in one

Condition Index row indicates that intervention is required. None of the Condition Indices exhibited this behavior and there was therefore no multicollinearity.

4.6 Autocorrelation

Table 4.5 shows the results of the investigation carried out to determine if the study data exhibited autocorrelation.

Table 4.5: Durbin-Watson Test

Durbin-Watson test statistic (d)	Sample Size	Regressors	Critical Value ($\alpha = 0.05$)	
			Lower (d_L)	Upper (d_U)
1.856	100	4	1.592	1.758

Source Research Findings

The Durbin-Watson Test statistic was d = 1.856. From the significance tables, a sample size of 100 with 4 regressors at 5% significance gives the lower limit of the test statistic as $d_L = 1.592$ and the upper limit as $d_U = 1.758$. In the test, the null hypothesis is that there is zero autocorrelation while the alternative is that there is autocorrelation. If the test statistic is lower than (d_L), we reject the null hypothesis while if it is more than the upper limit (d_U) we do not reject the null hypothesis. For this study d of 1.856 means that the null hypothesis was not rejected indicating no autocorrelation.

4.7 Significance of the Regression Coefficients

A multiple linear regression analysis was carried out to determine the significance of the relationship between the variables.

Table 4.6: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.767[a]	.588	.571	.65529975
a. Predictors: (Constant), DebtRatio, ROCE, CurrentRatio, CashflowCoverage				
b. Dependent Variable: Zscore: SharePrices				

Source: Research Findings

Table 4.6 indicates that 76.7% of the change in the dependent variable may be attributable to a change in predictor variables (ROCE, current ratio, cashflow coverage, debt ratio). These results indicate that the model adopted by the study is fit for making predictions.

Table 4.7: Analysis of Variance

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	58.205	4	14.551	33.886	.000[b]
	Residual	40.795	95	.429		
	Total	99.000	99			
a. Dependent Variable: Zscore: SharePrices						
b. Predictors: (Constant), DebtRatio, ROCE, CurrentRatio, CashflowCoverage						

Source: Research Findings

In addition, the F statistic of 33.886 was significant since it had a probability value of $p = 0.000$ which is less than $\alpha = 0.05$ (that is 95% confidence level). This is an indication that the predictor variables are in totality able to predict variations in stock market prices.

4.8 Correlation

Table 4.8 presents regression coefficients that constitute the regression equation.

Table 4.8: Coefficients of Regression

Coefficients[a]						
		Unstandardized Coefficients		**Standardized Coefficients**		
Model		**B**	**Std. Error**	**Beta**	**t**	**Sig.**
1	(Constant)	-1.780	.242		-7.348	.000
	CashflowCoverage	-.438	.184	-.181	-2.380	.019
	ROCE	3.927	.358	.834	10.957	.000
	CurrentRatio	.298	.054	.384	5.482	.000
	DebtRatio	.938	.356	.186	2.632	.010
a. Dependent Variable: Zscore: SharePrices						

Source: Research Findings

Probability values for *t* indicate that cashflow coverage (p=0.019), ROCE (p=0.000), current ratio (p=0.000) and debt ratio (p=0.010) are all significant predictors of stock market prices

based on α = 0.05. Therefore stock market prices of companies listed in the NSE are affected by all the predictor variables.

The coefficients of the significant predictors from Table 4.8 indicate the change in stock market prices caused by a unit change in each predictor. A unit change in cashflow coverage results in a change of 0.438 in stock market prices in the opposite direction. A unit change in ROCE results in a change of 3.927 units in stock market prices in the same direction. A unit change in current ratio results in a change of 0.298 units in stock market prices in the same direction. A unit change in debt ratio results in a change of 0.938 units in stock market prices in the same direction. The relationship between three of the significant predictors and stock prices was uni-direction while one of them (cashflow coverage) had an inverse relationship. The regression equation can be written as follows:

$$Y = -1.780 - 0.438X_1 + 3.927X_2 + 0.298X_3 + 0.938X_4$$

4.9 Discussion of Findings

From the results, a mean cashflow coverage of 0.3097 means that companies on average hold cash that covers total debt up to 30% at any one time. For the large companies included in the study this level of cash may be sufficient. However for smaller companies the level of cash reserves required may be higher going by the findings of the study by Al-Attar & Al-Khadash (2005) that the vauation of smaller companies is more sensitive to cashflow. An average ROCE of 0.2707 means that on average companies generate earnings that are 27% of capital employed. Current ratio of 1.5076 means that companies hold their liquid assets to a level that is enough to cover current liabilities 1.5 times. Debt ratio of 0.4297 means that on average the amount of debt

held by companies is 42% of assets. This means that 58% of assets are funded through equity underlining the assertions of the Pecking Order Theory that equity is the preferred mode of funding.

The study established that the predictor variables had a significant effect on stock market prices as a collective. Cashflow coverage had an inverse relationship with share prices while ROCE, current ratio and debt ratio had a positive relationship with share prices. The relationship between share price versus cashflow and ROCE established by the study agreed with Al-Attar & Al-Khadash (2005) who said that cashflow is a better measure of future performance than earnings only for small firms. A unit change in cashflow and ROCE resulted in a share price change of 0.438 in the opposite direction and 3.927 in the same direction, respectively. Since the companies included in the study were considered large, share prices were more responsive to ROCE than cashflow. The inverse relationship between cashflow coverage and share prices supports the notion by the Free Cashflow Theory that managers holding substantial free cashflows are prone to invest in value destroying projects, mergers or acquisitions. This results in investors withholding further investments in such companies that hold cash and curtail dividend payouts.

Moreover, the magnitude of the effect that ROCE was found to have on share prices relative to other ratios lends credence to the Pecking Order Theory which says that management prefer to fund company operations using retained earnings before moving on to other sources of funding. Inspite of knowledge assymetry issues in the agency relationship, shareholders, just like management, lay emphasis on the importance of earnings in their investments decisions.

In agreement with the study, Liu (2006) found that profitability measures (ROCE included) were better indicators of stock market performance when compared to internal ratios which are usually not as highly publicized even with the release of full financial statements of companies. The relationship between ROCE and share price in the study results agrees with Razdar and Ansari (2015) and Nirmala et al. (2011) who established a considerable positive association between earnings, ROA and ROE on one hand and share value on the other. The findings however contradicted Sa et al. (2016) who revealed that ROE had no effect on stock return. In addition the study only agreed partially with Anwaar (2017) who demonstrated that ROA had a strong positive association with stock returns, but earnings per share had a strong negative correlation with stock returns.

CHAPTER FIVE   : CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the findings of the study on the effect of cashflow on stock market prices of companies listed in the Nairobi Securities Exchange. There are also conclusions drawn from the findings; recommendations for policy makers, investors and the public; and areas suggested for further research.

5.2 Summary of the Findings

The relationship between cashflow and stock market prices was analyzed in the study. An initial analysis involved descriptive statistics of the data. The mean of stock market prices was 113.42 while the mean of the independent variables was 0.3097, 0.2707, 1.5076 and 0.4297 for cashflow coverage ratio, ROCE, current ratio and debt ratio, respectively. The optimal lag for the data was established as 2 and this was applied accordingly.

Two assumptions made during regression analysis were that there is muticollinearity and autocorrelation, two phenomena that could cause bias in interpretation of data. The data was tested for mutlicollinearity with a conclusion that it was not a problem for the study. The Variance Inflation Factors ranged between 1 and 5 which indicated that there was no muticollinearity. The Durbin-Watson test indicated no autocorreltation among the study variables. Futher investigation of collinearity diagnostics revealed that all the condition indices were below 15 and none of the variable proportions were above 0.9 for each of the indices. These two conditions eliminated multicollinearity. The model summary indicated that the combined effect of the predictor variables on the independent variable was considerable at

76.7%. In the analysis of variance the value F = 33.886 was significant as indicated by probability value p = 0.000 which is less than 0.05. This showed that the model could be used to make predictions.

The study established that cashflow coverage (p=0.019), ROCE (p=0.000), current ratio (p=0.000) and debt ratio (p=0.010) were significant predictors of stock market prices, with p-values lower than α = 0.05. Therefore stock market prices of companies listed in the NSE were found to be significantly responsive to all the predictor variables.

A unit change in cashflow coverage results in a change of 0.438 in stock market prices in the opposite direction. A unit change in ROCE, current ratio and debt ratio resulted in respective changes of 3.927, 0.298 and 0.938 units in stock market prices in the same direction. The relationship between three of the significant predictors and stock prices was uni-direction while one of them (cashflow coverage) had an inverse relationship.

5.3 Conclusions

From the study findings the conclusion is that cashflow exhibited an inverse relationship with share prices. This means that investors are not attracted to companies that have high levels of cash reserves resulting in weak demand and a fall in share prices. This supports the notion put forward by the Free Cash Flow Theory that shareholders would rather be paid dividends than management holding onto cash. It also supports the idea that managers who hold substantial cash reserves are more likely to engage in mergers or aqcuisitions that bring in little profit or that diminish value.

From the findings we conclude that cashflow is not an indicator of companies in which to invest in the NSE. The findings partially support a study by Al-Attar & Al-Kadash (2005) which asserted that cashflow is a better measure of performance only for companies that are small in size. This is true especially with the assumption that since they are listed at the NSE, companies included in the study are relatively large. However the study contradicts Anderson and Carverhill (2005) who said in their study that restrictive cash policies boost equity values.

The study found that ROCE was positively and significantly related to stock prices. This contradicts the findings of Sa et al (2016) who found that ROE had no effect on stock return and Anwar (2017) who found that earnings had a strong and negative correlation with stock returns. The study is in agreement with other studies such as Bayrakgaroglu et al (2017) and Radzar and Ansari (2015) who found a positive linear relationship between stock prices and returns or profitability.

With the finding that current ratio and debt ratio have a significant relationship with stock market prices, the study contradicts Modigiliani and Miller (1958) who said that investors do not consider debt levels and funding structures when making investment decisions. In addition the study, by finding that current ratio had a significant relationship with stock price, goes against the findings by Puspitaningtya that liquidity had no influence on a company's stock price.

5.4 Recomendations

From the study, it is evident that investors have a positive view on profitability and a negative view on high levels of cashflow as indicated by uni-directional and inverse relationships with stock market prices, respectively. This could be an indicator of investors preferring to be paid

dividends as espoused in the Free Cash Flow Thoery. However the importance of cash as stated by Anderson & Carverhill (2005) cannot be overemphasized. In addition companies with high profitability but poor cashflow may be making large sales on credit and may not realise actual cashflow that is commensurate with the profits declared over the years. This can pose a problem for investors when a company that was profitable over the years suddenly declares bankruptcy. Using cashflow measures in investment decision making will enable the investors identify cashflow risks and apply mitigative measures (Nour,2012) such as investor activism of raising issues at an Annual General Meeting or disinvesting from the company in question altogether.

It is recommended that investors change their view on cashflow by being more thorough and working to establish cash flow levels before investing. Companies are also urged to put in place governance structures that promote transparency to eliminate the suspicion that management will engage in value destroying investments. Policy makers should help draw attention to internal business metrics through general awareness creation. Part of awareness creation could be through the policy makers' websites which apart from publicizing stock market prices and financial highlights for listed companies, should also contain the detailed financial statements of all listed companies. In this way investors would be encouraged to analyze companies in totality to come up with more informed investments decisions.

5.5 Limitations of the Study

The study was limited in the sense that data on internal measures for some of the recently listed companies were only available for a 10 year period. The study would have benefitted from a look at the relationship between the variables beyond the 10-year horizon.

The study did not use any of the indices created by the NSE as a measure of stock performance and hence there was no weighting of the stock prices when coming up with the stock market price variable. Although the stock market prices were standardized, the lack of weighting could result in sample bias which could lead to data being less representative of the target population.

In some financial reports the study experienced challenges in extracting certain figures such as current ratios because the assets and liabilities were reported *in toto*. The study had to use estimation and a reading of the notes to the financial statements for two companies in order to come up with the levels of current assets and current liabilities.

5.6 Suggestions for Further Research

The study focused on internal measures of financial health with one variable being external. Further research is recommended on the reasons why investors focus on profitability measures and not internal measures, especially cashflow. In addition, this raises the question of whether investors prefer to be paid dividends from all cash reserves. Further research should be done on what the optimal level of cash reserves should be. This proposed research could find out the relationship between size of a company and the optimal level of cash reserves to be held. In addition it could find out whether per capital income and disposable income in a country affect investor preference for dividends and by extension cash reserve levels.

Further studies would investigate whether there is a lag effect or whether investors would rather invest in the real economy first before moving into the relatively more obscure capital markets and only if there are surplus funds.

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APPENDICES

Appendix I: Data Collected

Year	Standardized Share Prices	Cashflow Coverage	ROCE	Current Ratio	Debt Ratio
Bamburi					
2010		0.7479	0.3540	1.6823	0.3507
2011		0.6089	0.3657	2.6204	0.2784
2012	0.25564	0.6127	0.2407	2.3480	0.2829
2013	0.52197	0.4504	0.1789	2.6813	0.2675
2014	0.32856	0.4987	0.2018	2.2968	0.2896
2015	0.24186	0.5085	0.2847	2.3571	0.2932
2016	0.31744	0.3593	0.2774	2.6966	0.2693
2017	0.30277	0.3536	0.1319	1.7187	0.2967
2018	0.28765	0.1671	0.0569	1.3206	0.3355
2019	-0.01892	0.1840	0.0418	1.3771	0.3454
2020	-0.3982	0.3980	0.0601	1.8112	0.3113
2021	-0.40154	0.1886	0.0679	1.8725	0.3185
British American Tobacco					
2010		0.3685	0.5748	1.1699	0.5401
2011		0.5272	0.7271	1.3069	0.5337
2012	1.35652	0.4957	0.7205	1.1780	0.5323
2013	2.37604	0.3634	0.7622	1.2562	0.5542
2014	3.29552	0.4671	0.7840	1.2491	0.5548
2015	3.653	0.3999	0.8666	1.4512	0.5261
2016	3.84819	0.5319	0.7055	1.4132	0.5245
2017	3.80995	0.4730	0.6838	1.3180	0.5597
2018	2.83712	0.5870	0.6681	1.5911	0.4924
2019	2.23299	0.6248	0.5895	1.0870	0.5571
2020	1.3533	0.4819	0.6401	1.3044	0.4501
2021	1.77491	0.6819	0.6257	1.6395	0.3791
Britam					
2010		0.1081	0.2719	1.7146	0.5832
2011		0.1303	-0.2015	1.5010	0.6662
2012	-0.57623	0.0967	0.2285	1.5342	0.6518
2013	-0.55689	0.0652	0.1887	1.5651	0.6389
2014	-0.48579	0.0658	0.1498	1.4203	0.7041
2015	-0.49311	0.0569	-0.0676	1.2948	0.7723
2016	-0.54113	0.0763	0.2371	1.2718	0.7863
2017	-0.53706	0.1040	0.0382	1.2969	0.7711
2018	-0.53701	0.0575	-0.0958	1.3006	0.7689

Year	Standardized Share Prices	Cashflow Coverage	ROCE	Current Ratio	Debt Ratio
2019	-0.56098	0.0937	0.1556	1.3064	0.7654
2020	-0.56475	0.0640	-0.5682	1.1423	0.8754
2021	-0.56565	0.0094	0.0530	1.1420	0.8756
Car & General					
2010		0.0411	0.2941	1.3132	0.5981
2011		0.0210	0.3200	1.1233	0.6548
2012	-0.47032	0.0787	0.2875	1.1601	0.6244
2013	-0.47365	0.0216	0.2683	1.1120	0.6372
2014	-0.37995	-0.0371	0.2464	1.1994	0.6526
2015	-0.3685	0.0678	0.1490	1.0562	0.6639
2016	-0.43141	-0.0345	0.1676	1.0054	0.6663
2017	-0.49511	0.0981	0.1507	0.9951	0.6428
2018	-0.49551	0.0820	0.1973	0.9903	0.6457
2019	-0.48419	-0.0364	0.1722	0.8731	0.6854
2020	-0.48212	0.1822	0.1885	0.8655	0.6691
2021	-0.45567	-0.0617	0.3310	0.9345	0.6640
Centum					
2010		1.1056	0.1439	1.2645	0.0484
2011		0.0929	0.2562	0.0900	0.2229
2012	-0.53392	-0.0819	0.1590	0.2348	0.1320
2013	-0.48128	-0.0760	0.2674	0.3314	0.2805
2014	-0.35272	0.0260	0.2210	0.2054	0.3150
2015	-0.30314	0.0188	0.2546	0.3542	0.4662
2016	-0.37495	0.0823	0.3225	0.3818	0.4458
2017	-0.39429	0.0481	0.2020	0.2687	0.4402
2018	-0.41054	0.0598	0.0964	0.2690	0.4784
2019	-0.43604	0.0725	0.1356	0.2980	0.4932
2020	-0.48517	0.4378	0.1647	0.3432	0.4834
2021	-0.51829	0.0682	0.0629	0.2086	0.5701
Equity					
2010		0.2538	0.3290	1.2349	0.0557
2011		0.0931	0.3698	1.2116	0.0754
2012	-0.49173	0.0862	0.4019	1.2143	0.1093
2013	-0.43153	0.0118	0.3647	1.2279	0.0963
2014	-0.37817	0.0813	0.3340	1.2271	0.0878
2015	-0.35605	0.0681	0.3321	1.2027	0.1002
2016	-0.41441	0.1637	0.3041	1.2093	0.0970
2017	-0.41385	0.1182	0.2886	1.2159	0.0913
2018	-0.36101	0.0915	0.2997	1.1985	0.0787

Year	Standardized Share Prices	Cashflow Coverage	ROCE	Current Ratio	Debt Ratio
2019	-0.38257	0.0427	0.2816	1.1989	0.0842
2020	-0.4044	0.1152	0.1599	1.1582	0.0957
2021	-0.36554	0.1108	0.2945	1.1561	0.0984
Safaricom					
2010		0.5749	0.3758	0.6674	0.4017
2011		0.6681	0.3005	0.6361	0.4075
2012	-0.58481	0.6672	0.2917	0.5634	0.4087
2013	-0.56482	0.8053	0.3525	0.6930	0.3771
2014	-0.53735	1.1791	0.4041	0.7402	0.3224
2015	-0.52254	1.1580	0.4555	0.6245	0.3356
2016	-0.50789	1.5223	0.4897	0.7054	0.2666
2017	-0.48573	1.4674	0.6709	0.4642	0.3459
2018	-0.4578	2.1128	0.6545	0.6309	0.2599
2019	-0.45756	2.0738	0.6355	1.0800	0.2501
2020	-0.44758	1.5734	0.7574	0.8641	0.3290
2021	-0.39273	1.1332	0.7110	0.7410	0.4032
Standard Group					
2010		0.2804	0.3637	1.3221	0.5355
2011		0.1735	0.2113	1.0780	0.5291
2012	-0.47832	0.2594	0.2302	1.1158	0.4748
2013	-0.45609	0.1235	0.2070	1.1561	0.5097
2014	-0.42352	0.2556	0.2013	1.2192	0.4617
2015	-0.41641	-0.0453	0.2980	0.9537	0.5689
2016	-0.4683	0.2101	0.2424	1.1693	0.5287
2017	-0.44651	0.2517	-0.0542	0.8469	0.5820
2018	-0.44335	0.1042	0.2891	0.9120	0.5917
2019	-0.46025	0.1902	-0.3709	0.5969	0.6613
2020	-0.48842	0.0554	-0.2412	0.5072	0.7239
2021	-0.51145	0.0591	0.1346	0.4599	0.7597
Total Energies					
2010		0.2891	0.2445	1.1481	0.6846
2011		-0.0771	0.1795	1.1025	0.7388
2012	-0.52263	0.3567	0.1050	1.3020	0.5697
2013	-0.50871	0.3193	0.1537	1.2774	0.6154
2014	-0.4701	-0.4395	0.1551	1.4882	0.4953
2015	-0.48461	0.4708	0.1510	1.5236	0.4858
2016	-0.51242	0.2139	0.2048	1.6454	0.4653
2017	-0.49102	0.0230	0.1955	1.7341	0.4366
2018	-0.44678	0.7089	0.1639	1.7697	0.4227

Year	Standardized Share Prices	Cashflow Coverage	ROCE	Current Ratio	Debt Ratio
2019	-0.45184	-0.0209	0.1667	2.1529	0.3509
2020	-0.47652	0.5411	0.1840	2.0516	0.3752
2021	-0.47557	0.1964	0.1495	2.0183	0.3916
Williamson Tea					
2010		0.2458	0.3525	2.0344	0.3487
2011		0.3353	0.3029	2.9560	0.2920
2012	0.69226	0.1021	0.2353	2.4058	0.3173
2013	0.62112	0.3023	0.1973	3.6343	0.2699
2014	0.90168	0.1395	0.1582	8.4362	0.2294
2015	1.16222	0.0191	-0.0454	8.5849	0.2308
2016	0.4157	0.3310	0.1349	4.9084	0.2494
2017	0.30988	0.1205	-0.0577	3.4721	0.2714
2018	0.20729	0.1120	0.1183	2.9855	0.2796
2019	0.15182	0.5460	-0.0336	4.0362	0.2363
2020	0.07345	0.1372	0.0170	3.9148	0.2233
2021	0.12603	0.2935	-0.0113	4.0559	0.2595

Appendix II: Companies sampled from Nairobi Securities Exchange

	Company	Sector
1	Bamburi Cement	Construction
2	Britam	Insurance
3	British American Tobacco	Manufacturing
4	Car and General	Automobiles
5	Centum	Investment
6	Equity Group	Banking
7	Safaricom	Telecommunications
8	Standard Group Limited	Commercial
9	Total Energies	Energy
10	Williamson Tea Kenya	Agricultural