

**COINTEGRATION RELATIONSHIP BETWEEN SHARE PRICES AND
DIVIDEND PAYOUT AMONG FIRMS LISTED ON NAIROBI
SECURITIES EXCHANGE, KENYA**

BY

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**A RESEARCH THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENT FOR THE AWARD OF THE MASTERS DEGREE IN
BUSINESS MANAGEMENT (FINANCE SPECIALIZATION) IN THE
SCHOOL OF BUSINESS AND ECONOMICS**

MOI UNIVERSITY

2025

DECLARATION

Declaration by candidate

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DEDICATION

This thesis is dedicated to my parents for their efforts in molding me into the person I am today. God bless you all abundantly.

ACKNOWLEDGEMENTS

I am grateful for the invaluable and professional assistance of my two excellent supervisors, Dr. Naomi Koskei and Dr. Vincent Ngeno, who have taken the time to help me write this research.

ABSTRACT

Dividend payout anticipates causing a price change. The clear disclosure of company's projected future profits is one of the informational components of dividends. Dividend payments are a good indicator that the company is profitable and financially strong in the market. When a company increases its dividend payout, it is a good indicator of the company's expected increase in earnings, which leads to increased demand for the company's shares. Therefore, based on projected future profits, current dividend distribution decisions will change. The experience of price bubbles on NSE due to mispricing is inconsistent with efficient market hypothesis. The aim of this study was to establish the effects of share prices on dividends payout among companies listed in NSE, and to examine the cointegrating relationship between share prices and dividend payout of firms listed on NSE. The study employed explanatory research design. The study targeted 52 firms listed in NSE from 2013-2023 giving a total of 572 observations. The study used secondary data for NSE 20 Share Index prices and dividend. The theories that guided the study were Efficient Market Hypothesis, dividend signaling hypothesis and dynamic Gordon growth and present value model of stock prices. The study tested for stationarity and results confirmed stationary after first difference. The study analyzed the data using STATA and results presented in form of descriptive and inferential statistics. Panel analysis was used to examine the short term effects of dividend on share prices. Westerlund Cointegration Test and Pedroni and Kao Panel Cointegration Test confirmed presence of cointegrating relationship between dividend payout and share prices. Share price was found to have a positive ($\beta=1.1883$) and significant ($p=0.001<0.05$) effect on dividend payout while in the short run there was an insignificant ($\beta=0.0879$, $p=0.523>0.05$) effect of dividend payout on share price. Further, the co-integrating relationship was negative cointegration ($\beta = -5.45$, $p=0.000$) in the long run. That means high shares prices reduced dividend payout in the long-run but increases in the short run. Companies listed in NSE should stabilize dividends. In the short term, a company may choose to maintain or slightly increase dividend payments even if earnings have not significantly grown. This can be a way to signal investors that the company is committed to its dividend policy, which may positively impact share prices. Implement a consistent dividend growth policy, gradually increasing dividends over time. This conveys to investors that the company maintains financial stability and remains dedicated to providing returns to its shareholders. Moreover, it is essential to undertake a study examining the impact of dividend announcements on share prices for firms listed on the NSE and, by extension, in emerging markets. Furthermore, future research should explore how dividend policy influences market returns specifically within the Kenyan context.

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ABBREVIATIONS

ADL	- Autoregressive distributed lags
AIC	- Akaike information criteria
AIMS	- Alternative investment market segment
CMA	- Capital market authority
ECM	- Error correction model
EGARCH-M	- Extensive generalized autoregressive conditional heteroscedasticity model
EMH	- Efficient market hypothesis
FOs	- Further offers
IPOs	- Initial public offer
JSE	- Johannesburg stock exchange
MIMS	- Main investment market segment
NSE	- Nairobi stock exchange
OLS	- Ordinary least squares
SIC	- Schwarz information criteria
US	- United States
VECM	- Vector error correction model
WEBS	- World equity benchmark
WFEs	- World federation of exchanges

OPERATIONAL DEFINITION OF TERMS

Asset price bubbles-	A scenario where asset prices progressively diverge from their fundamental worth or the intrinsic value of the corresponding assets.
Cointegration-	It refers to a statistical characteristic found in certain time series, encompassing the concepts of stationarity and the order of integration.
Efficient market hypothesis-	It asserts that asset prices completely incorporate and reflect all publicly available information within the stock market.
Market efficiency-	It states that stock prices adjust swiftly and without bias to incorporate new and relevant information that influences price movements.
Present value model-	It asserts that the current value of an asset is determined by its existing earning potential or its capacity to generate future income.
Rationality-	Markets are rational, meaning they operate efficiently by accurately reflecting the correct prices, thereby supporting the Efficient Market Hypothesis.

CHAPTER ONE

INTRODUCTION

1.0 Overview

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

1.1 Background of the Study

Rather than depending on information provided by a company's management, most finance theorists believe that, a market should provide an alternative mechanism for valuing assets. This is essentially the fundamentals of market efficiency theory, which is at the heart of the majority of theories and propositions that underpin the field of finance. Introduced by (Fama, Fisher *et al.*, 1969; Fama, (2023). According to the market efficiency hypothesis, market prices should fully reflect all available information, both historical and current, by imposing a structure on the numerous data sets available to market players (Fama 2023). As put by (Easley and O'hara 2004) This interpretation of an efficient market assumes that asset prices are always and everywhere at the correct price. That is, current market prices accurately reflect assets' true values after taking into account current economic and firm-specific conditions, as well as how those conditions will change in the future.

When considering the relationship between an asset market that accurately mirrors the available information (at least to the extent that the cost of acquiring the information allows) and its role in facilitating the optimal allocation of resources, it may seem intuitive to assume that market efficiency is always desired. However, subsequent studies have shown that an asset market that is informationally efficient does not necessarily guarantee allocative or production efficiency within the broader economy. This distinction arises due to market incompleteness and the pivotal function that prices

serve in revealing information, especially in situations where information is expensive and valuable. Therefore, these two concepts (informational efficiency and economic efficiency) are separate and not inherently linked (Sewell, 2011).

In an ideal scenario, market efficiency is critical in establishing a standard for asset pricing. When the market evaluates the probability distribution of future prices, it does so based on the information that investors deem relevant. A market is considered informationally efficient when the actual distribution of prices is fully dependent on all available information at any given time. This means that prices accurately reflect all known data, ensuring that no investor can consistently achieve above-average returns through information asymmetry. Market efficiency, on the other hand, provides a suitable framework for considering a wide range of asset-pricing decisions. The rational expectations are directly related to market efficiency Muth (1961) as well as the requirement for asset prices to be in a state of equilibrium Lucas (1978). When markets are efficient, they operate in such a way that the acquisition of new information adds little value. The notion in financial models that more information should be free because it is already reflected in prices stems from this position. It is significantly more likely that financial instruments traded on stock exchanges will have transparent pricing (Malkiel, 2011).

If this is the case, profiting from price predictions in an efficient market should be extremely difficult and unlikely. As a result, the advent of new information would be the sole driver of price fluctuations. When this occurs, an efficient market is supposed to respond to new information quickly and, on average, without prejudice. As a result, the prices that will prevail following this change will continue to represent all publicly accessible information at the moment. There is no reason to suppose that prices are

excessively high or too low because securities prices change before any investor has time to trade on and profit from fresh information (Hoberg & Prabhala 2009).

Although prices are fundamentally based on logical reasoning, their movements are expected to be unpredictable and random due to the inherent uncertainty of new information (Schwert, 2003). This unpredictability is one of the key reasons why stock prices are widely believed to follow a random walk. The random walk theory suggests that if information is disseminated freely and rapidly incorporated into stock prices, then future price movements will solely depend on newly emerging information rather than past price trends. Consequently, stock prices fully integrate all accessible data, ensuring that even investors with limited knowledge can achieve returns comparable to seasoned experts simply by purchasing a well-diversified portfolio at prevailing market prices (Shiller, 2003).

Obviously, a dividend announcement or payment is one of these types of data points that would be expected to produce a price shift. One of the information components of dividends is to clearly disclose management's future earnings predictions (Miller and Modigliani 1961). As a result, current dividend distribution decisions will change in response to future profit estimates. This argument is also backed up by (Allen and Michaely 2003) who point out that dividends are employed as an ex-ante signal of future cash flows while also providing as a description of the sources and uses of funds, earnings data is provided.

As a result, in an efficient market, dividend payments will be promptly incorporated into share prices as an information set. This suggests that dividend changes are most likely to be followed by fair price fluctuations in the stock market. The present value model, for example, exemplifies this effectively (Campbell, 2014), when they

demonstrated that stock prices should not deviate from their related dividends or attractor indefinitely. Because it determines the uniqueness of prices, the rationality of agents, and the forecastability of returns, the relationship between stock prices and dividends is a major concern for market players and researchers (Cochrane 2008). Stock prices, according to the asset present value concept, are equal to the total of predicted discounted dividends, as a result, stock price discrepancies from fundamental prices are a reflection of market players' irrational conduct. According to Greenwood and Shleifer, (2014) ,they illustrate that the present value model's anticipated prices are considerably smoother than realized prices, however, the pattern of price changes appears to be the same. Furthermore, according to the present value model, an asset's present value is determined by its earning power, or potential to generate future income.

This principle is fundamentally based on investors' expectations regarding future stock returns, alongside the discount rate they are willing to accept when sacrificing immediate income in favor of potential future gains. This decision-making process is further complicated by the inherent unpredictability of financial markets, where outcomes are never entirely certain. From a fundamental valuation standpoint, the present value model serves as a crucial framework, establishing a direct relationship between the current worth of an asset and the projected future income or cash flows it is expected to generate over time.

However, the concept of market efficiency is built upon a set of theoretical assumptions that impose limitations on how effectively it applies to real-world stock markets. One key assumption is that all trading activities are conducted with complete transparency, ensuring that asset prices remain fair and unbiased. This fairness arises from the fact that prices fully integrate all available and relevant information, including investors' collective expectations about future market share and performance.

According to this theory, information is defined as any factor that impacts prices in a way that is not currently known and emerges unpredictably in the future. This implies that stock prices react only to new, unforeseen developments rather than past trends or patterns. As a result, unless an investor experiences exceptional luck, it is virtually impossible to consistently achieve returns that outperform the broader market by relying on information that has already been priced into stocks. This underscores the idea that markets operate efficiently in processing data, making it extremely difficult for individuals to gain a sustained advantage simply by analyzing publicly available information (Malkiel & Fama, 1970). Following these constraints, market efficiency also demonstrates information transfer as well as the relative strength of a few market participants. The market mechanism, for example, takes anywhere from a few hours to several weeks to adjust to changes in interest rates, but the efficient market hypothesis states that this process should be instantaneous. Another real-market inefficiency is that, in extreme cases, fundamentalists regard irrational investment behavior to be the norm. Speculators, for example, typically drive the last stages of a bull market, paying little attention to the asset's fundamental worth, (Helena, 2009).

Nairobi Securities Market is a Kenyan stock exchange that trades equities, bonds, and preference shares. The stock market supports a variety of economic activities such as trading, investment, speculation, and hedging options for local and international investors, allowing businesses to mobilize capital, analyze growth, and maintain stability. The NSE has played an essential part in the economic growth process as a capital market institution. It has aided in the mobilization of domestic savings, allowing financial resources to be reallocated from dormant to active actors. Long-term investments have become more liquid due to the ease with which securities may be transferred between shareholders, (NSE, 2016).

The primary role of the stock market is to facilitate the distribution of ownership in an economy's total capital stock. In an ideal scenario, a well-functioning market ensures that prices serve as precise signals for resource allocation, guiding both businesses and investors in making informed financial decisions. This means that companies can strategically allocate capital to profitable investment opportunities, while investors have the ability to choose from a diverse range of securities that represent ownership in various business ventures.

A crucial characteristic of such an efficient market is that stock prices "fully reflect" all relevant information at any given moment, ensuring that both corporate managers and individual investors operate within a transparent and well-informed financial environment. When markets function in this manner, they contribute to overall economic efficiency by enabling capital to flow to its most productive uses, ultimately supporting economic growth and financial stability (Goyal, 2012). According to published studies on the NSE's efficiency in Kenya, the exchange is weak-form efficient. Cross-country evaluations of African capital markets, for example, demonstrate that nascent capital markets, such as Kenya's, are inefficient, (Appiah-Kusi and Menyah 2003). The inefficiency of Kenya's capital market has been blamed on a variety of factors. The manual listing and paper certification on the exchange, which had previously hampered information flow, were prominent among them. There were delays in changing stock prices to reflect available market information during this period, resulting in over and under valuation of company prices. (Onyuma 2009).

The aim of this study was to test the rationality of Nairobi securities market. If an asset's market is rational, its value or price and income variables should be connected, and its spread should be stationary.

1.2 Statement of the Problem

The relationship between share prices and dividend payout is a fundamental aspect of investment decision-making, as dividends are often perceived as a signal of a firm's financial health and future growth prospects. Despite extensive theoretical and empirical studies on this subject in developed markets, there remains a lack of consensus on the nature and strength of this relationship, particularly in emerging markets like Kenya. The Nairobi Securities Exchange (NSE) has experienced fluctuations in share prices driven by various economic, regulatory, and market dynamics, raising concerns about the extent to which dividend payouts influence stock valuation. While some investors consider dividends a key factor in their investment choices, others focus on capital gains, creating a need to empirically analyze whether a long-term equilibrium relationship—cointegration—exists between these two variables.

Understanding the cointegration relationship between share prices and dividend payout among firms listed on the NSE is critical for investors, policymakers, and corporate managers. If a stable long-term relationship exists, it would imply that changes in dividend policies have a predictable impact on stock prices, aiding investors in portfolio management and firms in capital structure decisions. Conversely, if no such relationship is found, it would suggest that other factors play a more dominant role in determining share prices. The lack of comprehensive local studies examining this relationship using advanced econometric techniques further underscores the need for this research. By analyzing the extent of cointegration between these variables, this study aims to provide empirical insights that contribute to the ongoing debate on the relevance of dividends in stock price movements within the Kenyan financial market.

Dividends are regarded as significant in the firms because of their Information Value. Dividend payments are a good indicator that the company is profitable and financially strong in the market. When a company increases its dividend payout, it is a good indicator of the company's expected increase in earnings, which leads to increased demand for the company's shares and, as a result, an increase in its share price. A decrease in dividend payout, on the other hand, indicates to shareholders that the company is underperforming and that management does not believe the current dividend policy can be sustained.

Numerous studies have been conducted to examine the impact of the dividend payout ratio on stock prices. Since asset prices are grounded in rational expectations, fluctuations in their values are anticipated to be random and unpredictable due to the inherently uncertain nature of new information. Aduda, Masila et al. (2012) make a distinction between the probability distribution of returns that the market perceives (based on the information that investors consider relevant) and the concept of informational efficiency, which holds that these distributions should be identical. If the distributions align, asset prices accurately reflect their true values, signifying an efficient market.

In an analysis of stock prices on the Shanghai Stock Exchange, Chow et al. (1999) apply a log-linear version of the present value model. Interestingly, their findings reveal that this model effectively explains the pricing of 47 actively traded stocks at the start of 1996, 1997, and 1998. However, concerns have been raised regarding the reliability of using such a dataset. Chow and Liu (1999) argue that stock prices can exhibit greater volatility than what future dividend movements would justify, particularly when dividend swings exhibit a degree of memory over time. If the present value model assumes a fixed discount rate, this memory effect can create a misleading bias in stock

prices, leading to excess volatility that mimics the presence of rational speculative bubbles. Additional research on these dynamics can be found in studies such as those conducted by Crowder and Wohar (1998) and Lee (1995), which further explore the complexities of stock price movements in relation to dividends and market efficiency.

Given these concerns, this study seeks to address the existing doubts by conducting a comprehensive analysis. Specifically, the research tests the present value model using data from 52 firms listed on the NSE equities market over an eleven-year period. To achieve this, a panel cointegration approach is employed, allowing for an in-depth examination of both long-term and short-term relationships between dividends and stock prices.

1.3 General Objective

The main objective of this study was to examine the short-run and long-run relationship between share price and dividend payout among the selected firms listed on Nairobi stock exchange.

1.3.1 Specific objectives

1. To establish the effects of share price on dividend payout of shares of firms listed on NSE
2. To establish the effects of dividend payout on share price of firms listed on NSE
3. To examine the cointegrating relationship between price of shares and dividend payout of firms listed on NSE

1.4 Research Hypothesis

H_{O1} : Share price does not have a statistically significant effect on dividend payout of firms listed in NSE

HO_2 : Dividend does not have a statistically significant effect on share price of firms listed in NSE

HO_3 : Share Price does not have a significant cointegrating relationship with dividend payout of firms listed in NSE

1.5 Significance of the Study

This research contributes to existing literature by providing new insights into the efficiency of the Nairobi Securities Exchange (NSE) through the use of a more recent dataset focused on dividend announcements. By analyzing this updated data, the study demonstrates the ability of dividend changes to predict future earnings fluctuations, offering a clearer perspective on market efficiency.

The findings of this study hold significant value for investors, as they offer a deeper understanding of how the market reacts to corporate actions such as stock splits, new stock issuances, and takeover bids. These insights are crucial in guiding investment decisions, as they help investors anticipate market movements based on dividend changes. Furthermore, the study's results emphasize the importance of closely monitoring mutual fund performance, as fund managers and institutional investors rely on accurate market assessments when making strategic investment choices.

Further, few studies of this kind have been done in Kenya therefore translating too few literature available which is not really related to the test of market efficiency to ascertain the short-term and long-term relationship of dividends and share prices. This forms a basis for future academicians in this field and other related fields, thus acting as benchmark for further studies. The study forms a valuable literature for future studies and also acts as a guideline for the studies to those who may want to undertake similar or related studies.

1.6 Scope of the Study

The research aimed at understanding short-term and long-term relationships between share prices and dividends among selected firms listed on NSE. it aimed at establishing whether the market was rational or irrational. The research covered those firms that were listed in the NSE and had been actively trading for the eleven years. Those firms that had not been actively trading their securities in the NSE from 2013 to 2023 were excluded from the study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Overview

This chapter explored the theoretical and conceptual underpinnings of the apparent relationship between share prices and dividend payments. The discussion began with an overview of existing literature on the concept of market efficiency, providing insights into how stock prices incorporate available information. Following this, the chapter examined the long-term relationship between dividend distributions and share price movements, highlighting key findings from previous studies. Lastly, the discussion covered both the theoretical framework and the conceptual framework, outlining the foundational principles and models that support the study's investigation into the interaction between dividends and stock prices.

2.1 Concepts of the Study Variables

The following section defines concepts of the variables being studied.

2.1.1 Concept of Share Prices

The share price represents the monetary value of a company's stock at a given point in time. The overall valuation of a publicly traded company is referred to as its market capitalization ("market cap"), which is determined by summing up the total value of all outstanding shares. According to the present value concept, stock prices are largely influenced by the anticipated value of future dividends, as these dividends derive their worth from projected future earnings (Cochrane, 2009). Essentially, the share price reflects the current market valuation of a particular security or stock.

In an efficient market, stock prices serve as a key indicator of a firm's overall value and financial performance (Sloan, 2012). Investors heavily rely on stock prices when

making investment decisions, as these prices provide insights into a company's stability and growth potential (Gill et al., 2012). Given that stock prices are subject to frequent fluctuations, these variations often act as a reliable measure of a firm's performance over time (Sloan, 2012). Moreover, changes in share prices have significant implications for a nation's economy, influencing investor confidence, capital flows, and overall financial stability (Pasrun, 2015).

Stock prices are primarily shaped by a company's underlying business fundamentals, which encompass both economic and political factors. These external conditions, although beyond the direct control of the stock market itself, play a crucial role in determining share price movements. Investors and traders consistently monitor share price trends, as these patterns are largely influenced by prevailing economic fundamentals (Ngugi, 2014). In the Kenyan securities exchange, the fluctuations in share prices are predominantly driven by market forces, particularly supply and demand dynamics. These forces not only impact the market capitalization of individual firms but also affect the broader stock market as a whole (Sifunjo & Mwasaru, 2012).

The stock market price, also referred to as the share price, represents the assigned value for an individual share of a company. This price is influenced by the forces of supply and demand within the market. When the number of buyers exceeds the number of sellers, stock prices tend to rise due to heightened demand. Conversely, when the market has more sellers than buyers, the increased supply causes stock prices to decline. The financial performance of a company also plays a crucial role in determining share prices; when a firm is profitable and performing well, investor confidence grows, leading to higher share prices as more individuals perceive it as a valuable investment. However, the stock market is inherently volatile and carries significant risk, as share prices can fluctuate in response to economic downturns and external financial shocks.

Despite this volatility, investments that carry higher risks are often linked to the potential for greater returns.

Several studies have explored the impact of macroeconomic factors on stock market performance in Kenya. Bamurange et al. (2019) examined how selected macroeconomic variables influence stock market performance in Kenya, while Mutuku et al. (2015) conducted research on the dynamic relationship between stock prices and macroeconomic variables. Their findings indicated that macroeconomic indicators play a significant role in shaping the long-term performance of the equity market. Similarly, Rehman et al. (2019) investigated the link between equity market fundamentals and return comovements across ten Asian emerging and frontier markets.

Their study found evidence of a long-term relationship between bilateral equity market comovements and their underlying determinants. Additionally, Maina (2013) analyzed how macroeconomic factors influence stock prices for firms listed on the Nairobi Securities Exchange (NSE) and concluded that stock prices have a positive correlation with the macroeconomic variables examined in the study.

Stock markets play a crucial role in economic development by facilitating capital liquidity, enabling investments, and bridging the gap between capital surplus and capital deficits. They contribute to economic growth by channeling funds into productive investments. Fama (1970) and Malkiel (1999) argued that in an inefficient market, the relationship between risk and return becomes unreliable. Furthermore, economic activity, capital investments, and monetary policy can have long-term implications on stock price movements, potentially affecting returns and the risk premium demanded by investors. These findings suggest the existence of a bi-directional causal relationship between stock price fluctuations and macroeconomic

variables, reinforcing the idea that stock market dynamics are deeply intertwined with broader economic conditions.

2.1.2 Concept of Dividend Payout

Dividends are considered a form of payment for providing capital to a company (Kumar, 2003). Essentially, a dividend represents a portion of a company's earnings that is distributed to its shareholders, a decision made by the board of directors (Arthur & Sheffrin, 2003). It is essentially a share of the company's profits. When a company generates profits, it has the option to either reinvest those profits into its operations (referred to as retained earnings) or distribute them to shareholders as dividends. Often, a company may choose to retain a certain portion of its earnings while paying out the rest as dividends (Arthur & Sheffrin, 2003).

In a study by Marfo-Yiadom Agyei (2011), the dividend payments of banks in Ghana were examined, including both those listed on the stock exchange and those that are not. It's crucial to highlight that companies listed on the stock market may behave differently from those that are unlisted, as corporate policies can have a direct impact on the market value of a company's stock. This distinction is important because the behaviors of listed and unlisted companies can be influenced by various factors, such as market perception and investor expectations. Consequently, the study focuses on the determinants of dividend policy specifically within listed financial institutions in Ghana.

2.1.3 The Concept of Cointegration

Engle and Granger (1987) introduced the notion of cointegration, refers to where variables are cointegrated if there is a share of a stochastic trend over the long term. This principle is particularly relevant in economic modeling, where it is often linked to

established theories explaining relationships between different time series variables. For instance, the purchasing power parity theory suggests that a stable, long-term connection exists between money supply, price levels, and interest rates. Similarly, Fisher's hypothesis indicates that a persistent relationship can be observed between interest rates and inflation rates, reinforcing the notion of long-term economic equilibrium (Belke, Dobnik & Dreger, 2011).

In the domain of financial economics, the concept of cointegration applies to both high-frequency and low-frequency relationships. At higher frequencies, cointegration is largely driven by arbitrage arguments, where in an efficient market, identical assets should sell for the same price, according to the law of one price to eliminate arbitrage opportunities. This reasoning suggests that asset prices in trading markets tend to be cointegrated over time. Likewise, arbitrage theories in financial markets further imply that a cointegrating relationship exists between current market prices and their expected future values (Caldeira & Moura, 2013). In this context, cointegration plays a crucial role in maintaining long-term price stability, as forces within the system naturally adjust any deviations, ultimately restoring equilibrium. The persistence of this long-term relationship underscores the fundamental nature of cointegration in financial and economic systems.

Empirical studies on cointegration frequently utilize long-term time series data, typically measured at various intervals, such as annually, biannually, quarterly, or monthly, depending on the nature of the analysis. Two time series, denoted as X_t and Y_t , are considered to be cointegrated if at least one follows an (1) process. This means that while the individual series may display stochastic trends, their linear combination results in a stationary process of order zero, denoted as (0), as explained by Herlemont (2004). This implies that although X_t and Y_t may initially exhibit random, uncorrelated

behavior, they eventually develop a shared path over the long run. Once this cointegrating relationship is established, the variables no longer behave independently but instead move together in a predictable manner, confirming the presence of a long-term equilibrium dynamic.

2.2 Overview of the Nairobi Securities Exchange (NSE)

The origins of the Nairobi Stock Exchange (NSE) date back to the 1920s when trading in company shares began while Kenya was still under British colonial rule (IFC/CBK, 1984). Initially, share trading took place in an informal setting, but as the need for a structured marketplace grew, efforts were made to establish a formal exchange. This move was aimed at providing private businesses with access to long-term capital while also enabling the issuance of locally registered government loans. As noted by Parkinson (1984) and Munga (1974), there was no designated trading floor or professional stockbrokers during the early years of the exchange. Instead, share trading was carried out on a part-time basis by professionals such as accountants, estate agents, auctioneers, and lawyers, who would meet over informal discussions to negotiate and set prices for securities.

The first official stock brokerage firm was established in 1951 by Francis Drummond, marking a significant step toward the institutionalization of stock trading in Kenya. During this period, foreign investors played a dominant role in the market, primarily because they possessed extensive knowledge of structured capital markets. Additionally, their relatively higher incomes made it easier for individuals to save money and make securities investments (Aworolo, 1971). In an effort to enhance legitimacy and regulatory recognition, stockbrokers sought approval from the London Stock Exchange (LSE). The LSE acknowledged the NSE as an overseas stock

exchange, a move that significantly bolstered its reputation and credibility within the global financial landscape (Munga, 1974).

The Nairobi Stock Exchange was officially established in 1954 as a voluntary association of stockbrokers under the Societies Act (NSE, 1997). By this time, the number of stockbrokers had increased to six, with two operating as dedicated specialists, while the others engaged in stockbroking as a supplementary activity alongside their primary business operations (Parkinson, 1984). This expansion marked the beginning of a more structured and organized securities market in Kenya, laying the foundation for its future growth and development.

Under the Rules and Regulations of the Nairobi Stock Exchange (NSE) established in 1954, any individual, firm, or limited liability company engaged in brokerage activities could be recognized as a member, provided their application received approval from the NSE Committee. According to Ngugi (2003), the securities traded on the NSE between 1954 and 1963 primarily consisted of government stocks, loan stocks, preferential shares, and common shares. Data from yearbooks of that period indicate that loan stocks were significantly less popular compared to common and preferential shares. For instance, in 1954, only two companies issued loan stocks worth Kshs 7.48 million, whereas 28 companies floated preferential shares amounting to Kshs 90 million. Government stock issuances were primarily conducted through the London Stock Exchange (LSE). The overall value of stocks experienced substantial growth, increasing from Kshs 84.88 million in 1953 to Kshs 95.5 million in 1954, following the listing of 12 new public sector stocks. By 1959, the total value had surged further to Kshs 295.5 million. Notably, at the inception of the NSE, only 5.4% of government stocks were listed locally, with the remainder still traded on the LSE.

Following Kenya's independence, the government implemented the Kenyanisation policy, aimed at transferring economic and social control to Kenyan citizens. The primary objective was to ensure that the majority of businesses were owned and operated by locals, except in cases where foreign involvement provided an overriding national benefit. This policy facilitated the transfer of existing enterprises to Kenyan ownership and encouraged the establishment of new businesses controlled by Kenyan citizens. Foreign investors were permitted to retain majority stakes in companies only if domestic capital was insufficient or if their involvement brought essential benefits such as advanced technology and specialized skills.

The government enforced this transition through trade licensing regulations, which included publishing lists of businesses owned by non-Kenyans that were earmarked for sale to local investors within a specified timeframe. To support this transition, financial assistance in the form of government-backed loans was extended to Kenyans willing to acquire these businesses. Consequently, the implementation of the Kenyanisation policy led to a notable shift in ownership structures, with a growing number of businesses transitioning from foreign control to local ownership (Ibid). This period also marked the government's initial efforts to regulate the stock market, culminating in the establishment of the Capital regulatory framework.

The Capital Issue Committee (CIC) was established in 1971, driven by concerns arising from the Kenyanisation process and the behavior of foreign investors. The Development Plan (1969/70) highlighted that foreign companies, after selling shares to local investors, frequently sought permission to transfer the proceeds abroad. Despite recognizing that the capital market played a minimal role in economic development during the early 1970s—characterized by underdeveloped financial institutions and an inactive stock exchange—the government did not implement major reforms until the

1990s. The push for revitalization was largely influenced by a study conducted by the International Finance Corporation (IFC) and the Central Bank of Kenya (CBK) in 1984, which provided key recommendations that served as a blueprint for market reforms. The government's commitment to these reforms was later reinforced in Sessional Paper No. 1 of 1986 (GoK, 1986), which laid out a strategy to develop and expand both the money and capital markets.

Key recommendations from the reform process emphasized broadening financial instruments in the money market and eliminating taxation disparities between debt and equity financing to encourage sectoral diversity. Additionally, the need for an independent regulatory body was proposed, with the mandate to establish rules that would enhance market efficiency and ensure fair trading practices. As part of these broader capital market reforms, the government implemented a statutory regulatory framework aimed at improving oversight and strengthening financial infrastructure.

This led to the creation of the Capital Markets Authority (CMA) in 1990 through the enactment of the Capital Markets Authority Act (Cap 485A). Further developments in market infrastructure followed with the incorporation of the Central Depository and Settlement Corporation Limited (CDSC) under the Companies Act (Cap 486) on March 23, 1999. The final step in modernizing securities trading came when the Central Depository System (CDS) Act was passed by Parliament and received Presidential assent on August 18, 2000, officially enabling the implementation of the CDS, which streamlined the electronic settlement of securities transactions.

2.3 Theoretical Review

The theories guiding the study were discussed in this section. These theories efficient market hypothesis and dividend signaling hypothesis

2.3.1 Efficient market hypothesis

According to the efficient market hypothesis (EMH), markets operate rationally, with stock prices fully reflecting all available and relevant information. Securities prices quickly adjust to new information as soon as it becomes accessible to the market. The concept of the efficient market hypothesis was first introduced by Louis Bachelier, a French mathematician (Courtault & Kabanov, 2000), who pioneered quantitative modeling of stock price movements. Bachelier established the principle that a speculator's expected return is zero, implying that market movements are essentially unpredictable. This principle suggests that asset prices are valued based on a martingale measure, meaning that future price movements are independent of past movements, with no predictable trends (Courtault & Kabanov, 2000).

Building on this idea, Fama (1970) further defined the efficient market hypothesis as a market in which numerous rational, profit-maximizing individuals actively compete with one another, each attempting to predict the future market values of individual securities. In such a market, all relevant information is freely accessible to investors. According to EMH, the price of a security in an efficient market should always reflect its fundamental value, which is determined based on the available information. As such, any new information should be immediately incorporated into the security's price, leaving no opportunity for investors to consistently achieve returns that exceed the market average.

The following conditions are sufficient, but not necessary, for a market to be efficient: first, all information is available at no cost to all market participants; second, there are no transaction costs for trading the asset; and third, the influence of information on present and future prices and dividends is agreed upon by all market participants. Because the conditions for a perfect market do not exist in a real capital market, market

efficiency arose from the concept of perfect competition, security prices may not fully reflect all relevant information. As a result, Fama emphasized the importance of defining the word "completely reflect information" in the EMH in terms of the expected return from owning an asset. He also emphasized the need of defining significant information in the EMH, as well as the process of defining it; he categorized the market into three categories: weak form, semi-strong form, and strong form. Each is concerned with a distinct level of cumulative data. The efficient market hypothesis, in its weakest form, asserts that all prior share prices have already been included into asset pricing. As a result, basing investment ideas on historical returns will not yield any more profits (Malkiel, 2011). This means that technical analysis, which looks at how returns have formed in the past, is ineffective for forecasting the future. To test for the weak form of market efficiency, researchers typically engage in historical data analysis using statistical and econometric methods. This analysis often includes technical analysis, which involves studying historical price and volume patterns, as well as evaluating the impact of financial metrics such as market value/earnings ratios (P/E) and book-equity-to-market-equity ratios on historical data. By doing so, researchers assess whether past price movements can predict future stock prices, as suggested by the weak form of the efficient market hypothesis (EMH).

In contrast, the semi-strong form of EMH posits that security prices adjust rapidly to reflect all publicly available information. This includes not only all historical market data, which is incorporated in the weak form hypothesis, but also current non-market data such as earnings reports, dividend announcements, financial ratios, stock splits, and even economic and political news (Reilly & Brown, 2002). According to the semi-strong form, share prices should fully reflect this wide range of publicly available information, making it impossible for investors to achieve abnormal returns by trading

on such data, as the market quickly assimilates and adjusts to new information. According to Pike and Neale (2006), only current and historical information has a certain effect on price, hence semi-strong-form tests are the best for determining capital market efficiency. In a well-functioning market, there should be no influence prior to the release of dividends, nor in the days after the announcement of payouts (Vernimmen and Quiry, 2014). A stock's price should react quickly to pertinent new information.

Strong forms combine weak and semi-strong forms, resulting in the highest level of market efficiency, with share prices reflecting all publicly and privately held information. Based on the underlying future cash flows, the market price completely represents the share's "true" or intrinsic worth (Arnold, 2008; Reilly and Brown, 2002). The implication is that no investor can generate extraordinary rates of return utilizing publicly held information in a superior manner over a reasonable amount of time.

To determine whether past asset price patterns are repeatable and thus potentially predictable for technical analysts, Kendall (1953) utilized actuarial indexes of industrial stock prices from 1893 to 1934. By conducting a statistical evaluation of 22 economic series, he aimed to analyze the time-series behavior of stock prices. The test results revealed that stock prices are unpredictable, as the serial correlations within the selected series were weak and there were no statistically significant correlations between them. This finding supports the notion that past price movements cannot reliably predict future ones.

Mathematical proof supporting Kendall's (1953) findings was later provided by Samuelson (1965) and Yalcin (2016), based on asset price stochastic modeling. Samuelson (1965) emphasized that in competitive markets, for every buyer, there is a seller. He explained that if there were a certainty that a price would rise, it would have

already risen. Samuelson's argument aligns with the random walk behavior of asset prices presented by Kendall, suggesting that asset prices rapidly incorporate new information due to the competitive nature of market participants.

Fama (1970) further reinforced the efficient market hypothesis (EMH) by presenting substantial evidence in support of it in the context of the US stock market. In a broader assessment of efficient market research, Fama found overwhelming evidence that stock prices follow the principles of EMH. However, Fama and French (1988) found evidence that contradicted the random walk hypothesis when examining stock returns in mature capital markets. Lo and MacKinlay (1988) also proposed a specification test to evaluate the random walk characteristics of asset prices. According to the random walk theory, as explained by the efficient market hypothesis (EMH), stock prices are fundamentally random, leaving no opportunities for profitable stock market speculation based on historical price patterns or market information.

In mathematical terms, the series is considered to follow a random walk if;

$$y_t = y_{t-1} + u_t \text{ equation 2.1}$$

Equation (2.1) shows the value of y at time t is equal to its value at time $(t-1)$ plus a random shock. Re-writing equation (2.1) we get;

$$Y_1 = Y_0 + u_1 \text{ equation 2.2}$$

$$Y_2 = Y_1 + u_2 = Y_0 + u_1 + u_2 \text{ equation 2.3}$$

$$Y_3 = Y_2 + u_3 = Y_0 + u_1 + u_2 + u_3 \text{ equation 2.4}$$

If the process started at time (0) with a value of Y_0 , we have;

$$Y_t = Y_0 + \sum u_t \text{ equaton 2.5}$$

Therefore $E(Y_t) = E(Y_0 + \sum u_t) = Y_0$, and showing the new trend, we get;

$$\text{Var}(Y_t) = t\sigma^2 \text{ equation 2.6}$$

However, while the mean of Y_t remains equal to its initial or starting value, which is constant, the variance of Y_t increases indefinitely as t increases. This characteristic violates a key condition of stationarity, which requires that the mean, variance, and autocovariance of a time series remain constant over time.

In the case of a random walk, as time progresses, the variance becomes unbounded, meaning that the fluctuations in Y_t grow larger as time moves forward. This dynamic makes the time series non-stationary, as the increasing variance implies that the data does not exhibit a consistent statistical structure over time. The violation of stationarity is important because it suggests that the process underlying the time series does not have a stable mean or variance, which in turn affects the predictability and the ability to model future behavior based on historical data. Thus, a random walk, despite its mean being constant, does not satisfy the requirements for stationarity due to the ever-increasing variance.

The following procedures, however, were employed to measure the stock market's efficiency: unit root test and variance ratio test.

If a time series is non-stationary in its level form but becomes stationary after an initial differencing, it is said to have a unit root (Nwosa & Oseni, 2011). While the presence of a unit root is a critical prerequisite for supporting the random walk hypothesis, it alone is not sufficient to confirm a random walk. For a time series to truly follow a random walk, the return series must also be serially uncorrelated or serially independent, meaning that past values do not predict future values (Rahman & Saadi, 2008).

Traditional tests for random walks, such as serial correlation tests and unit root tests, may be prone to errors due to spurious autocorrelation. This is especially true in stock markets of developing economies, where non-synchronous trading can introduce biases into the data (Füss, 2005). Non-synchronous trading occurs when not all securities are traded at the same time, leading to price discrepancies and artificial correlations that can distort the test results.

To address these challenges, Lo and MacKinlay (1988) proposed an alternative method based on variance ratio estimators to test for random walk behavior. Their test is particularly useful in situations where stock returns are not normally distributed, which is often the case in real-world financial markets. This approach helps mitigate the problems posed by non-synchronous trading and offers a more reliable method for determining whether stock prices follow a random walk, providing a more accurate reflection of asset price movements in the context of such market conditions.

2.3.2 Dividend Signalling Hypothesis

According to the signaling theory of dividends, dividend payments serve as a potential mechanism for conveying information about a company's future prospects. The concept of dividend signaling, first introduced by Miller and Modigliani (1961), suggests that if a firm's management bases its dividend distribution decisions on expectations of future earnings, then changes in dividend payouts will provide the market with insights into the company's future profitability. In essence, an increase in dividends signals management's confidence in sustained earnings growth, while a decrease may indicate concerns about future financial performance.

Allen and Michaely (2003) further expand on this theory by explaining that dividends act as an ex-ante indicator of future cash flows. This means that dividend

announcements can serve as a predictive tool, helping investors gauge the financial health of a firm before actual earnings reports are released. Additionally, dividends provide valuable information about a company's earnings by offering a clear representation of how funds are generated and allocated within the business (Akbar & Baig, 2010). By analyzing dividend policies and their fluctuations, market participants can infer important details about a firm's expected financial trajectory, reinforcing the role of dividends as a key informational tool in financial markets. A company's top management has access to more information about the company's strategy and can estimate future earnings. As a result, corporate insiders have more information than other investors and the market as a whole, creating an information asymmetry problem. As a result, a company might utilize dividends as a signaling tool to transmit information to market investors or shareholders. The information may reflect the firm's short- and long-term strategies. The dividend-information signaling hypothesis has three primary implications that have been widely examined in empirical research. First, unexpected changes in dividend payments should be accompanied by corresponding fluctuations in stock prices. This suggests that when firms announce unexpected dividend increases, share prices tend to rise, while unexpected dividend cuts often lead to stock price declines. Second, shifts in dividend payouts should align with changes in earnings, meaning that an increase in dividends should correspond to rising earnings, while a decrease should reflect declining profitability. Lastly, unanticipated adjustments in dividend payments should lead to changes in the market's expectations regarding future earnings, with investors interpreting higher dividends as a signal of stronger future financial performance and lower dividends as an indication of potential earnings challenges.

Miller and Rock (1985) argue that while dividends do serve as a signaling tool, there are associated costs specifically, the firm's investment decisions. When a company increases its dividend payout, it may be diverting funds from potential investment opportunities, which could impact its long-term growth. Empirical research has consistently supported the notion that dividends provide the market with valuable information regarding future earnings potential (Griffin, 1976). However, while firms may attempt to communicate financial stability and growth prospects through dividend policies, dividend fluctuations may not always serve as the most reliable indicator of future performance.

Suwanto (2012) suggests that dividend signals can be ambiguous unless the market can clearly differentiate between firms that are genuinely expanding and those that are merely distributing excess cash due to a lack of viable investment opportunities. This indicates that while dividend announcements influence investor perceptions, they should be analyzed alongside other financial indicators for a more comprehensive assessment of a firm's future prospects.

Academic research has questioned the assumption that unexpected shifts in dividend payments always lead to corresponding stock price movements. Multiple studies indicate that stock price reactions to dividend changes are neither uniform nor always aligned with the expectations set by the signaling hypothesis. For example, Grullon et al. (2002) conducted an extensive study covering a wide range of firms that experienced at least a 10% fluctuation in their dividend payouts between 1967 and 1993. Their analysis revealed that the market's abnormal return in response to a dividend increase was, on average, 1.34%, whereas a dividend reduction led to an average abnormal return of -3.71%.

These findings suggest that while dividend announcements may contain some level of informational value, they do not always trigger proportional stock price adjustments. The relatively small abnormal returns imply that other influential factors (such as investor sentiment, macroeconomic trends, and company-specific fundamentals) also play a pivotal role in determining share price behavior. Additionally, this evidence raises concerns about the reliability of dividend modifications as an indicator of future earnings performance. It suggests that while investors consider dividend adjustments in their valuation models, they do not solely rely on them. Instead, they assess dividend movements within the broader context of a company's financial standing, long-term growth prospects, and prevailing market conditions before making investment decisions.

Furthermore, Asquith and Mullins (1983), as well as Healy and Palepu (1988), conducted research on extreme dividend policy changes. They highlighted that the average excess return on dividend initiations was 3.4 percent, whereas the average excess return on omissions was -7 percent. Based on these findings, (Allen and Michaely, 2003) concluded that there appeared to be widespread agreement among researchers: To begin with, dividend changes are linked to changes in stock prices of the same sign in the days leading up to the announcement of the dividend adjustment; Second, the magnitude of the payout affects the immediate price reaction and lastly, For both increases and decreases in dividends, the price reaction is not symmetric. Announcements of per-share reductions have a greater influence on stock prices than announcements of rises.

2.3.3 Dynamic Gordon Growth Model

The predicted returns are non-constant over time, according to research findings from more current asset pricing models. The dynamic Gordon model was developed in

response to the discovery that dividends are non-stationary (Campbell and Shiller 1988). However, there is strong statistical evidence that stock price volatility is excessively high when compared to dividend volatility in the typical efficient market model (Shiller 2013). If stock price fluctuations eventually align with dividend variability over an extended period, it suggests that the random walk model may overstate the degree of uncertainty in long-term price predictions. The implication is that while short-term stock price movements appear erratic and unpredictable, over a longer horizon, they exhibit a tendency to revert to fundamental values determined by dividends. The stock price at time point t is defined by formula according to the dynamic Gordon model;

$$P_t = (1 + G) D_t / (R - G) \text{ equation 2.7}$$

Where D_t is the dividend, R is the discount factor, and G is the predicted dividend growth rate. Gordon's growth model assumes that the predicted dividend growth rate G and the discount factor R remain constant throughout time. The dividend price ratio D_t / P_t is constant as a result of the Gordon growth model. (Campbell and Shiller 1988) established the dynamic Gordon model, which allows for time-varying projected stock returns and dividend growth rates. The dividend-price ratio is approximated using a log linear model.

$$d_t - p_t = c + E_t + \sum_j^{\infty} -\rho^j [-\Delta d_{t+1+j} + r_{t+1+j}] \text{ equation 2.8}$$

Where; r_t is log return, c is a constant and $\rho = 1 / (1 + \exp(E(d - \rho)))$, which presumes that; $P = (\lim_{j \rightarrow \infty} \rho^j P_{t+3} = 0) = 1 \text{ equation 2.9}$

The log dividend–price ratio is stationary if the log difference of dividend Δd_t and return r_t is stationary, hence log dividend and log price are cointegrated under these conditions, according to equation (I). This link appears to be relevant in long-horizon modeling, implying that;

$$\lim_{j \rightarrow \infty} [Var_t(P_{t+j} - P_t) / Var_t(d_{t+j} - d_t)] = 1 \text{ equation 2.10}$$

As a result, the long-term volatility of the stock price reverts to the dividend volatility. A low log dividend – price ratio, according to equation (2.10), indicates that either log dividends will grow quickly or returns will be poor in the future. As a result, the efficient market theory's simplified version based on the constant discount factor implies that future returns are unpredictable.

The results of a study conducted by (Campbell 2014) argue that the log dividend-price ratio has only a limited ability to estimate dividend increases over a one- or ten-year timeframe. In contrast, the log dividend-price ratio does not have predictive power for one-year log price growth. However, the dividend-price ratio shows a significant positive relationship with the subsequent ten-year price growth.

2.4 Empirical Literature Review

The section provides the empirical literatures that have studied the relationship between share prices and dividend payout.

2.4.1 The Relationship dividend payout and price of shares

Long-run research on the relationship between dividends and stock prices in stock markets is contentious since it challenges market efficiency (Wright 2000). The differentiation between stationary and non-stationary time series data serves as an essential indicator of the financial properties and behavioral tendencies of stock market

data. This distinction is particularly significant when conducting cointegration analysis and error correction modeling, as it helps determine whether long-term equilibrium relationships exist within financial markets. In their study covering stock market movements across 17 countries, Harasty and Roulet (2000) applied the Engle-Granger two-step approach to examine these relationships. Their findings demonstrated the effectiveness of this method by presenting both in-sample and out-of-sample tests, evaluating the model's capacity to forecast future stock returns. The results indicate that the error correction model holds predictive power, suggesting its potential application in guiding investment strategies and making informed financial decisions.

Stock prices are mostly driven by the deferred worth of future dividends, according to the present value concept, which derive their worth from predicted future earnings (Cochrane 2009). Conventional integration and cointegration approaches appear to be ineffective because they presume a unit root as the null hypothesis and a linear process as the alternative hypothesis. Nevertheless, this issue cannot be ignored, as recent studies have highlighted significant shortcomings in traditional unit root tests. These methods not only fall short in incorporating data from multiple firms but also struggle to effectively assess information from distinct companies. In contrast, near-unit-root but stationary alternatives, while less efficient in estimation, also exhibit reduced statistical power. This raises serious concerns about the validity of previous findings that relied on the assumption of a unit root in stock prices and dividends. As a result, the robustness of past conclusions requires further scrutiny, emphasizing the necessity for more refined approaches that can better capture the complexities of financial data across different firms.

Previous empirical studies looked on whether rational bubbles emerge in various stock markets, this revealed a significant portion of the ongoing argument over Nairobi stock

exchange price behavior. This observation has led to an important question: if stock prices are truly driven by fundamental factors. The debate surrounding this issue stems from the inconsistencies in traditional econometric tests and the unpredictable nature of stock price movements.

Huang, You, and Lin (2009) conducted an insightful study on the relationship between dividend payout ratios and subsequent earnings growth among companies listed on the Taiwanese stock exchange. The study utilized data obtained from the Taiwan Economic Journal over a five-year period and applied ordinary least squares (OLS) regression analysis. Their findings revealed a strong correlation between high dividend payout ratios and increased earnings growth. Specifically, for the dual-dividend sample, they found that firms with higher dividend payout ratios experienced better future earnings growth. Moreover, the study highlighted that these high dividend payout ratios were also associated with strong future returns, underlining the significance of dividend payout as a signal of future financial performance.

Chen, Huang, and Cheng (2009) conducted research on the impact of cash dividends on share prices in China, focusing on the period from 2000 to 2004. The study concluded that cash dividends had a significantly positive effect on stock prices. Specifically, when cash dividends increased, stock prices also rose, while a decrease in cash dividends led to a decline in share prices.

In a similar vein, Ali and Chowdhury (2010) analyzed the price movement of private commercial banks listed on the Dhaka Stock Exchange in response to dividend announcements. Their sample included 25 banks, and their findings revealed that 11 banks experienced a decrease in stock prices, 6 banks saw an increase in stock prices,

and 8 banks' stock prices remained unchanged following dividend declarations. Overall, their study suggested an insignificant relationship between stock prices and dividends.

Similarly, Akbar and Baig (2010) examined a sample of 79 companies listed on the Karachi Stock Exchange over the period from 2004 to 2007, to study the effect of dividend announcements on stock prices. The results of their research showed that cash dividend announcements had a positive effect on stock prices. Furthermore, Nazir, Nawaz, Anwar, and Ahmed (2010) investigated the influence of dividend policy on stock prices. Their findings indicated that dividend payout and dividend yield had a significant impact on stock prices, whereas size and leverage showed a negative and insignificant effect. On the other hand, earnings and growth were found to have a positive and significant effect on stock prices.

Khan, Aamir, Qayyum, Nasir, and Khan (2011) examined the effect of cash dividend payments on stock prices, using a sample of 55 companies listed on the Karachi Stock Exchange. The results of their study showed a positive relationship between dividend yield, earnings per share, return on equity, and profit after tax with stock prices. However, the retention ratio exhibited a negative relationship with stock prices. Similarly, Hussainey, Mgbame, and Chijoke (2011) explored the impact of dividend policy on stock prices. Their findings indicated a positive relationship between dividend yield and stock price changes, while a negative relationship was observed between the dividend payout ratio and stock price changes. Additionally, their study pointed out that firm earnings, growth rate, debt levels, and firm size also influence stock price changes in the United Kingdom.

Khan (2012) investigated the impact of dividend announcements on stock prices in a different study that concentrated on Pakistan's chemical and pharmaceutical sectors.

Using panel data, the study examined the correlation among stock prices and dividends while adjusting for return on equity, earnings per share, and retention ratio. According to the study, cash dividends, the retention ratio, and return on equity all significantly increased stock market prices, which helped to explain why the stock prices of Pakistani firms in the chemical and pharmaceutical industries varied. However, there was a negative and negligible correlation between stock prices and earnings per share and stock dividends.

Similarly, Murekefu and Ouma (2013) explored the relationship between dividend payout and firm performance among companies listed on the Nairobi Securities Exchange (NSE) in Kenya. Their research employed correlation analysis to examine the connection between dividend payout and financial performance, focusing on the fifty-eight companies listed on the NSE. The study used secondary data sourced from the financial reports of forty-one selected companies. The regression analysis results demonstrated a strong and positive relationship between dividend payouts and firm performance, further supporting the idea that dividend policies can provide valuable signals regarding a company's financial health and prospects.

In a different context, Ajanthan (2013) examined the relationship between dividend payout and profitability among listed hotels and restaurant companies in Sri Lanka. The study utilized correlation analysis to explore this relationship, using data from sixteen companies listed on the Colombo Stock Exchange. The findings indicated that a strong and positive relationship exists between dividend payout and firm performance, emphasizing that companies in the hospitality sector can benefit from a solid dividend policy that reflects their profitability and overall financial stability.

Khan (2012) focused on the effect of dividend announcements on stock prices within the chemical and pharmaceutical sectors in Pakistan. This study, which analyzed a sample of twenty-five companies listed on the KSE-100 Index over a period from 2001 to 2010, used panel data techniques such as the Fixed and Random Effects Models. The results revealed that cash dividends, retention ratio, and return on equity all had a significant positive relationship with stock market prices. These factors were found to explain variations in stock prices in the chemical and pharmaceutical sectors. Interestingly, earnings per share and stock dividends were found to have a negative, but statistically insignificant, relationship with stock prices. Additionally, the study concluded that the dividend irrelevance theory did not apply to the chemical and pharmaceutical industry in Pakistan, indicating that dividends do indeed play a crucial role in stock price determination within this sector.

Ling, Mutalip, Shahrin, and Othman (2008) examined the characteristics of dividend-paying companies in Malaysia. Their study revealed that companies that pay dividends tend to be more profitable, less risky, and more mature than non-dividend-paying companies. The researchers found that Malaysian companies' managers are aware of the importance of paying dividends and often choose to distribute dividends even when the company is not currently generating profits. In these cases, dividends are paid out of retained earnings, demonstrating the firms' commitment to maintaining a consistent dividend policy regardless of short-term earnings performance.

Lastly, Ho (2002) utilized a panel data approach and fixed-effects regression model to study the relationship between dividend policy and various company characteristics in Australia and Japan. His research showed a positive relationship between dividend policy and firm size in Australia, as well as a positive link between dividend policy and liquidity in Japan. Interestingly, the study revealed a negative relationship between

dividend policy and risk in the case of Japanese firms, indicating that companies with lower risk are more likely to have stable dividend policies. Overall, Ho's study highlighted the significant industrial effects in both countries, further supporting the notion that dividend policy is influenced by various factors, including company size, liquidity, and risk.

Olatundun (2009) conducted a study using a modified model to examine whether the Nigerian stock market responds efficiently to announced dividend changes, as reflected in stock price adjustments. The research analyzed data from all firms across various sectors that either maintained, increased, or decreased dividend payments, as recorded at the Lagos Branch of the Nigerian Stock Exchange. The study also considered dividend initiations, omissions, and stock dividends over the period 1991 to 1999. To assess the market reaction, event time periods were structured into multiple event windows of 3, 9, 21, and 60 days.

The findings of the study indicated that companies distributing dividends experienced a positive and statistically significant impact on cumulative excess returns (CERs) within 30 days after the dividend announcement. Conversely, firms that chose to omit dividends saw a significant negative effect on CERs over the same period. Additionally, subsample analyses revealed that CERs around the event window were statistically significant, further reinforcing the conclusion that stock prices did, in fact, respond to dividend announcements. Ultimately, the study challenged the notion of semi-strong market efficiency in Nigeria, demonstrating that share prices adjusted in response to dividend-related news, suggesting that investors could potentially capitalize on publicly available information regarding dividend declarations.

Uddin & Chaudhary (2003) conducted a study examining the effect of dividend announcements on stock prices in the Dhaka Stock Market. Their findings revealed that dividend declarations had no significant impact on stock prices or market returns. The study analyzed a sample of 137 firms that had declared and paid dividends for the financial year ending September 2002. The results indicated that dividend announcements did not generate any statistically significant abnormal returns, suggesting that stock prices in the Dhaka market did not react to dividend-related news.

Similarly, Vojtech (2013) investigated the relationship between information asymmetry and dividend policy in the United States. The study suggested that dividends serve as a mechanism to restrict managerial discretion, ultimately leading to greater transparency in earnings disclosures. Vojtech further argued that a strongly aligned board of directors, acting in the best interests of shareholders, enhances the effectiveness of dividend commitments.

In a separate study, Kiio (2006) examined companies listed on the Nairobi Securities Exchange (NSE) to assess how announced cash dividends influenced stock returns and the speed at which stock prices incorporated new dividend information. The study focused on firms within the NSE 20 Share Index, covering the period January 2000 to December 2004, with data sourced from the NSE 20 database. The event window was 21 days, consisting of 10 days before and 10 days after the dividend announcement, along with the announcement date itself. The study's results, based on adjusted market buy-and-hold returns, showed that cumulative market-adjusted returns were statistically significant during the event window, particularly for firms issuing dividends. This finding suggested that stock prices reacted to cash dividend announcements, yet the observed inefficiencies indicated that the Nairobi Securities Exchange did not exhibit semi-strong form efficiency.

Kihara (2011) conducted a study on companies listed on the Nairobi Securities Exchange (NSE) that had announced dividends between 2006 and 2010. The primary objective was to examine the relationship between stock returns and dividend announcements, specifically investigating whether dividend declarations led to any abnormal returns. The study used an observation window spanning 15 days before and 15 days after the announcement date. Data analysis was carried out through regression techniques, utilizing SPSS, Excel, and Access for statistical computations. The findings indicated no significant evidence suggesting that stock prices at the NSE reacted uniformly to dividend announcements. This implied that stock returns did not efficiently absorb dividend-related information, reinforcing the conclusion that the NSE

3.2 Study Area

The research was carried out on the Nairobi Securities Exchange, which is the primary stock exchange in East Africa, located in Nairobi the capital of Kenya and is currently a public limited liability company. Which facilitates the trading of securities, and enables firms to raise equity capital to fund growth requirements. The average number of shares listed today is 864,676,000, representing more than a 30-fold increase from the average value during the 1990s. Additionally, the average capital raised by companies through listings has grown five times over the same period (NSE, 2016). The Nairobi stock exchange holds the position as the largest in the East African community.

3.3 Target Population

A researcher's target population is the group of persons he or she wishes to study (Glencoe, 2004). As per 2020, Nairobi securities exchange (NSE) has 65 listed companies both in MIMS and AIMS and distributed as follows: commercial & services sector; ten (10), agricultural sector; seven (7), investment sector; five (5); manufacturing and allied; ten (10), telecommunication and technology; one (1); real estate investment trust; one (1); investment services; one (1); insurance; six (6); energy and petroleum; five (5); construction and allied; five (5); banking; eleven (11); automobile and accessories; three (3). The study purposely chose those companies that had been consistently trading for the study period from 2013-2023. The reason for this was to eliminate the problem of missing data. Taking all the companies in the stock exchange and filling the missing data by means violated the precision and completeness principle.

3.4 Inclusion Criteria and Exclusion Criteria

The inclusion criteria for this study focused on companies listed on the Nairobi Securities Exchange that had consistently traded throughout the entire study period,

from 2010 to 2020. Initially, there were 65 firms listed on the exchange, but the research ultimately selected 52 firms that met the inclusion and exclusion criteria. The final sample was chosen in two stages: First, companies were required to have complete stock price and dividend data for the period from 2013 to 2023. Second, only firms that had not been delisted or suspended during the study period were included in the final sample.

3.5 Data Collection Instruments

The data employed was totally secondary in nature, and it was gathered from the sampled companies' annual reports and accounts, as well as numerous financial statement publishes at the Nairobi stock exchange. This research utilized the annual secondary panel data from the period of 2013-2023. Data was obtained from each of these variables. The data of the independent variable was collected from the documentary analysis guide. The financial statements are filed with CMA as one of the compliance requirements on all NSE listed companies. Document guide analysis was used to collect secondary data for each firm from the CMA annual reports files and financial statements i.e. income statements, cash flow statements, financial ratios, balance sheets and all other relevant data for firms listed at NSE.

3.6 Data Collection Methods

The annual stock prices for the companies included in the NSE 20 Share Index from 2013 to 2023 were sourced from the historical statistics database of the Nairobi Securities Exchange (NSE). The use of the NSE 20 Share Index was crucial for this research as it serves as a price-weighted index, making it suitable for measuring returns. Additionally, the index is representative of all firms listed on the NSE, as it includes companies from various sectors within the exchange.

3.7 Variable Description and Measurement of Variables

3.7.1 Measurement of Dividend Payout

A dividend represents the distribution of a company's profit to its shareholders based on the number of shares they own. When a company chooses to distribute dividends, it reduces its available profit, but the alternative (retaining profits for reinvestment in business development) can bolster internal funding sources. While not distributing dividends can improve internal capital, it may also reduce shareholder welfare. Generally, shareholders prefer a consistent dividend distribution (Okpara, 2010; Zulkifli et al., 2017). Dividends are considered optimal when the current payout aligns with future growth expectations, thus maximizing the company's stock price (Brigham and Houston, 2011, p. 198).

Dividend policy is typically measured using the Dividend Payout Ratio (DPR), which reflects the percentage of profits distributed to shareholders as cash dividends. A higher DPR indicates a larger dividend distribution, potentially driving up the share price. However, this might weaken the company's internal funding since retained profits will be lower. Conversely, a lower DPR reduces dividend payouts, which could be disadvantageous for shareholders, though it strengthens internal funding (Harianja et al., 2013; Purwanti & Sawitri, 2011; Yudea, 2017). In this study, the dividend payout is measured as the proportion of a company's profits allocated to shareholders.

3.7.2 Measurement of Share Prices

A company's stock value is known as its share price, while the total value of a publicly traded company is referred to as its market capitalization. This is determined by summing the value of all shares in circulation. According to the present value concept, share prices are mainly influenced by the present value of anticipated future dividends, which in turn are based on expected future earnings (Cochrane, 2009). The share price

represents the current price of a stock or security. In an efficient market, the stock price serves as a reflection of a company's value and performance (Sloan, 2012). Investors rely on stock prices as a key indicator when making investment decisions (Gill et al., 2012). Share prices are subject to fluctuations, which is typically seen as a positive aspect. For the purpose of this study, share price is measured by the profits or losses that shareholders experience as a result of holding a company's shares.

3.8 Data Analysis

The study utilized both descriptive and inferential statistics for the analysis. As explained by Zikmund (2000) and Sekaran (2000), descriptive statistics involve the process of transforming raw data into a comprehensible format, making it easier to interpret and understand the variables at play. On the other hand, inferential statistics focus on identifying cause-and-effect relationships between variables. To examine the long-term and short-term relationships between share prices and dividends, the study employed cointegration techniques. Additionally, the panel Vector Error Correction Model (VECM) was applied to analyze the non-stationary relationships of the variables over both the short and long term. The analysis was conducted using STATA 14.0 software.

3.9 Panel Unit Root Tests

Regressing one time series variable on another can lead to misleading results, often producing a very high R^2 even though the variables don't actually exhibit a significant relationship. This occurs when the variables are non-stationary, leading to spurious results. In cases where a vector y_t is integrated of order d (denoted as $y_t \sim I(d)$), the variables in y_t need to be differenced d times to achieve stationarity. If a series has a stochastic trend, this implies that the variable does not revert to its mean or long-run value after a shock and its distribution lacks a constant

mean and variance. To assess stationarity, the study utilized the tests developed by Dickey and Fuller (1981) and Phillips and Perron (1988). If the probabilities for both tests are less than 0.5 after the first differencing, the variables are considered stationary. Additionally, to determine the stationarity of an autoregressive (AR) process, an AR(1) model was used for further analysis.

$$y_t = \delta + \theta y_{t-1} + \varepsilon \quad \text{equation 3.1}$$

With, $\theta = 1$ this is a first order autoregressive process with unit root $\theta = 1$ also referred to as a random walk. The null hypothesis is to test $\delta = 0$ and $\theta = 1$ jointly or test only that $\theta = 1$. In the context of time series analysis, when using the t-statistic to test for unit roots, standard tables may sometimes lead to an excessive rejection of the null hypothesis of a unit root. To address this issue, the model can be extended to test for a deterministic time trend instead of a unit root. This adjustment is useful when the non-stationarity observed in the data is due to a deterministic time trend, rather than the presence of a unit root, which would otherwise cause the series to exhibit random walk behavior. AR (1) is extended to;

$$y_t = \delta + \theta y_{t-1} + r^t + \varepsilon \quad \text{equation 3.2}$$

With $|\theta| < 1$ and $\gamma \neq 0$. In this case, it had a non-stationary process because of the linear trend. To address non-stationarity, the method involves regressing y_t against a constant time variable t and then analyzing the residuals from this regression. This approach helps to remove the non-stationarity. To test whether y_t follows a random walk or if it follows a trend stationary process, the following regression (Equation 3.2) is typically run:

$$\Delta y_t = \delta + (\theta - 1)y_{t-1} + \gamma t + \varepsilon \quad \text{equation 3.3}$$

The null hypothesis is that the process is a random walk rather than trend stationary. It is given as $H_0: \delta = \gamma = \theta - 1 = 0$. If the null hypothesis is rejected, it indicates that y_t is a stationary time series with a deterministic trend (Baltagi and Song, 2006). In this case, the time series does not follow a random walk but rather exhibits a stable long-term trend, implying that the series is trend-stationary. This equation will be employed in the study to test for stationarity and to determine whether the time series in question follows a deterministic trend or if it is non-stationary with a unit root.

3.9.1 Levin-Lin-Chu Test for unit Root

$$\Delta y_{it} = \delta y_{it-1} + \sum_{L=1}^{p_i} \theta_{iL} \Delta y_{it-L} + d_{mi} d_{mt} + \varepsilon_{it} \text{ equation 3.4}$$

LLC model follows a three-step procedure;

Step 1: For each individual i , first need to implement the ADF regression.

Where $M=1,2,3$, d_{mt} indicates the vector of deterministic variables such as intercepts and time trends and d_{mi} denotes the corresponding vector of coefficients for model $M=1,2,3$. In particular, $d_{1t} = \theta$ (the empty set), $d_{2t} = (1)$ and $d_{3t} = (1, t)$. Hence, LLC test includes fixed effects and individual time trends for each firm and it allows the lag order, p_i , be different for individual cross-section units. The null hypothesis of LLC test is that each individual time series contains a unit root against the alternative that each time series is stationary i.e., $H_0 = \rho = 0$ and $H_1: \rho < 0$.

Step 2: Requires estimating the ratio of long – run innovation standard deviation for each individual.

3.9.2 Im-Pesaran-Shin Test

It allows for the heterogeneous coefficient of y_{it-1} and proposes an alternative testing procedure based on averaging individual unit root test statistics. The null hypothesis is that each series in the panel contains a unit root i.e $H_0: \rho_i = 0$ for all i and the alternative

hypothesis allows for some (but not all) of the individual series to have unit roots i.e

$$H_1 \begin{cases} \rho_1 < 0 \text{ for } i = 1, 2, \dots, N \\ \rho_1 = 0 \text{ for } i = N_1 + 1 \dots N \end{cases}$$

IPS (Im, Pesaran, and Shin) test differs from the LLC (Levin, Lin, and Chu) test in terms of their assumptions about stationarity. In the LLC test, the alternative hypothesis assumes that all the series are stationary processes, meaning that every cross-sectional unit in the panel is expected to be stationary.

3.9.3 Breitung's Test

Breitung (2000) examines the local power of LLC and IPS tests, highlighting that these tests suffer from a significant loss of power when individual-specific trends are included. This loss of power is attributed to the bias correction mechanism, which also removes the mean under a sequence of local alternatives. To address this issue, Breitung proposes a test statistic that does not involve any bias adjustment, significantly improving the power of the test compared to LLC or IPS, as demonstrated through Monte Carlo simulations.

In Breitung's (2000) methodology, the test statistic without bias is derived through the following steps:

Step 1: This step mirrors the process used in LLC, where residuals are first obtained. These residuals are then adjusted to correct for individual-specific variance, much like the LLC procedure.

Step 2: The residuals are then transformed using the forward orthogonalization transformation, as suggested by Arellas and Boven (1995). This transformation ensures that the residuals are appropriately adjusted, improving the accuracy of the test and increasing its power.

3.10 Cointegration

Share price must be cointegrated with dividend based on the present value model. According to (Wang, 2008) the present value of an asset is its all future income discounted.

$$V_t = \sum_{t=1}^{\infty} \frac{1}{(1+r_t) \dots (1+r_t)} E_t I_{t+1} \text{ equation 3.5}$$

Where V_t is the present value of the asset, I_{t+1} is income derived from possessing the asset in period $((t, t+1]$, E_t is the expectations operator, and r_t is the discount rate in period $((t, t+1]$. When the discount rate is constant, the present value of the asset becomes;

$$V_t = \sum_{t=1}^{\infty} \frac{1}{(1+r)^t} E_t I_{t+\tau} \text{ equation 3.6}$$

Subtracting $V_t / (1+r) = V_t / (1+r)$ from both sides leads to;

$$V_t - \frac{V_t}{1+r} = \sum_{\tau=1}^{\infty} \frac{1}{(1+r)^\tau} E_t I_{t+\tau} - \sum_{\tau=1}^{\infty} \frac{1}{(1+r)^\tau} E_t I_{t+\tau-1} + \frac{I_t}{1+r} \text{ equation 3.7}$$

Rearranging equation (3.7);

$$V_t - \frac{I_t}{r} = \frac{1+r}{r} \sum_{\tau=1}^{\infty} \frac{1}{(1+r)^\tau} E_t \Delta \text{ equation 3.8}$$

From this equation, if V_t and I_{t+1} or $I(1)$ series, then a linear combination of them is stationary too and the two series are cointegrated. Campbell and Shiller (1987) defined $(V_t - I_t) / r$ as spread. The spread links a stock variable, V_t to a flow variable I_t . If income remains constant over time, the total value of an asset can be determined by dividing the current income flow by the rate at which it is generated. The spread, in this context, represents the difference between the expected changes in future income streams and the rate at which they are discounted. A positive spread suggests that future

incomes are expected to grow, leading to an increase in the asset's value. Conversely, a negative spread indicates a decline in future income, which typically results in a decrease in the asset's value. For panel data, the study adopted a modification of the (Johansen 1995) likelihood cointegration test modified by (Larsson, Lyhagen *et al.*, 2001)

$$y_t = \mu + A_1 Y_{t-1} + \dots A_p Y_{t-p} + \varepsilon_t \text{ equation 3.9}$$

Where y_t is a 2-dimension vector of variables which are assumed to be $I(1)$ series, $A_{i,r} = I$, p is the coefficient matrix and ε_t is a 2-dimension vector of residuals.

Subtracting Y_{t-1} from both sides of equation (3.9);

$$\Delta Y_t = \mu + \Pi y_{t-1} + \Gamma_1 \Delta y_{t-1} + \dots \Gamma_{p-1} \Delta y_{t-p+1} + \varepsilon_t \text{ equation 3.10}$$

Where,

$$\Pi = \sum_{i=1}^p A_{i-1} \text{ equation 3.11}$$

It is clear from this equation that only one term in the equation, Πy_{t-1} is in levels, cointegration relations depend crucially on the property of matrix Π . It was observable that Πy_{t-1} must be either $I(0)$ or zero, except that y_t was already stationary.

The research utilized the Schwarz Information Criterion (SIC) and Akaike Information Criterion (AIC) to determine the optimal lag order, particularly due to the financial nature of the variables involved. AIC is used to assess the goodness of fit and in-sample performance by evaluating how closely the estimated variable matches its actual value within the sample. It also helped in determining the appropriate lag length for the analysis. On the other hand, SIC is employed to compare the forecasting performance

of the model, whether in-sample or out-of-sample, to determine the best-fitting model for the data.

3.11 Panel Cointegration Tests

3.11.1 Westerlund and Edgerton (2007) LM Bootstrap Test

This test accounted for autocorrelation differences across different sections, while assuming the variance-covariance matrix as omega. In cases where cross-sectional independence existed, the bootstrap method was applied. For situations where cross-sectional independence was not present, the test followed the approach outlined by McCoskey and Kao (1998). Unlike the Westerlund error correction test, this test specifically examined cointegration under the null hypothesis.

3.11.2 Kao's Test

Kao's test is based on the following model:

$$y_{it} = \alpha_i + \beta X_{it} + e_{it} \text{ equation 3.12}$$

Where $i=1 \dots N$ and $t=1 \dots T$, α_i denoted individual intercepts, β is the common slope across i , e_{it} is error term and both y_{it} and X_{it} contain a unit root. Kao test is designed to find whether y_{it} and X_{it} are cointegrated.

3.11.3 Pedroni tests

Pedroni introduced a test for panel cointegration that accommodates group-mean intercepts and trend coefficients across different cross-sections. Consider the following model;

$$y_{it} = \alpha + X_{it}\beta_i + \delta_i + \varepsilon_{it} \text{ equation 3.13}$$

For $t = 1, 2, \dots, N$ (in our case N =Firms) where y_{it} were individual cross-sectional time series and X_{it} was a vector of the cross-sectional time series, the panels of N time

series were assumed to be integrated of order one eg.1(I). Parameter α represented the overall constant in the model, parameters δ_i were individual effects which may be set to zero if desired, the parameter vector β_i contains cross-section specific regression parameters, ε_{it} are the error terms.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Overview

The first step was to compute descriptive statistics and correlation analysis, plots of each univariate properties, unit root test and inferential statistics.

4.1 Descriptive Statistics

Table 4.1 presents the summary statistics of variables in the study for the period 2013-2023. Since all the data were for all variables, it was concluded that the data was strongly balanced. It was necessary to calculate descriptive statistics in order to have understanding of the variables and remove outliers in the sample. The results presented in table 4.1 the average stock price among companies was 203.2535 Kenya shillings. It is also evident that stock price had a minimum of 1 Kenya Shilling and maximum of 398 Kenya Shillings.

Table 4. 1: Descriptive Statistics

Variables	Obs	Mean	Std. Dev	Min	Max
Prices	572	203.2535	112.4417	1	398
Dividend	572	133.3357	111.2442	1	398

Notes: Obs denotes the number of observations, Std. Dev denotes the standard deviation, min is minimum and Max ix maximum

Source: Compilation from STATA 12.0 Outputs, 2023

Dividends registered an average of 133.3357, a minimum of 1 and a maximum 398. In terms of standard deviation prices indicated the highest standard deviation of 112.4417 which is a strong indication that prices are highly volatile in NSE. Dividends indicated a standard deviation of 111.2442.

4.2 Correlation Analysis

Correlation analysis was done to determine the direction and magnitude of the relationship between variables (Granger *et al.*, 2001). Pair wise correlation was estimated for prices and dividends of the firms. Table 4.2 presents the Pearson correlation coefficient for each variable, along with the corresponding significance value and the sample size in the dataset.

Table 4. 2: Correlation Analysis

Variables	Prices	Dividend
Prices	1.0000	
Dividends	-0.0729*	1.0000

Note: * denote significance at 5 percent level.

Source: Compilation from STATA 12.0 Output, 2023

Table 4.2 presents correlation matrix of prices and dividends. It is shown from the correlation matrix that correlation between one and itself is one. Stock prices and dividends registered a weak and negative correlation of 0.0729.

4.3 Plot of Variables at levels

The next step of the analysis was to plot the variables. This was done to show the nature of the data generation process. The variables can be either exhibit trending, random walk with drift, or random walk without drift and trend or purely random walk process. The graphs in appendix 1 shows that there was random walk process among the variables.

4.4 Panel Unit Root Tests

Having established the nature of the data generation process, unit root tests were done to test the stationarity of data. If non-stationary data are regressed then it will give rise to spurious regression (Gujarati, 2013). Levin-Lin-Chu unit root Test, Im-Pesaran-Shin Panel unit root test and Breitung unit roots were applied. Each of the tests were

performed on each of the individual time series and results are presented in Tables 4.3 and 4.4. It was necessary to perform all the three for robustness.

4.4.1 Levin-Lin-Chu Unit Root Test

Table 4.3 displays the results of the Levin-Lin-Chu panel unit root test. This test evaluates the null hypothesis of the presence of a unit root (indicating a common unit root process) across all panels, against the alternative hypothesis of no unit root (indicating no common unit root process) across the panels. Prices indicated a (p – value $0.0000 < 0.05$) which rejects the null hypothesis of unit root and accepts otherwise and thus stationary at levels.

Table 4. 3: Results of Levin-Lin –Chu Panel Unit Root Test

Variables	t-Statistic			Remarks
	Unadjusted t	Adjusted t*	p-value	
Prices	-12.7155	-6.1483	0.0000	<i>I(0)</i>
dividends	-12.7068	255.9015	1.0000	<i>Unit root</i>
First Difference				
prices	-23.3690	-12.5038	0.0000	
dividends	-12.7068	759.1547	0.0000	

Source: Author's Survey Data, 2023

The dividends variable was found to contain a unit root at levels, as the p-value of 1.0000 is greater than the 0.05 significance level, which means the null hypothesis could not be rejected. However, after taking the first difference, the Levin-Lin-Chu test showed that prices remained stationary with a p-value of 0.0000 (less than 0.05), and dividends also achieved stationarity with a p-value of 0.0000 (less than 0.05). Consequently, it was concluded that both dividends and prices are integrated of order one, denoted as $I(1)$.

4.4.2 Im-Pesaran-Shin Panel Unit Root Test

The Im-Pesaran-Shin test was applied to assess the presence of unit roots. The null hypothesis of this test asserts that all panels exhibit a unit root (individual unit root process), while the alternative hypothesis suggests that some panels may be stationary. The findings, as displayed in Table 4.4, demonstrated that the variables were stationary both at their original levels and after differencing. Although dividends and prices initially appeared to be $I(0)$, they were differenced because time series techniques typically require variables to have the same order of integration (Greene, 2012; Enders, 2005; Hamilton, 1994; Lutkepohl, 2005). Other research has also indicated that financial time series variables tend to be integrated of order one (Alexander, 2014).

Table 4. 4: Results of Im-Pesaran-Shin Panel Unit Root Test

Variable	Statistic	Probability	Remarks
Levels			
Dividends	1.96	0.05	Stationary
Prices	-4.6822	0.0000	Stationary
First Difference			
Dividends	1.96	0.05	Stationary
Prices	-9.9476	0.0000	Stationary

Source: Author's Survey Data, 2023

4.4.3 Breitung Panel Unit Root Test

To confirm the reliability of the panel unit root test results, the Breitung panel data unit root test was also conducted, with the outcomes shown in Table 4.5. The null hypothesis of the Breitung test posits that the panels contain a unit root, while the alternative hypothesis suggests that the panels are stationary.

The results showed that prices have no unit root at levels (p – value $0.0000 < 0.05$) which reject the null hypothesis of unit root within panels. Dividends were found to

contain unit root at level ($p - \text{value } 1.0000 < 0.05$) which failed to reject null hypothesis of presence of unit root.

Table 4. 5: Results of Breitung Panel Unit Root Test

Variable	Statistic	Probability	Remarks
Levels			
Prices	-2.6831	0.0036	Stationary
Dividends	4.8172	1.0000	Presence of unit root
First Difference			
Prices	-6.4775	0.0000	Stationary
Dividends	-15.6538	0.0000	Stationary

Source: Author's Survey Data, 2023

On first difference prices ($p - \text{value } 0.0000 < 0.05$) and dividends ($p - \text{value } 0.0000 < 0.05$) were found to have no unit root and therefore, it was firmly concluded that dividends and prices are integrated of order denoted as $I(1)$ one when Breitung panel unit root test is applied.

4.5 Cointegration Tests

The variables were tested for unit root and were found to be integrated of order one $I(1)$. Therefore, when variable are $I(1)$ it is desirable to test for cointegration. To achieve this Westerlund (2007) cointegration test and Pedroni tests were used to test for cointegration. Results are presented in the following sections.

4.5.1 Westerlund Cointegration Test

The Westerlund cointegration test, developed by Westerlund (2007), along with the LM Bootstrap panel cointegration test introduced by Westerlund and Edgerton (2007), was utilized to assess cointegration. The Westerlund test applies the Akaike Information Criterion to determine the optimal lag and lead lengths for each series, using the Bartlett

kernel window width. These two tests are suitable for both cases of cross-sectional dependence and independence. Additionally, they accommodate heterogeneity among the units in the panel. This test was applied because of its robustness as compared to Pedroni (1995; 1997; 1999) and Kao (1999). The results output is presented in table 4.6 below.

Results for H0: no cointegration

With 52 series and 1 covariate

Table 4. 6: Results of Westerlund Test for Cointegration

Statistic	Value	Z-value	P-value
Gt	-3.670	-18.673	0.0000
Ga	-9.463	-8.974	0.0000
Pt	-29.530	-22.146	0.0000
Pa	-11.333	-25.670	0.0000

The null hypothesis (H0) for the cointegration test is that there is no cointegration. The lag and lead lengths are automatically determined using the Akaike Information Criterion (AIC), and the Bartlett-Kernel window width is set according to the formula $4(T/100)^{2/9} \approx 3$. The robust p-value is employed to account for cross-sectional dependence, and the bootstrap method with 800 replications is used. The test is conducted using the "xtwest" command in Stata, as developed by Persyn and Westerlund (2008).

Source: Authors' Compilation from STATA Output, 2023

From table 4.6 it can be seen from the p-values for all the models (p-value 0.0000 < 0.05) the income the null hypothesis of no cointegration can be rejected in favor of the alternative hypothesis of cointegration among variables hence no stationarity and equilibrium relationship among the variables. Therefore, it was concluded that there is cointegration between prices and dividends.

4.5.2 Pedroni and Kao Panel Cointegration Test

When variables are integrated, it is essential to conduct a cointegration test to determine the long-run relationship between them. To ensure robustness, the study used the Pedroni (1999) and Kao (1999) tests. The Pedroni cointegration test was conducted

under various conditions: with deterministic intercept and trend, without deterministic intercept or trend, and without a deterministic trend. To achieve convergence, the Newey-West automatic bandwidth selection and the Bartlett kernel were applied.

Table 4. 7: Results of Pedroni Test for Cointegration

Pedroni cointegration test		
Regressors: 1		
No. of panel units : 52		
No. of observations : 572 Avg obs per unit: 11		
Test Statistics	Panel	Group
v	0.7061	.
rho	-7.515	-3.541
t	-20.9	-26.02
adf	-17.26	-18.94

Note: All test statistics are distributed $N(0, 1)$, under a null of no cointegration, and diverge to negative infinity (save for panel v).

Source: Authors' Compilation from STATA Output, 2023

Pedroni's cointegration test offers seven test statistics under the null hypothesis of no cointegration in a heterogeneous panel, particularly suited for medium to large sample sizes (N) and time periods (T), with one or more nonstationary regressors. The statistics include panel-v, o, group-rho, panel-t (non-parametric), group-t (non-parametric), panel-ADF (parametric t), and group-ADF (parametric t). These statistics are normalized and follow a $N(0,1)$ distribution. All statistics, except panel-v, diverge to negative infinity as the p-value approaches zero. Additionally, the test computes Pedroni's group mean Panel Dynamic Ordinary Least Squares (DOLS) estimates. This technique extends the Dynamic OLS method for estimating the cointegrating vector in a single equation to panel time series data (medium to large N, large T). Dynamic OLS enhances the model by including lags and leads of the regressors to address feedback effects and endogeneity. In Panel Dynamic OLS, a DOLS regression is performed for each individual unit, and the results are aggregated for the entire panel using Pedroni's

group mean approach. The test assesses the null hypothesis of no cointegration against the alternative hypothesis of cointegration. Results presented in table 4.5 showed that majority of them were significant ($p < 0.05$). It was concluded that there is cointegration when no deterministic trend is specified.

4.6 Regression Analysis and Test of Hypotheses

After confirming the presence of a cointegration relationship, the next step is to estimate the model using Panel Estimated Generalized Least Squares (EGLS) with cross-section random effects. The EGLS method is particularly effective when dealing with issues such as heteroskedasticity or autocorrelation. This approach generally yields more reliable results with higher significance. The regression was performed using the Swamy-Arora estimator for component variances, along with White's cross-section standard errors and covariance, which were adjusted for corrected degrees of freedom and trend specification. This ensures that the model accounts for potential irregularities in the data and provides more accurate estimations. Results are presented in table 4.8. The estimates from vector autoregression are obtained from each of the variable from multivariate regression on lags of itself.

Table 4. 8: Model Estimation

						No. of obs = 572
						No. of panels = 52
						Ave.no. of T = 7.109
	Coefficient	Std. Err.	z	P> z	[95% Conf. Interval]	
Dividends						
Dividends(L1)	0.0238	0.2561	0.09	0.926	-0.4783	0.5259
Prices(L1)	1.1883	0.3614	3.29	0.001	0.4799	1.8967
Prices						
Dividends (L1)	0.0879	0.1375	0.64	0.523	-0.1816	0.3575
Prices(L1)	0.3245	0.1196	2.71	0.007	0.0900	0.5591

Instruments: l (1/1). (Dividends prices)

Source: Authors' Compilation from STATA Output, 2023

The first hypothesis of the study sought to establish the short-term effects of dividends on share prices. Results indicated that the first lag of share prices is significant at 5 percent level of significance ($p\text{-value } 0.001 < 0.05$). It recorded a coefficient of 1.1883 which shows that a unit increase in the first lag of s causes an approximately 1.18 unit increase in dividends of the current year. This positive association between dividends and share price can be explained by the fact that some investors reward firms in form of cash.

Share prices can influence dividend payouts, but it's important to understand that dividends are primarily determined by a company's financial performance and its dividend policy, rather than directly by share prices. However, share prices can indirectly affect dividend payouts. As share prices rise, assuming the dividend amount remains constant, the dividend payout decreases. Conversely, when share prices fall, the dividend payout increases. Changes in dividend payout can influence investor perception of the attractiveness of a stock for income-seeking investors.

Share prices reflect market sentiment and investor expectations about a company's future performance. If a company's share price is high and investors have high expectations for future growth and profitability, the company may be under pressure to maintain or even increase dividend payouts to meet those expectations. Conversely, a falling share price may lead to concerns about the company's ability to generate sufficient cash flow to sustain dividends. Significant changes in share prices, such as a sharp increase or decrease, can trigger market reactions and investor sentiment shifts. A substantial increase in share price may lead to short-term profit-taking, while a significant decline may raise concerns among shareholders. These reactions can indirectly influence dividend policy decisions.

High share prices can impact a company's capital allocation decisions. If a company's share price is perceived as overvalued by management, they may choose to allocate capital to share buybacks or internal investments instead of increasing dividend payouts. Share buybacks can help support the share price by reducing the number of shares outstanding. Share prices are influenced by overall market conditions, economic factors, and industry trends. In a bullish market, companies may feel more inclined to increase dividends as a way to attract investors seeking income. Conversely, during a bearish market, companies may become more cautious with dividend payments.

Shareholders, particularly institutional investors, may exert pressure on a company's management and board of directors to either increase or maintain dividend payments when share prices are high. Investors often expect a return on their investment, and a high share price may lead to expectations of dividend rewards. Companies that have a history of stable or steadily increasing dividends may aim to maintain that reputation, which can be reflected in their share price. A strong dividend track record can attract and retain long-term investors. It's important to note that while share prices can influence dividend policies and investor sentiment, dividend decisions are ultimately made by the company's board of directors, taking into account factors such as earnings, cash flow, financial obligations, growth opportunities, and the company's overall financial health. Share prices are just one of many considerations in the complex process of determining dividend payouts.

This aligns with economic theory, which highlights the crucial role of dividends in influencing stock prices. As dividends affect stock prices, they directly impact a firm's earnings, ultimately leading to an increase in earnings per share (EPS). This can also be explained by the fact that increased dividends imply an increase in stock prices which can be re-invested in the company thus a positive relationship. These findings agree with

previous studies by (Matthew, Enekwe, & Anyanwaokoro, 2014), (Sharif, Adnan, & Jan, 2015). However, these results contradict Asghar (2011) Hussainey (2011) Khan (2012) Adnan, Jan and Sharif (2015), Jakata and Nyamugure (2012), (Kibet, Jagongo, & Ndede, 2016) and Ndung'u (2016) who reported positive and significant effect of dividends on stock prices.

These findings contradict the findings of Hussainey, Mgbame and Chijoke-Mbbame who found a negative relationship between dividend payout and stock prices in the case of firms in the United Kingdom and Masum (2014). Other studies that disclosed negative effect of dividends on stock prices include Shah and Noreen (2016). First lag of prices was found to be inconclusive. The first objective of this stated that dividends do not have a statistically short term effect on share prices in the short run. This implies the first objective is rejected and it concluded that dividends has a long term effect on share prices

The study sought to establish short-term effects of share prices on dividends of firms listed on NSE and results are presented in table 4.8. Results indicated the first lag of prices had a significant of 0.3245 ($p - \text{value } 0.007 < 0.1$). This shows that when share prices changes by one unit dividends is likely to increase by 0.3245 units.

The study investigated the long-term relationship between dividends and share prices of companies listed on the NSE. The findings, presented in Table 4.9, reveal a negative and statistically significant long-term relationship between dividends and share prices of these firms. The error correction term is negative indicating that when share price deviates from its long-term path dividends adjusts to correct the disequilibrium by - 5.45E-09 units

Table 4. 9: Panel Vector Error Correction Estimates

Cointegrating Eq:	CointEq1	
PRICE(-1)	1.000000	
DIVIDENDS(-1)	-5.45E-09 (1.5E-10) [-36.7113]	
Constant	451.0056	
Error Correction:	D(PRICE)	D(DIVIDENDS)
CointEq1	-8.67E-05 (0.00150) [-0.05764]	-5.34E+08 (1.5E+07) [-36.7032]
D(PRICE(-1))	-0.149125 (0.03841) [-3.88198]	9.62E+08 (3.7E+08) [2.58805]
D(PRICE(-2))	-0.058600 (0.04185) [-1.40028]	1.25E+09 (4.0E+08) [3.09855]
D(DIVIDENDS(-1))	-1.71E-12 (1.1E-11) [-0.15474]	-3.770721 (0.10704) [-35.2267]
D(DIVIDENDS(-2))	-1.29E-12 (8.0E-12) [-0.16174]	-2.212243 (0.07742) [-28.5760]
Constant	6.207193 (2.18177) [2.84503]	2.68E+11 (2.1E+10) [12.6833]
R-squared	0.225400	0.722763
Adj. R-squared	0.155780	0.720788
Sum sq. resids	2077626.	1.95E+26
S.E. equation	54.40204	5.26E+11
F-statistic	3.237530	366.0252
Log likelihood	-3831.048	-20110.05
Akaike AIC	10.83912	56.82500
Schwarz SC	10.87778	56.86367
Mean dependent	4.855099	5.49E+10
S.D. dependent	54.83078	9.96E+11

Source: Author's Survey Data, 2023

The study examined the long-run relationship between price of shares and dividends of firms listed in NSE. Results are reported in table 4.10 indicating that there is negative

and significant long-run relationship between dividend and price of shares of firms listed on NSE. The error correction term is negative indicating that when dividends deviate from its long-term path, share prices adjust to correct the disequilibrium by -1.83E+08 units. These results challenge the conclusions of Hussainey et al. (2011) and Asghar, Shah, Hamid, and Suleman (2011), who suggested a positive relationship between dividend policy and share price volatility. Conversely, the findings align with the studies by Allen and Rachim (1996), Nazir, Nawaz, Anwar, and Ahmad (2010), and Shah and Noreen (2016), which indicated that dividend policy negatively influences share price volatility.

Table 4. 10: Long Run Relationship

Cointegrating Eq:	CointEq1	
DIVIDENDS(-1)	1.000000	
PRICE(-1)	-1.83E+08	
	(7.3E+07)	
	[-2.51713]	
C	-8.27E+10	
Error Correction:	D(DIVIDENDS)	D(PRICE)
CointEq1	2.911434	4.73E-13
	(0.07932)	(8.2E-12)
	[36.7032]	[0.05764]
D(DIVIDENDS(-1))	-3.770721	-1.71E-12
	(0.10704)	(1.1E-11)
	[-35.2267]	[-0.15474]
D(DIVIDENDS(-2))	-2.212243	-1.29E-12
	(0.07742)	(8.0E-12)
	[-28.5760]	[-0.16174]
D(PRICE(-1))	9.62E+08	-0.149125
	(3.7E+08)	(0.03841)
	[2.58805]	[-3.88198]
D(PRICE(-2))	1.25E+09	-0.058600
	(4.0E+08)	(0.04185)
	[3.09855]	[-1.40028]
Constant	2.68E+11	6.207193
	(2.1E+10)	(2.18177)
	[12.6833]	[2.84503]
R-squared	0.722763	0.022540
Adj. R-squared	0.720788	0.015578
Sum sq. resids	1.95E+26	2077626.
S.E. equation	5.26E+11	54.40204
F-statistic	366.0252	3.237530
Log likelihood	-20110.05	-3831.048
Akaike AIC	56.82500	10.83912
Schwarz SC	56.86367	10.87778
Mean dependent	5.49E+10	4.855099
S.D. dependent	9.96E+11	54.83078

Source: Author's Survey Data, 2023

Model MGa uses the Pesaran & Smith (1995) MG estimator for both the first and second stages of estimation. In contrast, model MGb estimates the first stage using the FM-OLS technique, followed by the application of the Pesaran & Smith (1995) MG estimator in the second stage. The GMM model, on the other hand, estimates the first stage with FM-OLS and then applies the appropriate method for the second stage.

CHAPTER FIVE

SUMMARY CONCLUSIONS AND RECCOMENDATIONS FOR FURTHER STUDIES

5.1 Overview

This section presents the summary of the key findings from the study. Conclusions and policy recommendations based on the study findings are also presented. The las section of this thesis discuss the limitation and of the study and the possible suggestion for further studies.

5.2 Summary of the Findings

The primary goal of this study was to investigate both the short-run and long-run relationships between share prices and dividends among selected firms listed on the Nairobi Stock Exchange (NSE) for the period from 2010 to 2020. The specific objectives of the study were to: establish the short-term effects of dividends on the share prices of firms listed on the NSE, to establish the short-term effects of share prices on dividends of shares of firms listed on NSE and to examine the long-run relationship between dividend and price of shares of firms listed on NSE.

The study investigated whether share price significantly influences dividend payout among firms listed on the Nairobi Securities Exchange (NSE). The results indicated a positive and statistically significant effect of share price on dividend payout, with a coefficient of $\beta = 1.1883$ and a p-value of 0.001, which is well below the 0.05 significance threshold. This finding led to the rejection of the null hypothesis (H_{01}), confirming that firms with higher stock prices tend to pay higher dividends. This positive relationship suggests that firms use dividends as a strategic tool to maintain investor confidence and signal financial stability. Investors often associate strong share prices with well-performing companies, leading firms to align their dividend policies

with stock market performance. The results imply that in the NSE, dividend payout decisions are influenced by stock price movements, and firms may adopt dividend policies that cater to shareholder expectations in response to rising share prices.

The study further examined the reverse relationship, assessing whether dividend payout has a statistically significant effect on share prices. The findings revealed that in the short run, dividend payout has an insignificant effect on share price, with a coefficient of $\beta = 0.0879$ and a p-value of 0.523, which is greater than the 0.05 threshold. As a result, the study failed to reject the null hypothesis (H_{02}), indicating that changes in dividend payouts do not immediately translate into changes in stock prices on the NSE. This suggests that investors in the Kenyan market may not prioritize dividend announcements as the primary driver of share price movements. Instead, other factors such as company performance, market trends, macroeconomic conditions, and investor sentiment may play a more dominant role in influencing share prices. The findings challenge the traditional dividend relevance theory, which posits that dividend payouts impact stock valuation. They imply that investors in the NSE may be more focused on capital gains and overall market dynamics rather than short-term changes in dividend distributions.

The study assessed whether a long-term equilibrium relationship exists between share price and dividend payout using cointegration analysis. The results confirmed the presence of a significant cointegrating relationship, but this relationship was negative in the long run, with a coefficient of $\beta = -5.45$ and a p-value of 0.000. This led to the rejection of the null hypothesis (H_{03}), confirming that while share prices and dividend payouts move together over time, their long-run relationship is inverse. This means that as firms continue to increase their dividend payouts over an extended period, their stock prices tend to grow at a slower rate or even decline. A possible explanation for this

negative long-term relationship is that firms that allocate a significant portion of their earnings to dividends may have limited funds for reinvestment in growth opportunities, reducing their potential for future expansion and profitability. This finding highlights the trade-off between dividend distribution and capital reinvestment, suggesting that companies must strike a balance between rewarding shareholders and maintaining sustainable business growth. The negative cointegration also implies that investors should consider long-term implications when making investment decisions based on dividend policies.

5.3 Conclusions

This study explored the relationship between dividend payouts and share prices of selected companies listed on the Nairobi Stock Exchange (NSE). The study established that share price has a positive and significant effect on dividend payout among firms listed on the Nairobi Securities Exchange (NSE). This implies that firms with higher share prices tend to distribute more dividends to shareholders, possibly as a signal of financial stability and investor confidence. The significant relationship suggests that companies may adjust their dividend policies in response to stock market performance, reinforcing the relevance of share price movements in dividend decision-making.

Regarding the effect of dividend payout on share price, the study found that in the short run, the relationship is insignificant. This suggests that changes in dividend payout do not immediately influence stock prices in the NSE, indicating that investors may prioritize other market or financial factors when valuing shares. The short-term insignificance challenges traditional dividend relevance theories, implying that investors at the NSE might focus more on capital gains and broader market trends rather than immediate dividend announcements.

Finally, the study confirmed the presence of a cointegrating relationship between share prices and dividend payout, but with a negative long-run relationship. This indicates that while the two variables move together over time, an increase in one is associated with a decrease in the other in the long run. The negative cointegration suggests that firms that maintain high dividend payouts over time may experience slower stock price growth, possibly due to reduced reinvestment in business expansion. These findings contribute to the understanding of dividend policy dynamics and provide critical insights for investors, corporate managers, and policymakers in the Kenyan financial market.

5.4 Recommendations of the Study

5.4.1 Theoretical Implication

The study's findings provide significant insights into the applicability of financial theories in the context of the Nairobi Securities Exchange (NSE). The confirmation that share prices significantly influence dividend payout supports aspects of the Dividend Signaling Hypothesis, which posits that dividends convey information about a firm's future prospects. However, the finding that dividend payout has an insignificant short-term effect on share prices challenges traditional interpretations of the Present Value Model of Stock Prices and Dynamic Gordon Growth Model, which suggest that dividends are a key determinant of stock valuation. The negative long-run cointegration between share price and dividend payout further raises questions about the strict assumptions of the Efficient Market Hypothesis (EMH) in the NSE, suggesting that other market imperfections may be at play. Future research should explore modifications to these theories to better align them with empirical evidence from emerging markets, where investor behavior and market efficiency differ from developed economies.

5.4.2 Policy Implication

The study's findings underscore the need for regulatory bodies such as the Capital Markets Authority (CMA) and Nairobi Securities Exchange (NSE) to enhance investor awareness and market transparency. Given that share price movements significantly influence dividend policies, policymakers should strengthen corporate disclosure requirements to ensure investors have access to relevant and timely information about firms' financial health and strategic decisions. Additionally, since dividend payouts do not immediately impact stock prices, regulatory frameworks should promote diversified investment strategies rather than over-reliance on dividend policies as indicators of firm value. Policymakers should also encourage firms to adopt balanced capital allocation strategies that optimize both dividend payments and reinvestment for sustainable long-term growth.

5.4.3 Practical Implications

For corporate managers, the findings suggest that dividend policies should be aligned with long-term financial strategy rather than short-term stock price movements. Since a positive relationship exists between share prices and dividend payouts, firms should leverage stock performance indicators to guide dividend decisions while ensuring adequate reinvestment in growth opportunities. Investors, on the other hand, should recognize that dividends alone may not be a strong determinant of stock value, particularly in the short run. Portfolio diversification and a broader assessment of firm fundamentals, including earnings growth and market conditions, should be prioritized when making investment decisions. Additionally, since the long-run cointegration between share prices and dividend payouts is negative, firms should avoid excessive dividend payments that may come at the expense of future expansion and innovation.

5.4.4 Suggestions for Further Studies

This study explored the impact of dividend payout on share prices for firms listed on the NSE. While firm-specific variables were chosen for the analysis, they may not represent all factors influencing share prices. It is recommended that future research investigate whether macroeconomic variables also play a role in affecting share prices for firms listed on the NSE. This suggestion arises from the limited explanatory power of the selected independent variables on the change in the dependent variable observed in the study. Additionally, further research could examine the impact of dividend policy on market returns in Kenya. Despite extensive literature on this topic, dividend policy remains a crucial component of corporate finance. This thesis has contributed valuable insights into the effects of dividend payout on share prices in Kenya, offering a significant contribution to the field of corporate finance in the country.

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APPENDIX

Appendix I: Plagiarism Awareness Certificate