EFFECTS OF DIVIDEND ANNOUNCEMENT ON STOCK RETURNS FOR COMMERCIAL BANKS LISTED AT THE NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

It is my declaration that this research project is my own research and effort and that it has never been submitted to any learning institution for the completion of any award. I have acknowledged others' information in scenarios that they have been used.

Date 16 Hovember 2022

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This research has been submitted for examination with my approval as the university supervisor.

15 November 2022 Date -----

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DEDICATION

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LIST OF ABBREVIATIONS AND ACRONYMS

AAR Average Abnormal Returns

AIMS Alternative Investment Market Segment

AR Abnormal Returns

BSE Bombay Stock Exchange

CAAR Cumulative Average Abnormal Returns

CAPM Capital Asset Pricing Model

CAR Cumulative Abnormal Returns

CBK Central Bank of Kenya

DSE Dar es Salaam Stock Exchange

EMH Efficient Market Hypothesis

FISMS Fixed Income Securities Market Segment

GARCH Generalized Autoregressive Conditional Heteroscedasticity

IPO Initial Public Offering

MAAR Market Adjustment Abnormal Returns

MIMS Main Investment Market Segment

NSE Nairobi Securities Exchange

SET Stock Exchange of Thailand

US United States

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ABSTRACT

Although different studies have been conducted to determine the relationship between stock returns and dividend announcement, only limited research has extensively covered the commercial banking sector. Therefore, this study examines whether firms can promote investments by influencing stock returns through dividend announcements as a way to recover from an economic shock. Efficient Market Hypothesis (EMH) emphasizes that the stock prices represent all the applicable information to the investors. Therefore, no abnormal gains are expected after such information is released in the market. This research analyses the 12 listed commercial banks at the Nairobi Securities Exchange for a period of 5 years (2018-2022). Data on dividend announcements is collected together with the actual share and market prices for 15 days before and after the announcement date. Using the CAPM model, the data is analysed through event study methodology to estimate the abnormal returns (AR) and cumulative abnormal returns (CAR). Graphical representations are plotted to depict the trend of AR and CAR each year. AR and CAR are analysed for significance testing through the t-test. The findings indicate that dividend announcements are positively related to the banks stock returns. However, the information is seen to leak in the market a few days before the dividend announcements. Therefore, this research recommends that firm should regularly announce dividends to promote investment in stocks. In addition, the NSE should ensure that commercial banks making dividend announcement do not report abnormal return by providing a smooth and wide flow of information to all market participants.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Dividend decisions are a fundamental component of financial decisions. Firms make dividend decisions to influence stock returns and encourage investments. However, the effect of dividends on stock returns is not straightforward, as policymakers, researchers, and managers still have contradicting opinions. Despite different extensive models, literature, and theories explaining dividend decisions, the issue remains controversial. For instance, while Modigliani-Miller (1961) argued that dividends are irrelevant as they have zero impact on the value of the firm, Gordon (1962) asserted that dividend policy affects the share value even when the cost of capital equates to the rate of return. Therefore, different views on the issue could make firms confused and apprehensive about their dividend decisions, which would significantly affect their efforts to improve stock returns. In this case, this research helps clarify the issues and determine whether firms can utilise dividend decisions to improve the stock value and remain resilient and stable during crises. Our main focus is the financial institutions listed at the NSE market.

Stock returns refer to the percentage change in stock prices (investments) within a period of time. Positive returns equate to a profit, while negative returns represent losses from the investment. Therefore, firms may trigger investments by promising future positive returns on stock to the investors since the investors are profit driven. Fama (1970), in his study on the EMH, assumed a hypothetical market with an efficient flow of information and random, unpredictable price changes (Singh & Yadav, 2021). Fama argued that an investor could not make abnormal profits from investments since the stock prices fully incorporate all the relevant available information within the market.

On the other hand, Kahneman and Tversky, in their study on behavioural economics, observed that the investors would have varying behaviour depending on their environment (Bracutigam & Kenning, 2022). For instance, when they are faced with a profit-making investment decision, they become risk averse, but when they are faced with a loss mitigation decision, they turn out to be more risk takers.

Examining the impact of dividends on stock value is timely and necessary, especially when firms are recovering from the detrimental impact of the coronavirus pandemic, also referred to as COVID-19. During the pandemic, the financial market witnessed a damaging impact following a significant slump in the global stock market. COVID-19's negative impact on the stock market was mostly due to fears spreading across the world about the pandemic and its effect on the global economy. In Kenya, the daily mean of stock returns for commercial banks deteriorated from -0.44 per cent before the declaration of the COVID-19 pandemic to -0.94 per cent after the announcement (Mutungi, 2021). A report by Financial Sector Regulators (2021) indicates that the COVID-19 pandemic raised stock price volatility in NSE, with market capitalisation and share price indices hitting the lowest level since the financial crisis in 2008 (Financial Sector Regulators, 2021). Stock prices declined mainly in the transport, energy, manufacturing, agriculture, banking, and financial sectors (Financial Sector Regulators, 2021). Therefore, the declining stock price and price volatility necessitate the banks in Kenya to look for strategies that would improve stock prices to help improve the firms' value and survive in the competitive market.

1.1.1 Dividend Announcement

Announcements of dividend provides critical information to investors regarding the company's prospects. According to Puspitaningtyas (2019), dividend announcements

involve a policy where the firm's management announces to distribute cash or cash equivalents to its shareholders as a proportion of its profits. Therefore, dividend announcements signal the investors about the firm's prospects since dividend distribution announcement is made when the firm is currently favourable and in liquid conditions to distribute dividends (Puspitaningtyas, 2019). Mustafa et al. (2020) define dividend announcement as a significant tool used to reduce agency issues arising between insiders (management) and outsiders (investors) and help create the financial and economic value of the firm. In this case, dividend announcements are a communication tool between the firm's management and shareholders or investors. In addition, dividend announcements can be viewed as the process where a firm's board of directors provides information about ex-dividend, payment date, and dividend size (Rogers & Evans, 2021). Therefore, dividend announcement is a management tool used to address the uneven flow of information between insiders (management) and the outsiders (investors) of the company to influence stock returns caused by market inefficiency.

Investors analyse dividend announcements and compare the results with their predictions. If the predictions match with the announcements, the impact on stock returns will be positive and vice versa. In some scenarios, Managers use dividends to satisfy their shareholders, especially when there is a low level of transparency (Bhattacharya, 1979). Therefore, examining the market reaction after the dividend announcement is made is prudent, as different investors would respond differently to the announcement (Braeutigam & Kenning, 2022). Some researchers, such as Fama,1970 assumed an informationally efficient market where such announcements would have zero or no impact on the investor's decisions since the stock prices are said to reflect the actual market prices. In contrast, others demonstrated that investors

behave differently based on the decisions to be made (Braeutigam & Kenning, 2022). Therefore, the signals given by the management in the form of dividend announcements would significantly impact the investors' decisions and, in return, affect the stock returns.

Various research has been done to examine the behaviour of stock prices before and after the date of dividend announcement. Dividend announcement occurs within four stages: declaration date, Ex-dividend date, record date, and payment date. These dates are vital as they assist investors in determining the expected dividends. Similarly, dividends are paid in two forms: interim and final. Interim dividends are distributed to the shareholders before issuing the annual report, while final dividends are distributed after issuing the annual financial report (Robiyanto & Yunitaria, 2022). In conclusion, Dividend announcement is a critical factor affecting the market's stock returns

1.1.2 Stock Returns

Stock returns refer to the proportionate variation in the value of an investment over a period of time. Investors invest in stocks intending to make a profit; however, this is not always the case since the returns are affected by several market factors. Stock returns comprise two components: yield and capital gain or loss. According to Jones (2009), yield is the periodic cash inflows (dividends) that an investor receives from time to time, while capital gain (loss) refers to the security's price change (appreciation or depression) over a period of time. In this case, Stock return is computed as the periodic dividends received plus the capital gains (losses) realised at the end of the period by an investor.

Capital gains are generally affected by the stock prices in the market. These prices vary as companies announce increases, decreases, and no change in dividend payout

(Abdullah et al.,2002). Stock prices are directly correlated with the announcements made by managers and especially in less developed countries. Total stock return is measured as a percentage relating all periodic security cash flows to the security purchase price over a given period (Jones, 2009). In other words, the total return can be computed as the total rate of return expressed as a percentage of the increase/decrease of the stock value (Lavrakas & Schmidt, 2021).

1.1.3 Dividend Announcements and Stock Returns

Different studies have examined the link between dividend announcements and stock returns. For instance, according to Abdullah et al. (2002), managers utilise cash dividend announcements as an indication of the changes in the company's prospects in the study of imperfect markets. Another recent study reveals that stock returns increase due to an increment in stock prices after the dividend announcement (Suwanna, 2012). As a result, these studies indicate that stock returns and dividend announcements are positively related. However, the study by Miller and Modigliani (1961) indicates that dividends have zero or no impact on the firm's value. Similarly, Seyedimany (2019) refutes the dividend-signalling theory by indicating that dividend announcements have insignificant impact on share prices, implying that investors have zero benefits from dividend announcements.

In an efficient market, dividend announcement, which represents information about dividends, might not significantly influence the stock returns. The EMH assumes that all information relevant to stock is available and reflected in the stock prices (Singh & Yadav, 2021). Therefore, dividend announcements may not contribute to any additional information relevant to stocks because the information is already available in the market, and the Stock prices in the market have adjusted to reflect it this information.

In this case, the information provided by the dividend announcement is not beneficial to investors because the available information in an efficient market adds no advantage to anyone; all investors are homogeneous (Singh & Yadav, 2021). Therefore, the contradicting findings on the link between dividend announcements and stock returns necessitate conclusive research within the local context.

1.1.4 Commercial Banks Listed at the Nairobi Securities Exchange

The operations of Kenya Commercial banks are governed and monitored by the Central Bank of Kenya. CBK issued a circular dated 14th August 2020 to all Kenyan Banks to clearly set out regulations protecting Kenyans by managing banks' operations during COVID-19 (Kagwaini et al., 2021). Decisions by CBK are final on the adequacy of the capital amounts maintained by banks. Kenyan banks must keep sufficient capital levels that cover risks they might be exposed to, as determined by the CBK Board's decisions on dividend payments (Kagwaini et al., 2021). Through published financial statements, which are mandatory for all commercial banks, investors and other stakeholders are enabled to determine the financial position of the banks and estimate the dividend payout and the stock returns expected from holding such stocks. For the financial year ended in 2020, CBK reported that the banking sector decreased pre-tax profit from 159.1 billion to 112.9 billion (Kagwaini et al., 2021). However, the banks declared sustainable dividends. For example, Kenya commercial bank declared a dividend of Ksh.1 per share compared to Ksh.3.5 in the previous year. There are 12 commercial banks listed on the NSE.

NSE provides a platform for Kenya commercial banks where public members can trade shares, stocks, bonds, and other stocks from the primary market via an IPO or the secondary market. The 12 listed commercial banks are ABSA, Stanbic Holdings, I&M

group, DTB Bank, HF Group, KCB, National Bank, NCBA, Standard Chartered group, Equity group, Cooperative bank, and the Bank of Kigali. These banks benefit from this listing as they can quickly raise capital from the public through the issue of shares. The top five listed commercial banks in Kenya, according to market capitalisation, are Equity Bank (Ksh.169.8b), Kenya Commercial Bank (Ksh.121.8b), Co-operative Bank (Ksh.70.4b), Absa Bank (Ksh.63.3b), and Standard Chartered Bank (Ksh. 52.2b) (Simply Wall St., 2022). HF Group and Diamond Trust have the least market value of Ksh. 1.2 billion and Ksh. 3.7 billion, respectively (Simply Wall St., 2022).

1.2 Research Problem

For over 300 years, dividend policies have been evolving with the evolution of corporations as business entities. Researchers have conducted empirical and theoretical studies to analyse the connection between dividend announcements and the organisation's stock returns. However, in Kenya particularly, the studies have not been conclusive in explaining the correlation between dividend announcements and stock returns by different sectors of the economy. Investors analyse capital market fluctuations to make decisions regarding their investments. Risk takers observe the capital gains delivered from stock price volatility over a time period. They utilise the information from the company while speculating about their investments. Therefore, investors make decisions in the prime period to buy or sell shares with references to announcements made by the management. (Hariyanto & Murhadi, 2021).

The COVID-19 pandemic affected the stock market negatively as the stock performance declined by 0.203 while the stock price volatility decreased to the lowest level since the financial crisis in 2008 (Financial Sector Regulators, 2021; Orenge, 2020). Currently, NSE is one of the securities markets in East Africa affected by the

exit of foreign investors. Anyanzwa (2022) reveals that NSE and DSE are experiencing declining stock prices since foreign stakeholders are withdrawing their investments in frontier and emerging markets. These sell-offs are accelerated by the rising interests in Europe and the US and the ongoing conflict between Ukraine and Russia. Since 58 per cent of NSE investors are foreigners (Anyanzwa, 2022), there is an increasing demand to influence the stock returns upwards. As a result, research is necessary to determine whether dividend announcements can be used to increase stock prices and help the NSE-listed firms recover from the current crisis.

Local studies have been done to test the association between dividend announcements and stock returns. For instance, Muhoro (2016) observed a significant impact on dividend announcements and stock return volatility, while Ndung'u et al. (2014) observed a negative correlation between dividend announcements and share price volatility. Other researchers such as Owira (2016), Waweru and Otieno (2016) observed a positive effect between dividend announcements and stock returns. Despite these previous studies being carried out, limited research has extensively covered the commercial banking sector. This research is necessary, especially when firms recover from market crises such as COVID-19 and geopolitical tensions. This study examines whether firms can promote investments by influencing stock returns through dividend announcements as a way to recover from an economic shock.

1.3 Research Objective

The overall research goal is to assess the effect of the firm's dividend announcement on the total stock returns within the financial sector, primarily commercial banks listed at NSE.

1.4 Value of the study

This study poses different intrinsic values to the stakeholders interested in defining the link between dividend announcements and the stock price volatility in the market for various firms. The stakeholders involved include investors, managers, scholars, creditors, and financial analysts. The study will assist investors in Kenya in predicting future stock returns and making sound investment decisions. The Kenya firm's management will be able to understand the effect of dividend announcements on stock returns. The study will also increase knowledge in finance, create more room for further studies, and provide opportunities for critics of the existing studies. Creditors and financial analysts can plan and formulate lending policies for various firms and confidently offer investment advice to their clients.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Within this section, the study analyses the various theories on dividend decisions, the determinants of stock returns, the firm's dividend announcements, a review of previous studies carried out by other researchers, and a summary.

2.2 Theoretical Review

Several hypotheses have been developed to analyse the existing link between dividend announcements and a firm's stock returns. For instance, Miller & Modigliani,1961) studied the impact of dividend announcements on stock value and concluded that dividend decisions are irrelevant when making investment decisions as dividends do not affect the stock returns. Gordon (1963) and Lintner (1956) refuted the theory by Miller and Modigliani as they demonstrated that dividend decisions are important when determining the returns from a stock (Suwanna, 2012). The Signalling theory by Spence (1974) illustrates how management can use dividend announcements to influence and promote stock return. Other theories developed within this study are the Tax preference theory and the Residual theory.

2.2.1 Prospect Theory

Prospect theory is a theory in behavioural economics that illustrates how individuals make decisions when they encounter alternatives involving uncertainty, probability, and risk. This theory was first developed in 1979 and thereafter revised in 1992 by Kahneman and Tversky to generalise rank-dependent utility by integrating loss aversion and reference dependence (Bracutigam, & Kenning, 2022). Individuals assess the gain and loss perspectives from a reference point, in which losses carry more weight

than gains because of the associated emotional losses (Braeutigam & Kenning, 2022). Therefore, investors value losses and gains differently, implying perceived gains influence their decisions more than perceived losses, which implies that they are risk averse when making decisions on gains but risk takers when faced with losses.

From the prospect theory perspective, decreasing dividends are viewed as losses because they reduce investors' benefit. The theory helps to understand why a dividend decrease has a larger adverse impact on stock prices than the positive effect of a dividend increase: due to emotional losses experienced from the losses. In addition, the reference-dependence element of the prospect theory explains that investors weigh current dividends against historical dividends (reference point) (Baker & Wurgler, 2012). As a result, dividend announcements signal earning information since investors are risk-averse. However, the prospect theory is based on unproven and unoriginal assertions, and it does not apply to multifaceted real-world decisions, such as high-involvement decisions in consumer behaviours (Rossiter, 2019).

2.2.2 Efficient Market Hypothesis.

The Efficient Market Hypothesis (EMH) was coined by a Nobel Prize winner and Chicago University professor Eugine Fama in 1970. Fama argued that "the price of a financial asset reflects all the available information relevant to its value" (Singh & Yadav, 2021). Therefore, it becomes impossible for an investor to outpace the market since all the available information is reflected by the current share price (Singh & Yadav, 2021). According to EMH, there are three types of market efficiency, weak (only past market information is available), semi-strong (all public information is available), and strong (all public and private information, such as insider information) (Singh & Yadav, 2021). Singh and Yadav, (2021) argue that the availability of all

information indicates that investors have homogeneous expectations concerning risks and returns and have access to all information relevant to stocks. Therefore, the hypothesis indicates that dividends announcement might not affect the stock price in an efficient market because information already exists in the market and is integrated into the stock price.

EMH has faced various critics from behavioural economists and psychologists as they claim that EMH is based on non-factual rules of human behaviour and rationality (Lo, 2007). The anticipated price change needs to be unforecastable in an informationally efficient market. The changes in price must incorporate all the market participants' information and expectations (Lo, 2007). Therefore, the more efficient the market is, the more random the price changes generated in the market. The most efficient market is one in which the price changes are 100 per cent random and unpredictable. Investors are profit-driven and tend to take information asymmetry, such as dividend announcements, to their advantage and create profit opportunities. In conclusion, for price changes to reflect all market information (EMH), all investors must have complete information concerning the stock prices in the market, as it is assumed in an idealised market with costless trading.

2.2.3 Signalling Theory

Michael Spence (1974) and Riley (1975) developed the signalling model that later inspired several scholars to develop the signalling theory that illustrates the firm's behaviour in terms of dividend policy and capital structure (Yabushita, 1983). According to (Taleb, 2019), the firm's shareholders are the insiders while other investors are outsiders of the company; therefore, the insiders have more information than the outsiders, leading to information asymmetry. Outsiders can only get a glimpse

of the firm's nature or strength through the signals emanated from within the firm by the managers. Spence (1974) stated that the dividend payout (or even the mere announcement of it) influences how the stocks of the company move. Dividend announcements signal that the company is doing well, while the absence of the announcement implies that the company's stock returns are about to dwindle in the future. This theory is based on a notion that a strong connection exists between dividends and stock returns, capital gains are exempt from tax, and refinancing has a high penalty. This helps prevent firms from announcing too high dividends to be covered by the firm's cash flows, retained earnings are reinvested, and Shareholders are keen on investing for a single period only.

2.3 Determinants of Stock Returns

The determinants of stock returns involve a range of factors influencing the profits /losses derived from investing in a certain stock over a time period. As a result, investors are concerned about these factors or variables because they help them predict the profit/loss realised from their investments. This implies that these factors are stimulators/inhibitors of the investment in the share market. These factors include but are not limited to dividend announcements, exchange rates, monetary and fiscal policies and market factors such as geopolitical and pandemics. In this study, the researcher analyses how the returns of the Kenyan commercial banks have reacted to the various factors but with a major concern about the dividend announcements.

2.3.1 Dividend Announcements

The effect of dividend announcements on stock returns has been controversial because some scholars refute their impact on stock returns while others indicate a positive correlation. Through the dividend irrelevance theory, Modigliani and Miller (1961,

demonstrate that dividends do not influence stock returns, implying that dividend announcements do not affect stock returns. However, Bustani (2021) used Signalling Theory to indicate that dividend distribution announcements signal the firm's future profitability prospects. Another study conducted in Malaysia between 1996 and 1999 categorises dividend announcements as increase, decrease, and no change (Abdullah et al., 2002). Therefore, investors expect an abnormal return when dividends increase, and vice versa (Abdullah et al., 2002). Nevertheless, dividend announcements that indicate no change have no impact on the stock returns. As a result, this illustrates that announcements of dividend has a significant effect on the stock returns.

2.3.2 Pandemic

The COVID-19 pandemic has become another significant determinant of the stock market. Studies illustrate that the spread of the pandemic has a negative impact on stock returns. For instance, Tan et al. (2022) and Liu et al. (2020) found that the Coronavirus outbreak negatively affected the stock market among G7 countries. However, the impact diminished as the countries employed measures to counter the shock. The stock market is sensitive to news, announcements, political uncertainty, crises, natural disasters, shocks, and natural events associated with COVID-19. For instance, COVID-19 cases and health news negatively affected investors' moods and actions. The COVID-19 pandemic influenced the variation of investors' mood, which "directly affect prices for equilibrium assets and projected returns" (Liu et al., 2020). In addition, Liu et al. (2020) indicate that the higher the volume of media coverage of unexpected events attributed to the pandemic, the higher the number of withdrawals.

2.3.3 Monetary and Fiscal Policies

Policymakers use monetary and fiscal policies to implement an expansionary economic policy that increases economic activities, increasing stock returns. On the one hand, expansionary monetary policy improves the financial condition by lowering borrowing costs and interest rates. Chatziantoniou et al. (2013) argue that monetary policy influences stock market returns through the wealth effect, the monetary channel, the exchange rate channel, the credit channel, and the interest channel. In this case, the expansionary policy positively impacts the stock returns, while the contractionary policy negatively affects the stock returns (Chatziantoniou et al., 2013). On the other hand, fiscal policy from the Keynesian perspective (supporting aggregate demand to stimulate economic activity) improves stock prices. However, it reduces stock prices from the Classical approach due to the crowding out effect (Chatziantoniou et al., 2013). Significantly, the fiscal and monetary policy interaction also influences stock returns (Chatziantoniou et al., 2013).

2.3.4 Exchange Rate

A strong exchange rate positively impacts stock returns and vice versa. When the local currency strengthens against a foreign currency, importing raw materials becomes cheaper, and the prevailing interest rate is reduced. As a result, a strong local currency against foreign currency (e.g. Kenya Shillings versus US Dollar) becomes a positive signal or indicator for investors. For instance, during the hyperinflation in Zimbabwe, the exchange rate and other factors, such as money supply, real income, and inflation, were the main determinants of stock returns (Mumo, 2017). Another study indicates that the exchange rate and stock prices have long-term positive relationships in Tokyo, Singapore, Ghana and Hong Kong markets (Kwofie & Ansah, 2018). However, Mumo

(2017) indicates that the impact of exchange rate volatility on stock returns depends on whether the country is a net exporter or importer. For instance, in Kenya, a net importer country, the exchange rate volatility significantly impacts macroeconomic volatility (Mumo, 2017).

2.4 Empirical Studies

2.4.1 International studies

International empirical studies indicate a positive association between dividend announcements and stock returns. For instance, Abdullah et al. (2002) investigated the impact of dividend announcements and stock returns for 120 listed companies in Malaysia. Using a study event study methodology, the researcher examined 60-day dividend announcements from 1996 to 1999 in the Malaysian capital market to indicate that dividend announcement (increase) is associated with increased stock returns and vice versa. Similarly, Suwanna (2012) indicates a positive relationship between stock returns and dividend announcements. The research focuses on the effect of dividend announcements for 60 firms listed in SET from 2005 to 2010. Using CAR and AR from the market model, the study found an upward movement in stock prices after the dividend announcement (Suwanna, 2012). Therefore, the study supports a positive relationship between dividend announcements and stock returns. In addition, Gunasekarage and Power (2006) examine the effect of dividend announcements on long-term return and financial performance. The research utilises the stock-based market study and the firm's financial ratios to analyse stock returns five years before and five years after the announcement. The results indicate that dividend announcements (increase) have a positive and short-term impact on share returns, while a decrease has a negative impact (Gunasekarage & Power, 2006). Therefore, the research reveals that current dividend announcements might not have a significant longterm impact on share returns.

In addition, Poornima et al. (2019) conducted a study in India to determine the impact of the two variables on the public and private firms listed on the BSE Bankex index BSE. Using panel data, event study methodology and a sample of 38 firms between 2011 and 2015, the research found that private firms have a positive association between dividend announcements and stock returns, while public firms have a negative association (Poornima et al., 2019). Tanveer and Jamil (2019) also conducted a similar study for 91 companies listed on the Pakistan Stock Exchange for 61 days around dividend announcements. The research utilised AAR and CAAR to indicate that dividend announcements are a positive sign of abnormal stock returns (Tanveer & Jamil, 2019). Therefore, the empirical studies indicate that dividend announcements positively impact stock returns except where the announcement is a decrease or no change. In addition, dividend announcements have a negative impact on public firms and no impact over the long term.

2.4.2 Local studies

Local empirical studies also illustrate that dividend announcements significantly impact stock returns. For instance, Muhoro (2016) researched from 2011 to 2015 to investigate how dividend announcements affect stock return volatility for 63 companies listed at NSE. The research found a significant impact on stock return volatility after and before the announcement using the GARCH model, linear regression analysis, and a sample of 29 companies. Ndung'u et al. (2014) also conducted a 5-year study to examine the effect of dividend announcements on share prices for 51 firms listed on the NSE. The study used a sample of 4 firms, CAR and MAAR, to indicate that dividend

announcements negatively affect share price volatility. On the contrary, Owira (2016) indicates that dividend announcements are positively associated with increased stock returns. The study collected data from 2009 to 2013 to explore the role of dividend announcements on stock returns for firms listed at NSE. The research used event study methodology and AR and CAAR analysis to analyse dividend announcements for 64 companies in Kenya (Owira, 2016).

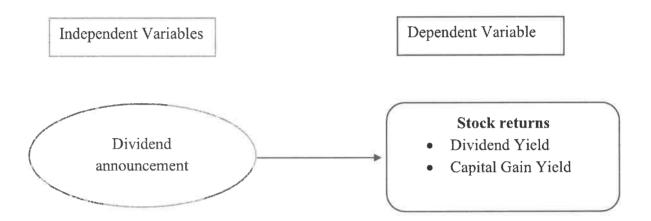
Waweru and Otieno (2016) also conducted research from 2005 to 2012 to examine the impact of cash dividend change announcements on stock returns for listed firms at NSE. The research utilised daily closing prices and 40-day event methodology to indicate a significantly positive link between the announcements and the returns. In other words, the research indicates that announcements of dividend increases positively influence share returns. In contrast, the dividend decrease has a more significant negative impact on returns than the impact of the dividend increase (Waweru & Otieno, 2016). Similarly, Oyuga (2014) collected data from 2009 to 2013 to determine how earning announcements affect the prices of for companies listed at NSE. The study utilised event study methodology and a sample of 19 listed firms at the NSE to indicate that earning announcements are adequately and quickly reflected in share prices and hence have a significant influence on share returns (Oyuga, 2014). Therefore, the local empirical studies have mixed conclusions on how the dividend announcement influences the stock price, which necessitates further research to provide conclusive and updated findings.

2.5 Conceptual Framework

Dividend announcements are seen to have a significant positive relationship with stock returns for listed companies in previous studies. However, this relationship needs to be investigated on its weightage during an economic crisis like the COVID-19 pandemic.

 $Stock\ returns = Dividend\ yield + Capital\ gains$

Figure 2.1: Conceptual Model



2.6 Summary of Literature Review

Various studies have been carried out to illustrate the relationship between dividend announcements and stock returns. Researchers such as Modigliani and Miller (1961) refuted the existence of any relationship between the two variables as their study was conducted on a perfect market with information efficiency, and there were no taxation and floatation costs. The Signalling theory by Spence (1974) illustrates that the mere announcement of dividends significantly positively impacts stock returns. According to Spence (1974), a firm can use dividend announcements to promote stock returns. This is made possible due to information asymmetry between the management and investors (outsiders). Investors assumed that managers who anticipated an increase in

profitability of the firms would signal by dividend announcements. Therefore, dividend declarations were considered a sign of positive performance in the near future, and investors can rely on this information to make investment decisions.

The above literature review has illustrated contradicting conclusions by researchers conducting similar studies in various markets. For instance, Waweru and Otieno (2016) observed a positive relationship between dividend announcements and stock return. However, in their study, Ndung'u et al. (2014) observed that dividend announcements negatively affect share price volatility. Therefore, in this study, the researcher examine the 12 Kenyan listed banks' stock returns behaviour as management makes the dividend announcements. The research was carried out during a period when the country was recovering from a pandemic. This research assists in analysing whether a firm can utilise dividend announcements to promote investments over the long run, especially when recovering from an economic pandemic.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section outlines the methodology employed in conducting the study to meet the set objectives. The methodology starts with the research design, population description and sample, collection of data and analysis.

3.2 Research Design

The research design utilised in this study is the event study methodology. This methodology will assist in exploring the stock returns for various banks around the dividend announcement dates. This research aims at shedding light on the relationship between dividend announcements and stock returns. To effectively describe the association between the two variables, the researcher will need to examine their correlation (Mugenda & Mugenda, 2003). Therefore, the researcher will collect data to establish the relationship between two or more variables. In this case, the variables are dividend announcements and stock return.

3.3 Population

In Kenya, the CBK report 2022 indicates that there are approximately 39 commercial banks. Due to the availability of data, the study is limited to the banks listed at NSE. Therefore, the population of this study comprises the 12 Kenyan commercial banks listed on NSE with an exemption of National Bank, which became a subsidiary of KCB in 2019 and hence its results are reported together with KCB data. Similarly, the Bank of Kigali started trading shares at NSE in 2020 and therefore, the data analysis for the Bank of Kigali is for a period of 3 years. Annual reports are easily accessible and readily available at the NSE. This research assists in making conclusions on the impacts of

dividend announcements on stock returns for commercial banks while recovering from a pandemic in Kenya.

3.4 Data Collection

This study uses secondary data available on NSE. NSE has copies of financial statements for firms listed since the time they got listed. Share prices are obtained from daily price list schedules from NSE Handbook. Final dividends declared and paid by banks are obtained from the management announcements during annual general meetings. Stock returns data is also readily available on NSE, as shares are listed and traded daily.

3.5 Data Analysis

3.5.1 Diagnostic Test

Brown and Warner (1985) described an event study as an empirical financial research technique that allows an observer to determine the behaviour of stock prices after a particular event, such as dividend announcements. This research uses the time study technique to analyse the behaviour of stock prices prior to and post dividend announcement dates in the scenarios of before and after the COVID-19 pandemic. The period of study ranges from 2018-2022. The researcher carries out both the normality and heteroscedasticity test of the data to determine the degree of dependence between variables.

3.5.2 Analytical Model

To effectively analyse the behaviour of Stock prices after dividend announcements, the researcher collects the share prices of the 11 listed banks and observes their price

sensitivity as management makes the dividend announcements for five years (2018-2022). The dividend announcement date is the event date recorded as (t=0). The event period is before and after the banks closed on the announcement date. In this study, the event window is -15 to +15. The research uses the Ordinary Least Square models to analyse the stock price behaviour as firms make dividend announcements. CAPM estimates the expected daily return $E(R_{it})$ for stock i on day t as;

$$E(R_{it}) = \propto + \beta_1 R_{mt} + \varepsilon_{it}$$

Where,

 $E(R_{it})$ refers to the expected daily return for security i as at the end of day t.

 R_{it} refers to the actual daily return on share i as at the end of day t.

 R_{mt} refers to the daily market return on day t.

 \propto and β_1 are the Ordinary Least Squares estimated values from the study period.

Campbell and Mackinley (1997) examined dividend announcements using event study techniques and observed abnormal returns on the stock within the event window. Abnormal returns are estimated as the difference between actual returns and those estimated by the model above.

$$AR_{it} = R_{it} - E(R_{it})$$

The Estimates of the beta coefficient were observed to be biased due to the thin trading problems within an emerging market such as Kenya (Tijjani, 2008). Abnormal returns were computed based on the assumption that the expected return on each bank's shares equals the market return. Therefore, the AR is computed as the daily actual returns less

the daily market return for each share per day. Similarly, every share is expected to have a beta of 1.0 for the event periods of this study (Strong, 1992).

$$AR_{it} = R_{it} - R_{mt}$$

Daily returns are computed using the share prices of the 11 listed banks for the event period of 2018-2022. The natural logs of the relative prices were estimated to mitigate the problem of the non-normality of the data (strong, 1992).

$$R_{it} = Ln(p_{it}/P_{it-1})$$

Where Ln is the natural logs, P_{it} is the share price of firm i on day t and P_{it-1} refers to the share price of the same share the previous day. R_{mt} is also estimated using a similar approach.

$$R_{mt} = Ln(NSE\ 20_{it}/NSE\ 20_{it-1})$$

Using the methodology of standardising cumulative abnormal returns with the use of their respective standard deviation to homogenise the data. The cumulative abnormal return (CAR) from t_1 to t_2 within $T_1 < t_1 \le t_2 \le T_2$ is defined as:

$$CAR_i(t_1, t_2) = \sum_{t=t_1}^{t_1} AR_{it}$$

Where,

t = 0 refers to the event day (dividend announcement day).

 $t = T_0 + 1$ to $t = T_1$ refers to the estimation window (period prior to the event date)

 $t = T_1 + 1$ to $t = T_2$ represents the event window. (period after the event date)

The standardised abnormal returns given as SAR_{it} is defined as.

$$SAR_{it} = \frac{AR_{it}}{S_{AR_i}}$$

Where,

$$S_{AR_i} = \sqrt{\frac{1}{T_1 - T_0 - 1} \sum_{t = T_0 + 1}^{T_1} AR_{it}^2}$$

3.5.3 Significance Tests

Using the t-statistics the study tests the null hypothesis that the expected abnormal return approaches a value zero.

$$H_0: E(AR_{i,t}) = 0$$

The test statistic is given as,

$$t_{AR_{i,t}} = \frac{AR_{i,t}}{S_{AR_i}}$$

Similarly, this study examines the null hypothesis that the expected cumulative abnormal returns approaches a value zero.

$$H_0: E(CAR_i) = 0$$

The t-statistics of the cumulative abnormal returns for each firm is defined as:

$$t_{CAR} = \frac{CAR_i}{S_{CAR}}$$

Where,

$$S_{CAR}^2 = L_2 S_{AR_i}^2$$

Given that $L_2 = T_2 - T_1$

This test aims to analyse whether, there is any significant change in stock returns as a result of dividend announcements. In conclusion, this test assists to determine whether there are any market reactions towards dividend announcements.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION.

4.1 Introduction

This chapter comprises data findings and the conclusions made from the study. The

study's main objective was to examine the stock return behaviours influenced by the

dividend announcements for the commercial banks listed on NSE.

4.2 Findings

The daily stock prices for the 11 commercial banks quoted on the NSE were collected

with the help of the NSE Handbook. Dividend announcement dates were collected from

the Annual General Meetings announcements made by the management. Commercial

banks are seen to make dividend announcements around April-July each year, with a

few banks making the announcements in August and September (Table A). The daily

share and market prices were tabulated for 15 days before and after the dividend

announcement taking into account 31-days event window. The study estimated the

actual daily returns and their respective Market returns using the tabulated everyday

prices and market prices. Besides, the Abnormal returns were computed as the

difference between the actual daily returns and the market returns throughout the event

window. Cumulative abnormal returns CAR were also calculated by summating the

daily abnormal return before and after the dividend announcement. A CAR graph was

plotted for each of the years within the study period. The figures below in Table B show

the daily abnormal returns (AR) and CAR for the 11 listed companies for the 5 years

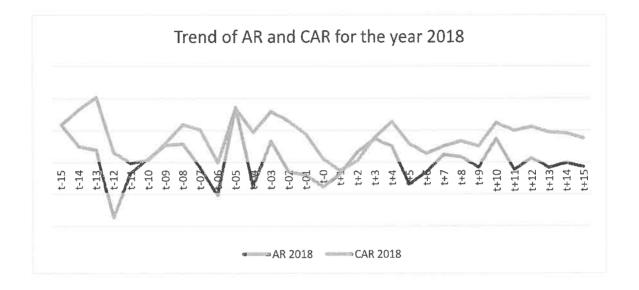
of study within the 31-days event window

27

4.2.1 Analysis for 2018.

The researcher computed both the abnormal and cumulative abnormal returns from the daily and market returns. The results were tabulated in a trend graph, as illustrated below.

Figure 4.1: Trend Analysis of AR and CAR for the Year 2018

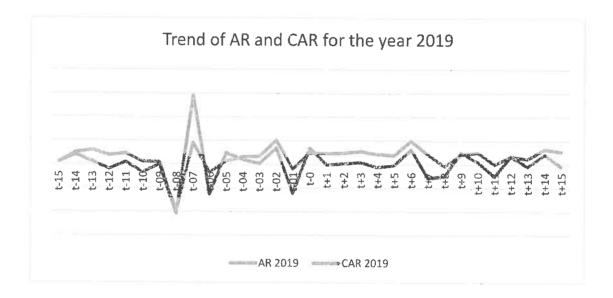


Both the curves of AR and CAR are observed to be fluctuating around the zero line, with the CAR having majorly positive values while the values of AR revolve between positive and negative throughout the event window. AR is observed to have more negative returns before announcement dates but remains positive after the announcement date but with a few negatives. At time t-5, AR has acquired its highest value throughout the event window. At time t-0, both AR and CAR acquire values close to zero. This data illustrates that announcements of dividend had an influence on stock returns. However, the market absorbed the information a few days before the announcement; hence the impact of the dividend announcement was observed slightly before dividends were announced. Similarly, the returns stabilised after the announcement, and abnormal returns were seen reducing to values around zero.

4.2.2 Analysis for 2019.

The estimated Abnormal returns and Cumulative abnormal returns from the daily and market returns for the year 2019 were collected and tabulated. A graphical representation illustrating the trend was plotted and analysed below.

Figure 4.2: Trend Analysis of AR and CAR for the Year 2019



Similarly, as observed in the year 2018, both the curves of AR and CAR fluctuate around the zero line, with the CAR having majorly positive values while AR values revolve between positive and negative throughout the event window. The range of AR fluctuations reduced in 2019 as compared to 2018. This can be deduced as the market had stable returns with the abnormal returns revolving about zero until there was some information leakage regarding dividends.

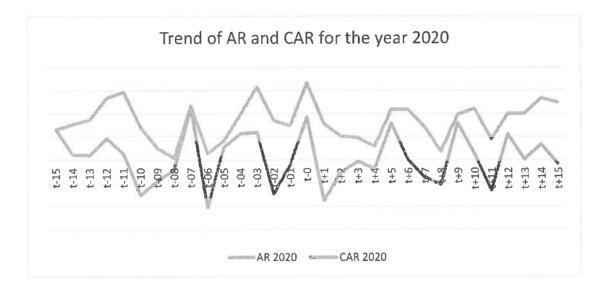
The dividend announcement information seems to have leaked to the market around day t-07. This is observed to have generated the highest abnormal and cumulative abnormal returns. As the market participants absorbed the dividend information, the returns stabilised again. Therefore, this data confirms a positive relationship between dividend announcements and stock returns. However, the information is seen to have

leaked in the market before the announcement date; hence, its effect is neutralised during and after the announcement.

4.2.3 Analysis for 2020

The data for AR and CAR was collected for the year 2020. It was then tabulated, and a graphical representation was plotted to illustrate the trend within the 31-days event window. The graph is analysed below.

Figure 4.3: Trend Analysis of AR and CAR for the Year 2020



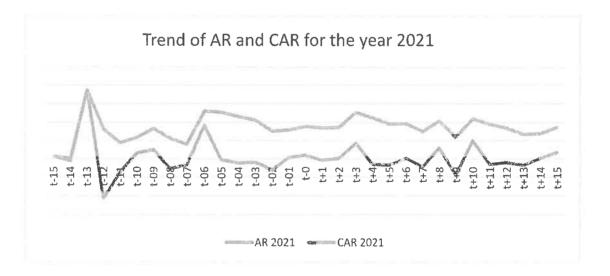
The AR and CAR are seen to have higher ranges of fluctuations in 2020 than in 2019 and 2018. The first case of COVID-19 was announced in December 2019; therefore, the security market had yet to absorb this information fully and stabilise within 2020. As management made dividend announcements, with some announcing Zero dividends and others no change in dividend pay-out to respond to the economic crises, investors' reactions had varying impacts; hence the high ranges of fluctuations of AR and CAR are observed. Similarly, the information about dividend announcements is observed to have leaked in the market on day t-07; hence, the market recorded a high AR and CAR on that day. As the investors react to the announcement, another high record is observed

on day t-0. This second-high record of AR and CAR can be attributed to the uncertainty brought about by the COVID-19 crisis, which affected investors' behaviour. After the announcements, the abnormal returns did not stabilise around zero, as seen in the other 2 years. This data signifies a positive relationship between dividend announcements and stock returns. Also, it is observed that payment of dividends motivated investments as firms recover from an economic crisis such as COVID-19.

4.2.4 Analysis for 2021

The data for AR and CAR was collected for the year 2021. It was then tabulated, and a graphical representation was plotted to illustrate the trend within the 31 days event window. The graph was analysed, as indicated below.

Figure 4.4: Trend Analysis of AR and CAR for the Year 2021



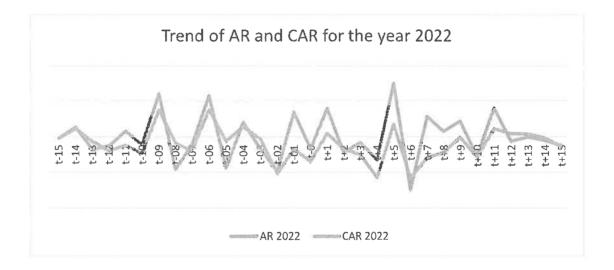
In the year 2021, the market is seen to acquire a form of stabilisation as the range of fluctuations narrows down compared to 2020. Commercial banks and related investors were adapting to the economic crises within the country. Both AR and CAR attained a high mark at t-13. This can be attributed to management's leakage of dividend information as they attempt to motivate investments in the market. Due to varying

investors' reactions, a slightly higher value is observed around t-06. Subsequently, the abnormal returns are seen to stabilise around Zero. This data is relevant to the study because it helps deduce a positive relationship between dividend announcements and stock returns. Similarly, it has high lightened that managements can use dividend announcements to encourage investments over the short run.

4.2.5 Analysis for 2022.

The researcher computed both the abnormal and cumulative abnormal returns from the daily and market returns in the year 2022. The results were tabulated in a trend graph, as illustrated below.

Figure 4.5: Trend Analysis of AR and CAR for the Year 2022



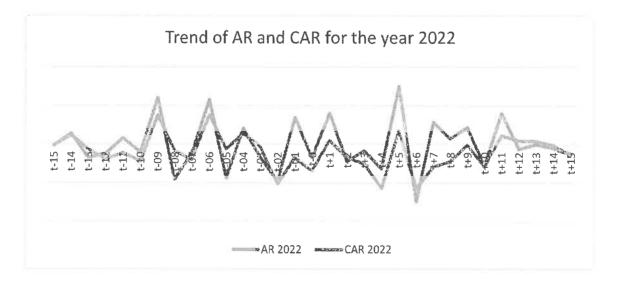
The AR and CAR are seen to have higher ranges of fluctuations in 2022, similar to those observed in 2020. In February 2022, the Russia and Ukraine war began. This influenced foreign investors to liquidate their investments in frontier and emerging markets, such as Kenya, due to rising interest rates in Europe and US (Anyanzwa, 2022). This impact of geopolitical war on stock returns affected the observed relationship between dividend announcements and stock returns. Nevertheless, on day t-09, dividend information is seen to have leaked in the market, leading to a higher AR

and CAR, as observed above. The fluctuation of AR and CAR are seen not to have stabilised as in the previous years. This can be explained by the fact that as foreign investors liquidated their investments, pushing the prices down, the local investors purchased more investments, hence the observed high fluctuations around zero. Therefore, it is evident from this research that, despite the effects of Economic and geopolitical crises in the market, dividend announcements have a positive relationship with stock returns. However, as seen in the 5-year study, this information is leaked in the market a few days before the announcement date.

4.2.6 Analysis of the 5-year study period

The AR and CAR tabulated from each of the 5-year were aggregated, and a combined AR and CAR was obtained. A graphical representation was plotted and analysed, as shown below.

Figure 4.6: Trend Analysis of AR and CAR for the 5-years study period



The trend of AR and CAR is observed to fluctuate around zero. AR is observed to attain high values a few days before the announcements as information is leaked and absorbed by the investors. At around t-0, AR and CAR values are statistically insignificant as the

market has already adjusted to the expected announcements. AR and CAR values fluctuate throughout the event window and do not stabilise after announcements, as seen in some years. These fluctuations resulted from the economic crises and geopolitical tensions that affected investors' behaviours. Therefore, in conclusion, the research can deduce that dividend announcements significantly impact stock returns. However, other factors affect stock returns, such as interest rates and economic conditions.

4.3 Test of Significance

A 2 tailed t-test is carried out at a 95% confidence level and 5% significance level to test whether there is a significant difference between the abnormal returns and mean abnormal returns within the event window. The t critical value for a sample size of 31 items at a 5% significance level is obtained to be ± 2.042 .

From the analysis in Figure 4.7 below, which is obtained from the figures in Table C, the two-tailed p-value of Abnormal returns and the mean abnormal returns is observed to be 0.409, which is higher than the significance level of 0.05. Therefore, the results indicate that the difference between the 2 values is statistically insignificant.

Figure 4.7: T-test analysis of AR and the mean AR.

| | T-Test: Paired Two Sample for Means | | | | | | | |
|--------------|-------------------------------------|-------------|--|--|--|--|--|--|
| | AR | Mean AR | | | | | | |
| Mean | 0.009198304 | 0.001839661 | | | | | | |
| Variance | 0.015633431 | 0.000625337 | | | | | | |
| Observations | 31 | 31 | | | | | | |

| Pearson Correlation | 1 |
|------------------------------|-------------|
| Hypothesized Mean Difference | 0 |
| df | 30 |
| t Stat | 0.409601429 |
| P(T<=t) one-tail | 0.342504197 |
| t Critical one-tail | 1.697260887 |
| P(T<=t) two-tail | 0.685008393 |
| t Critical two-tail | 2.042272456 |

Similarly, from table D, a statistically significant value is observed on day t-07. The mean value on this day is at 7.3%, this indicates that the movement in prices is as a result of the expected announcements as they signal in the market. These results also indicate that the market assimilated the dividend announcements as the mean values are observed to reduce overtime. The other computed values of t-statistics fall within the acceptance range of the t-test at a 95% confidence level. Indicating that, the null hypothesis that the AR and CAR approach a value of zero is within the acceptance range. Therefore, these findings assist in making solid conclusions that there is a significant impact of dividend announcements on stock returns. However, this impact is not felt in the market on the day the announcements are made. These research findings are in line with the Semi Strong Efficient market hypothesis.

There are two possible explanations for these insignificant abnormal returns observed on the announcement date. Firstly, the major shareholders of a number of Kenyan Commercial Banks form the Board of Directors, whose responsibility involves determining the dividend policy of the same banks. Therefore, information on dividend

announcements may have been impounded on the share prices before the information was released to the public on the announcement date. (khan, 2011).

Secondly, the graphical representations depicted a possible information leakage to the market before the official announcements were made. This is evidenced by the consistently insignificant values of AR and CAR at day t-0 but a highly significant value of AR and CAR a few days before the announcement. These findings are consistent with those of Uddin (2003) in his study in Bangladeshi and Khan (2011) for the Pakistan stock market.

4.4 Interpretation of the Findings

This research was conducted to analyse the effects of dividend announcements on stock returns for commercial banks listed at NSE. The AR was computed by subtracting the daily returns from the market as the share prices are assumed to have a beta coefficient of 1.0. The AR was computed and tabulated for the 5 years of study within a 31-day event window (-15 and +15). The CAR were estimated by summating the daily abnormal returns within the event window.

Graphical representations of AR and CAR were plotted and analysed in each year of study. Finally, a two-tailed test was conducted to test the difference between AR, Mean AR and median AR. It was observed that the values are not statistically different. Further, a t-test was tabulated for the AR and CAR values obtained for all years within the event window (Table D). The t values are observed to fall within the acceptance range where the null hypothesis is accepted.

Owira (2016) in his study concludes that dividend announcements are positively associated with increased stock returns. Oyuga (2014) reveals that earnings announcements have a significant influence on share returns. Khan (2011), in his study

on the Pakistan stock market, concludes that dividend announcements do not impact stock returns on the day the announcements are made; instead, they have some significant impact a few days before the announcement. This study makes a similar observation as AR and CAR values are insignificant during announcements but statistically significant a few days before the announcement.

CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The study analysed the impacts of dividend announcements on stock returns for commercial banks listed at the NSE. The results from the study and inferences made built from the study's main objectives are summarised in this chapter. This conclusion is made from the collected, analysed, tabulated and finally tested data.

5.1 Summary

The AR values were computed as the actual daily returns less daily market returns for the commercial banks' shares. The cumulative abnormal returns were estimated through the summation of the daily abnormal returns throughout the event window. Graphical representation of AR and CAR was plotted to analyse their trend within the 5 years of study. Among the 5 years of study, 2 years were observed to have market interruptions: COVID-19, which greatly affected the stocks in 2020 and the Russian-Ukraine war, which affected the stocks in 2022.

From the analysis, AR and CAR were observed to record a high value a few days before the announcements. Subsequently, the values stabilised at around the zero line. The observations excluded the years when the stock market was affected by Market crises and geopolitical events (2020 and 2022). Within these 2 years, the values of AR and CAR are observed to fluctuate throughout the event window as investors' behaviours are affected by factors other than dividend announcements.

The data tabulated showed a consistent behaviour where Abnormal returns and Cumulative abnormal returns record a high significant value before the announcements.

The AR and CAR values are within the zero mark on the announcement date. These findings enable the researcher to make a conclusive argument that dividend announcements significantly impact stock returns. However, the impact is received in the market before the announcement and absorbed as the abnormal returns diminish.

5.2 Conclusion

This study enables the researcher to conclude that there exists a positive connection between dividend announcements and stock returns for commercial banks listed at the NSE. Therefore, it can be concluded that the NSE market reacts to new information, such as the case of dividend announcements. Similarly, it is evident that market crises and geopolitical tensions significantly impact stock returns.

5.3 Recommendations

This research recommends that firms make more frequent dividend announcements to promote investment in stocks. The study has shown that regular dividend announcements improve the stock value of the firms listed at NSE. This improvement enables firms to increase their capital base and market share as more investors purchases their stocks.

The study has also highlighted the significant impact of economic crises and geopolitical tensions on stock returns. This study encourages firms to caution themselves from the adverse effects by promoting investments through dividend announcements.

The information on dividend announcements has been observed to leak to the market a few days before the announcements. Therefore, this study recommends that NSE

ensures that the firms making the announcements do not report abnormal returns by providing a smooth and wide flow of information to all market participants.

The NSE is also expected to establish a mechanism through which investors can predict and determine the actual returns irrespective of the management announcements. This will eliminate abnormal returns, ensuring that the investors' decisions will not be based on a single event.

5.4 Limitations of the Study

In Kenya, according CBK report 2022 there are approximately 39 commercial banks. However, the population of the study was relatively small as it was limited to those listed on NSE and hence it comprised of 11 banks due to data availability. The study period comprised 5 years (2018-2022). This period is relatively short. The graphical representations may not be sufficient to represent other years that are not incorporated in this research.

Another limitation of this study is that the researcher considered an announcement in its absolute value. There was no classification and analysis of the type of announcement made, as some had an impact on increased dividends, others had no changes, and others were declining dividend announcements. These announcements could have caused varying impacts on the stock returns. The study utilised historical data that was also affected by the ongoing economic and political conditions. This data is insufficient for the prediction of future trends and events.

5.5 Areas of Further Studies

This research can assist in conducting further studies in other areas, such as investigating the effects of Increase, Decrease and No dividend payments on stock returns for firms listed at NSE. Similarly, a researcher can investigate the effects of cash dividends, bonus issues, mergers and Acquisitions on stock returns for firms. This research also forms the basis of future research on dividend announcements for all commercial banks in Kenya through both primary and secondary data.

This research was conducted in years when stock returns were affected by various economic factors and geopolitical tensions. Further comprehensive research can be carried out to analyse the effects of COVID-19 on stock returns for firms listed at the NSE. Similarly, a researcher can investigate the effects of Dividend structures on a firm's values. Different sectors such as services, communications, and manufacturing can also be analysed, and results compared to the results obtained in this study.

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Table A: Tabulation of dividend announcements date by the 11 commercial banks listed at NSE for the 5 years' study period. APPENDIX

| Kenya Commercial Banks listed | 2018 | Kenya Commercial Banks listed at NSE 2018 Announcement 2019 Au | 2019 | Announcement | 2020 | Announcement | 2021 | Апанисеменt | 2023 | Ą |
|-------------------------------------|----------------------------|--|--------------|--------------------------|-------------|---------------------------|---------------|---------------------------|-----------|--------------------------|
| | 5/25/2018 | Kes 0.8 Div. declared | 5/29/2019 | Kes 0.9 Div. Declared | 6/19/2020 | Kes 0.9 Div. Declared | 5/27/2021 | Zero Div. | 27079215 | Kes 1.1 Div. |
| Stanbic Holding | 6/12/2018 | Kes 4.0 Div. declared | 5/9/2019 | Kes 3.55Div declared | 6/26/2020 | Kes 5.8 Div. | 5/20/2021 | Kes 3.8 Div. | 5/10/2022 | Kes 7.3 Div. |
| I&M Holding | 5/24/2018 | Kes 3.5Div declared | 5/23/2019 | Zero Div. Declared | 6/26/2020 | Kes 2.55 Div. declared | 5/20/2021 | Kes 2.25 Div. declared | 5/26/2022 | Kes 1.5 Div. |
| | 5/24/2018 | Kes 2.6 Div. declared | 5/23/2019 | 65% Div. Declared | 6/25/2020 | 67.5% Div. Declared | 6/24/2021 | Zero div. declared | 6/30/2022 | 75% Div. Declared |
| HF Group | 4/27/2018 | Kes 0.35 Div. Declared | 4/26/2019 | Zero Div. declared | 7/10/2020 | Zero Div. declared | 5/28/2021 | Zero Div. | 2/20/2022 | Zero Div. |
| | 4/27/2018 | Kes 2 Div. Declared | 5/30/2019 | Kes 2.5 Div. Declared | 6/4/2020 | Kes 2.5 Div. Declared | 5/27/2021 | Kes I Div. Declared | 6/3/2022 | Kes 2 Div. Declared |
| National Bank | - | NBK became a subsidiary of KCB in 2019. Data Analysis of NBK will be tracked at KCB as their reports are incorporated in KCB | KCB in 2019. | Data Analysis of | NBK will be | tracked at KCB as | their reports | are incorporated in 1 | KCB. | |
| | 6/10/2018 | Kes 1.25 Div. Declared | 5/31/2019 | Kes 1.5 Div. Declared | 7/24/2020 | Kes 0.25 Div. declared | 6/9/2021 | Kes 1.5 Div. declared | 5/5/2022 | Kes 2.25 Div. declared |
| Standard chartered | 5/24/2018 | Kes 12.5 Div. declared | 5/23/2019 | Kes 14 Div. declared | 7/24/2020 | Kes 7.5 Div. declared | 5/27/2021 | Kes 10.5 Div. declared | 5/25/2022 | Kes 14 Div. declared |
| Equity bank | 5/3/2018 | Kes 2 Div. Declared | 4/30/2019 | Kes 2 Div. Declared | 6/30/2020 | Zero Div. declared | 6/24/2021 | Zero Div. declared | 6/29/2022 | Kes 3 Div. Declared |
| 11 Coop bank | 5/25/2018 | Kes 0.8 Div. Declared | 5/23/2019 | Kes 1 Div. Declared | 10/22/2020 | Kes I Div. Declared | 8/20/2021 | Kes 1 Div. Declared | 5/27/2022 | Kes 1.0 Div. Declared |
| Kigali | 12 Bank of Kigali 6/7/2018 | 12 Bank of Kigali 6/7/2018 declared | 6/13/2019 | Rw 12.2 Div. declared | 6/11/2020 | Rw 14.4 Div. declared | 6/16/2021 | Zero Div. declared | 2002/21/9 | Rw 28.7 Div. |

Source: Banks AGMs Minutes Meetings

Table B: A tabulation of the cumulative Abnormal returns for the 5 years' study period.

| Day | | | | ears (Table | | | CAR all |
|------------------|----------|----------|----------|-------------|----------|--------------|----------|
| (t) [*] | AR 2018 | AR 2019 | AR 2020 | AR 2021 | AR 2022 | AR all years | years |
| t-15 | 0.05818 | 0.00883 | 0.06568 | 0.00585 | -0.00208 | 0.13647 | 0.13647 |
| t-14 | 0.02418 | 0.03965 | 0.01138 | -0.00600 | 0.01324 | 0.08245 | 0.21892 |
| t-13 | 0.01910 | 0.01013 | 0.01004 | 0.18675 | -0.01789 | 0.20812 | 0.42704 |
| t-12 | -0.08649 | -0.02123 | 0.04667 | -0.10696 | -0.01290 | -0.18091 | 0.24613 |
| t-11 | -0.01683 | 0.00744 | 0.01298 | -0.03689 | 0.00753 | -0.02576 | 0.22037 |
| t-10 | 0.00521 | -0.03502 | -0.07636 | 0.01499 | -0.01050 | -0.10169 | 0.11868 |
| t-09 | 0.02679 | -0.00091 | -0.04526 | 0.02418 | 0.05987 | 0.06467 | 0.18335 |
| t-08 | 0.02852 | -0.20911 | -0.02148 | -0.02675 | -0.04565 | -0.27448 | -0.09113 |
| t-07 | -0.00815 | 0.29030 | 0.11235 | -0.01634 | -0.01135 | 0.36682 | 0.27569 |
| t - 06 | -0.05179 | -0.12540 | -0.10214 | 0.09091 | 0.05735 | -0.13106 | 0.14462 |
| t-05 | 0.08546 | 0.04710 | 0.02751 | -0.00312 | -0.04387 | 0.11309 | 0.25771 |
| t-04 | -0.03766 | 0.01853 | 0.05652 | -0.01182 | 0.01999 | 0.04556 | 0.30327 |
| t-03 | 0.03272 | 0.00231 | 0.05953 | -0.00962 | -0.01675 | 0.06819 | 0.37146 |
| t-02 | -0.01498 | 0.06807 | -0.07260 | -0.03027 | -0.04872 | -0.09851 | 0.27295 |
| t-01 | -0.02059 | -0.12052 | -0.01049 | 0.00346 | 0.03418 | -0.11396 | 0.15899 |
| t-0 | -0.03833 | 0.06697 | 0.09210 | 0.00965 | -0.01710 | 0.11328 | 0.27227 |
| t+1 | -0.01884 | -0.00252 | -0.08805 | -0.00416 | 0.03951 | -0.07406 | 0.19821 |
| t+2 | 0.01570 | 0.00224 | -0.02709 | 0.00087 | -0.02209 | -0.03036 | 0.16785 |
| t+3 | 0.03635 | 0.00735 | -0.00340 | 0.04153 | -0.00830 | 0.07353 | 0.24138 |
| t+4 | 0.02463 | -0.01230 | -0.01891 | -0.01471 | -0.03190 | -0.05320 | 0.18817 |
| t+5 | -0.03436 | -0.00492 | 0.07920 | -0.01696 | 0.07454 | 0.09749 | 0.28567 |
| t+6 | -0.01535 | 0.06152 | 0.00029 | 0.00124 | -0.07463 | -0.02693 | 0.25874 |
| t+7 | 0.01149 | -0.05809 | -0.03778 | -0.02220 | 0.02800 | -0.07859 | 0.18015 |
| t+8 | 0.00798 | -0.04928 | -0.05301 | 0.02906 | 0.00720 | -0.05805 | 0.12209 |
| t+9 | -0.00808 | 0.04835 | 0.07945 | -0.04343 | 0.02144 | 0.09774 | 0.21983 |
| t+10 | 0.03625 | 0.00912 | 0.01233 | 0.04915 | -0.02800 | 0.07885 | 0.29868 |
| t+11 | -0.01185 | -0.04930 | -0.06563 | -0.01457 | 0.03965 | -0.10171 | 0.19698 |
| t+12 | 0.00605 | 0.03252 | 0.05504 | -0.01009 | -0.00665 | 0.07687 | 0.27385 |
| t+13 | -0.00868 | -0.00940 | 0.00023 | -0.01710 | -0.00050 | -0.03545 | 0.23840 |
| t+14 | -0.00145 | 0.04090 | 0.03298 | 0.00146 | -0.00538 | 0.06850 | 0.30690 |
| t+15 | -0.00770 | -0.00950 | -0.00885 | 0.01673 | -0.01243 | -0.02175 | 0.28515 |

Source: Research Findings

Table C: A tabulation of Abnormal returns for the 5 years' study period.-Amend to be Cumulative Abnormal Return.

| | | s on 31days | | nt window ears | | |
|------|-----------|-------------|--------------|-----------------------|------------------|------------------|
| Day | AR | Mean AR | Median AR | Standard Deviation | Minimum Value | Maximum Value |
| t-15 | 0.136472 | 0.027294 | 0.00883 | 0.001192 | -0.002076 | 0.065679 |
| t-14 | 0.082451 | 0.016490 | 0.01324 | 0.000435 | -0.005997 | 0.039646 |
| t-13 | 0.208119 | 0.041624 | 0.01013 | 0.002772 | -0.017889 | 0.186748 |
| t-12 | -0.180911 | -0.036182 | -0.02123 | 0.002095 | -0.106956 | 0.046668 |
| t-11 | -0.025762 | -0.005152 | 0.00744 | 0.000042 | -0.036886 | 0.012981 |
| t-10 | -0.101688 | -0.020338 | -0.01050 | 0.000662 | -0.076364 | 0.014988 |
| t-09 | 0.064668 | 0.012934 | 0.02418 | 0.000268 | -0.045264 | 0.059866 |
| t-08 | -0.274479 | -0.054896 | -0.02675 | 0.004822 | -0.209112 | 0.028520 |
| t-07 | 0.366816 | 0.073363 | -0.00815 | 0.008611 | -0.016340 | 0.290298 |
| t-06 | -0.131064 | -0.026213 | -0.05179 | 0.001099 | -0.125397 | 0.090913 |
| t-05 | 0.113087 | 0.022617 | 0.02751 | 0.000818 | -0.043868 | 0.085464 |
| t-04 | 0.045558 | 0.009112 | 0.01853 | 0.000133 | -0.037660 | 0.056521 |
| t-03 | 0.068188 | 0.013638 | 0.00231 | 0.000298 | -0.016751 | 0.059532 |
| t-02 | -0.098507 | -0.019701 | -0.03027 | 0.000621 | -0.072600 | 0.068065 |
| t-01 | -0.113964 | -0.022793 | -0.01049 | 0.000831 | -0.120521 | 0.034177 |
| t-0 | 0.113282 | 0.022656 | 0.00965 | 0.000821 | -0.038335 | 0.092099 |
| t+1 | -0.074058 | -0.014812 | -0.00416 | 0.000351 | -0.088049 | 0.039514 |
| t+2 | -0.030364 | -0.006073 | 0.00087 | 0.000059 | -0.027087 | 0.015699 |
| t+3 | 0.073530 | 0.014706 | 0.00735 | 0.000346 | -0.008303 | 0.041531 |
| t+4 | -0.053203 | -0.010641 | -0.01471 | 0.000181 | -0.031904 | 0.024630 |
| t+5 | 0.097495 | 0.019499 | -0.00492 | 0.000608 | -0.034359 | 0.079201 |
| t+6 | -0.026932 | -0.005386 | 0.00029 | 0.000046 | -0.074634 | 0.061519 |
| t+7 | -0.078587 | -0.015717 | -0.02220 | 0.000395 | -0.058091 | 0.027997 |
| t+8 | -0.058053 | -0.011611 | 0.00720 | 0.000216 | -0.053006 | 0.029065 |
| t+9 | 0.097735 | 0.019547 | 0.02144 | 0.000611 | -0.043426 | 0.079446 |
| +10 | 0.078852 | 0.015770 | 0.01233 | 0.000398 | -0.028001 | 0.049149 |
| :+11 | -0.101706 | -0.020341 | -0.01457 | 0.000662 | -0.065629 | 0.039649 |
| +12 | 0.076870 | 0.015374 | 0.00605 | 0.000378 | -0.010087 | 0.055039 |
| +13 | -0.035451 | -0.007090 | -0.00868 | 0.000080 | -0.017099 | 0.000230 |
| +14 | 0.068504 | 0.013701 | 0.00146 | 0.000300 | -0.005382 | 0.040899 |
| +15 | -0.021752 | -0.004350 | -0.00885 | 0.000030 | -0.012433 | 0.016726 |

Source: Research Findings

Table D: Computations of the t-statistics of both the AR and CAR for the 31 days' event window within the 5 years of study.

| The t st | | | | |
|----------|-----------|-----------|-----------|-----------|
| Day | AR | t AR | CAR | t CAR |
| t-15 | 0.136472 | 1.930916 | 0.136472 | 0.910670 |
| t-14 | 0.082451 | 1.166578 | 0.218923 | 1.460858 |
| t-13 | 0.208119 | 2.944625 | 0.427042 | 2.849619 |
| t-12 | -0.180911 | -2.559668 | 0.246131 | 1.642414 |
| t-11 | -0.025762 | -0.364499 | 0.220369 | 1.470507 |
| t-10 | -0.101688 | -1.438754 | 0.118682 | 0.791953 |
| t-09 | 0.064668 | 0.914971 | 0.183349 | 1.223477 |
| t-08 | -0.274479 | -3.883536 | -0.091129 | -0.608099 |
| t-07 | 0.366816 | 5.190001 | 0.275687 | 1.839640 |
| t-06 | -0.131064 | -1.854396 | 0.144623 | 0.965059 |
| t-05 | 0.113087 | 1.600040 | 0.257710 | 1.719679 |
| t-04 | 0.045558 | 0.644587 | 0.303268 | 2.023683 |
| t-03 | 0.068188 | 0.964782 | 0.371456 | 2.478699 |
| t-02 | -0.098507 | -1.393753 | 0.272949 | 1.821370 |
| t-01 | -0.113964 | -1.612445 | 0.158986 | 1.060899 |
| t-0 | 0.113282 | 1.602800 | 0.272267 | 1.816821 |
| t+1 | -0.074058 | -1.047828 | 0.198210 | 1.322638 |
| t+2 | -0.030364 | -0.429619 | 0.167845 | 1.120019 |
| t+3 | 0.073530 | 1.040361 | 0.241375 | 1.610680 |
| t+4 | -0.053203 | -0.752760 | 0.188172 | 1.255659 |
| t+5 | 0.097495 | 1.379435 | 0.285667 | 1.906236 |
| t+6 | -0.026932 | -0.381048 | 0.258736 | 1.726523 |
| :+7 | -0.078587 | -1.111911 | 0.180148 | 1.202117 |
| t+8 | -0.058053 | -0.821385 | 0.122095 | 0.814731 |
| t+9 | 0.097735 | 1.382833 | 0.219830 | 1.466911 |
| t+10 | 0.078852 | 1.115664 | 0.298682 | 1.993086 |
| :+11 | -0.101706 | -1.439021 | 0.196976 | 1.314407 |
| t+12 | 0.076870 | 1.087621 | 0.273846 | 1.827357 |
| t+13 | -0.035451 | -0.501591 | 0.238395 | 1.590794 |
| t+14 | 0.068504 | 0.969252 | 0.306900 | 2.047918 |
| t+15 | -0.021752 | -0.307766 | 0.285147 | 1.902768 |

Source: Research Findings (t-critical @ 5% significance level is 2.04523)

Table E: Average shares traded within the 5 years of study.

| | Average Shares Trad Kenya Commercial | | period (2010 | 2017) | | I |
|----|---|----------------|------------------|--------------|--------------|--------------|
| | Banks listed at NSE | 2018 | 2019 | 2020 | 2021 | 2022 |
| 1 | Absa | 955,259.36 | 884,990.00 | 920,819.20 | 506,335.86 | 333,299.51 |
| 2 | Stanbic Holding | 49,233.33 | 42,280.77 | 107,614.43 | 58,669.47 | 112,613.66 |
| 3 | I&M Holding | 135,411.76 | 132,804.57 | 102,540.37 | 172,295.12 | 115,015.79 |
| 4 | DTB | 71,718.24 | 96,212.00 | 49,041.80 | 74,712.70 | 27,557.77 |
| 5 | HF Group | 151,985.48 | 139,147.37 | 57,181.78 | 61,422.31 | 35,443.96 |
| 6 | KCB | 1,925,990.40 | 1,988,324.40 | 1,935,015.48 | 1,340,567.33 | 1,103,391.87 |
| 7 | National Bank | values reporte | ed together with | those of KCB | | |
| 8 | NCBA | 322,289.28 | 162,894.98 | 186,257.46 | 385,513.16 | 334,006.25 |
| 9 | Standard chartered | 28,208.70 | 15,979.84 | 33,510.44 | 52,435.06 | 62,905.77 |
| 10 | Equity bank | 2,362,134.00 | 2,992,933.20 | 2,691,621.03 | 1,673,316.33 | 1,263,796.65 |
| 11 | Coop bank | 805,425.20 | 872,009.63 | 657,713.10 | 581,005.98 | 316,250.24 |
| 12 | Bank of Kigali | N/A | N/A | 573,454.62 | 181,172.44 | 30,262.60 |

Source: NSE Historical Shares Traded Handbook



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