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Dividend Policy and Share Price Volatility of Listed Construction Firms at the Nairobi Securities Exchange, Kenya

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ABSTRACT

The inherent volatility in all stock market scares low risk takers from the financial market and is capable of deterring investments. One of the factors that drives investors' reactions to stock pricing is the dividend policy. This study examined the influence of dividend policy on the volatility of stock prices of construction firms listed at the Nairobi Securities Exchange for the period spanning five (5) years from 2019 to 2023. The study was dealt with on the following objectives; to examine the influence of dividend pay-out on share price volatility of listed construction firms at the NSE, Kenya, to determine the influence of dividend yield on share price volatility of listed construction firms at the NSE, Kenya. The study was guided by the: Dividend relevance theory, and dividend irrelevance theory. This study adopted a correlational research design while dealing with the research objectives. A census method was employed in data collection before analysis of the audited financial statements that was downloaded from the firm websites in arriving at detailed and well informed conclusions by employing Multiple regression, Correlation and ANOVA techniques using the Statistical Package for Social Sciences (SPSS) to establish the existence (or lack of it) of the relationship between the independent variables and the dependent variable of the study. The findings revealed that dividend policy influenced share price volatility by; dividend pay-out ratio ($r=0.111$, $\beta=0.036$, $t=4.7240$); and dividend yield ($r= -0.018$, $\beta= -0.003$, $t= 2.7130$). The study recommended that potential and existing investors should opt for listed firms in the construction sector with a high dividend payout ratio compared to the earnings generated by the firms; Investors to invest in firms with high dividend payouts. The study achieved its main objective.

Keywords: *Dividend Policy, Dividend Pay-out, Dividend Yield, Share Price Volatility*

INTRODUCTION

Background of the Study

Sporadic swings in the prices of securities traded on stock market creates market volatility. Stock market price volatility is the "ups and downs in the stock prices during a time period" (Alajekwu & Ezeabasili, 2020). It describes the variation of the changes in a firm share price. This is usually measured using the standard deviation of changes in stock prices (Profilet & Bacon, 2023). According to Oke and Kwameh (2021), "the issue of stock volatility is not that volatility exists, but that the volatility varies, hence the question as to why there is volatility of volatility". This gives rise to volatility clustering which

according to Ilaboya and Aggreh (2023), occurs in a financial market, when a high return (positive or negative) is more likely to be followed by another high return, or when a low return (positive or negative) is more likely to be followed by another low return. Ilaboya and Aggreh (2023) further explain that volatility clustering is a natural result of a price formation process when there are heterogeneous beliefs across traders; thus, it is not the result of an auto-correlated news-generation process around public information such as macroeconomic news releases or firms' earnings releases. Rather it is the result of the behaviour of the traders, especially the irrational tendency to miscalculate stock prices further deviation to similar direction.

Volatility is the cause of risk in stock trading. It is precisely the risk share price changes bring about the stock market volatility (Christina, 2021). This is why it is the standard measure of the risk faced by investors (Ilaboya & Aggreh, 2023). This market wide risk emanating from the volatility of the ordinary stock is the systematic risk faced by investors who possess ordinary stock investments (Guo, 2022). It defines the risk and represents the rate of change in the price of a security over a given time. As the risk is related to the variance of a security's price, higher volatility, increases the chances of a gain or loss in investment in a short period of time. Thus, if a stock is said to be volatile, its price would greatly vary over time, and it is more difficult to say in certainty what its future price will be. In other words, the lesser the volatility of a given stock, the greater its attraction to investors (Okafor, Mgbame & Chijoke-Mgbame, 2021).

The importance of stock market volatility cannot be overemphasized. Investors, by nature, are risk-averse. Investors crave to understand the volatility of their investments as this measures the level of risk they are exposed to (Okafor, Mgbame & Chijoke-Mgbame, 2021). The quantum of anticipated market risk determines the rate of expected return from investment. A market is said to be volatile if the past prices of stocks reflect in the future stock prices. Thus, to be able to input the estimates of the volatility of an underlying asset, one can only observe the stock return series. Therefore, in the financial market; volatility is often referred to as the standard deviation or variance.

In an ideal efficient market, all information about a firm's asset fundamentals and growth opportunities should be properly reflected in its share price. Dividend decisions send strong signals to the market about firm's fundamentals (Alajekwu & Ezeabasili, 2020). In early corporate finance practice, dividend policy referred to a corporation's choice of whether to pay its shareholders a cash dividend or to retain its earnings. It addressed the frequency of such payments (whether annually, semi-annually or quarterly) and how much the company should if it decides to pay (Pandey, 2019). Dividend policy, in today's corporations, has progressed beyond this scope to include such issues as whether to distribute cash via share repurchase or through specially-designated rather than regular dividends. Other issues considered are how to balance the preferences of highly taxed and relatively 'untaxed' investors; how to maintain, and improve the value of its shares and stocks in the market, among other factors. In Kenyan business environment, many investors holds the traditional belief that making returns on investment is the essence of engaging in any investment or business venture (Proshare, 2020).

Dividend policy has remained one of the controversial issues in corporate finance (Emeka & Ogochukwu, 2021). The decision on whether to pay dividend or not is described with the term "dividend policy." Osakwe, Ezeabasili and Chukwunulu (2019) defined dividend policy as a well-planned decision by the management which involves deciding the percentages of profit to be distributed and the part to be retained to fulfil its internal needs. Dividend policy decisions have been identified as one of the

primary elements of corporate finance policy.

Alaeto (2020) explained that dividends can be in the form of cash, giving away free stocks (bonus issue) or repurchasing shares. In particular, a cash dividend is the most common way of distributing earnings as it meets the liquidity needs of investors and sends vital information to shareholders about the current and future prospects of a firm. However, Pandey (2019) states that cash dividends may reduce the amount of funds retained by a company to finance its future growth and investments; this may force a company to have more external borrowing which may lead to more regulatory scrutiny and higher costs of financing.

Ordu, Enekwe and Anyanwaokoro (2023) noted that some financial analysts attribute the failure of some quoted firms to non-payment of dividends which according to them made investors lose interest in trading on stocks. Investors are by nature risk averse, and the volatility of their investments is of importance to them because it is a measure of the level of risk they are exposed to. Investors will naturally invest in stock with forecasted positive return on investment and a dividend policy that encourages higher dividend payout. In line with Ordu, Enekwe, and Anyanwaokoro (2023) perspective, the objective of the firm is the maximization of shareholders wealth and once investors don't get the value of their investment, they tend to divert their funds to other investment opportunities that could yield them immediate returns. The study also posits that dividend payment is a major component of stock return to shareholders which provides signal to investors that the company is complying with good corporate governance practices.

A company may choose to retain its earnings for growth. Corporate entities are faced with the problem of whether to pay a large or small dividend or zero percentage of their earnings as dividend. This is desired to satisfy the various needs of shareholders. Some shareholders have the need for current income and as such will prefer dividend payment, while others who need to invest in the future would prefer capital gains. Due to the fact of having to deal with competing interests of various shareholders, the kind of dividend policy a company adopts could either lead to a positive; negative or non-effect on share prices (Terungwa & Apebo, 2021). Share price is the amount it will cost to buy one share or unit of ownership in a company. Market prices of shares fluctuate frequently. According to Emeka and Ogochukwu (2021), one important channel through which managers may gain information on their firm is the observation of the level of changes of the firm's valuation on the secondary financial markets through share prices.

Al- Hasan, Asaduzzaman and Al Karim (2023) examined the effect of dividend policy on market price per share using 28 companies selected from four industries in Bangladesh from 2018 to 2022. The analyses of the study involved descriptive statistics, correlation and multiple regression techniques. Market price per share was used as the dependent variable while dividend per share and retained earnings per share were the independent variables. The result showed that dividend policy had significant effect on market share price.

Attah-Botchwey (2022) carried out a study in Ghana to examine the impact of dividend payment on share price. The study involved a survey of 60 shareholders of Ecobank Ghana Limited, Cal Bank Ghana Limited and AngloGold Ashanti Companies listed on the Ghana Stock Exchange 2016 - 2020. The descriptive study employed share price as the dependent variable and dividend per share as the independent variable. The results showed that there was a positive relationship between dividend policy and share price.

In Zimbabwe, Jakata and Nyamugure (2022) employed data from selected firms on the Stock Exchange (ZSE) to investigate the effect of dividend policy on the share

price of a firm. Share price serving as the dependent variable and dividend policy; earnings per share, turnover and net profit as independent variables. The study used Pearson's Correlation Coefficient and Linear Regression Analysis from a time serial data covering 2016 to 2020 and found that Dividend policy does not affect share price.

In Kenya, Kibet, Jagongo and Ndede (2021) used a sample of 55 listed firms in the Nairobi Securities Exchange covering five year time series from 2016 to 2020. The core objectives examined included; the effect of dividend policy (cash and share dividend) on the stock prices using equity Market Price as dependent variable and the independent variables as cash dividend and share dividend. A panel result obtained from Ordinary Least Square regression indicated positive relationship between cash dividend and share prices, and insignificant negative relationship between share dividend and share prices.

A similar Kenyan study from Mokaya, Nyang'ara and James (2023) examined the effect of Dividend Policy on Market Share Value using a sample of 100 shareholders drawn from a target population of 47,000 shareholders of National Bank. The study used market value of NBK shares as dependent variable while dividend payout, dividend growth rate, and regularity of dividend declaration were the independent variable. The Likert Scale questionnaire was employed for data collection and analyzed using correlation and regression techniques. The results showed that dividend policy had a significant effect on the market share value.

Previous research on dividend policy has shown not only that a general theory of dividend policy remains elusive, but also that corporate dividend practice varies over time among firms and across countries. The pattern of corporate dividend policies does not only vary over time but also across countries, especially between developed and emerging financial institutions. However a large number of firms in the developing economies are still apathetic about their dividend decisions as they are unaware of the connection between the dividend decisions and their performance. Based on this observation, this study considered it imperative to examine the relationship between dividend policy and share price volatility in the listed construction sector in Kenya.

Statement of the Problem

Evidence from the literature reviewed, Aivazian (2023); Booth and Zhou (2017) among other scholars, seem to suggest that limited studies have been done in the emerging markets of Sub-Saharan Africa, like Kenya, despite the extensive dividend studies carried out in developed countries such as the UK, US, Australia and Canada. For this reason, there is limited knowledge of effect of dividend policy on share price volatility in the emerging markets (Aivazian, 2023). Indeed, there are several reasons why the results found in developed countries may not hold true in developing countries. For example, empirical evidence from the literature suggests that factors surrounding the institutional environment, such as political instability, taxation, corporate governance, and the financial systems may mean that results in the developed countries vary from those in the developing countries (Booth & Zhou, 2017; Ozo, 2022).

Finally, most of the dividend studies conducted in Kenya are based on the financial sector because of data availability and stricter regulations, while fewer studies concern the non-financial sector (Ozo, 2022). However, findings from the literature suggest that industry classification may influence the effect of dividend payout (Aivazian, 2023). These deficiencies represent a huge gap in literature especially in developing countries, which this study seeks to fill. In order to address this, the current study used an 'up-to-date sample' of the listed construction firms on the Nairobi Securities Exchange to provide further evidence on why dividend policy of listed

construction firms may vary from that of developed countries, thereby contributing to the literature on dividend decisions.

General Objective

The general objective of the study was to examine dividend policy and share price volatility of listed construction firms at the Nairobi Securities Exchange, Kenya.

Specific Objectives

1. To examine the influence of dividend pay-out and share price volatility of listed construction firms at the NSE, Kenya.
2. To determine the influence of dividend yield and share price volatility of listed construction firms at the NSE, Kenya

Research Questions

1. How does dividend Pay-out influence share price volatility of listed construction Firms at the NSE, Kenya?
2. Does dividend Yield have an influence on share price volatility of listed construction Firms at the NSE, Kenya?

LITERATURE REVIEW

Theoretical Framework

Dividend Relevance Theory

This theory was propounded by Graham and Dodd (1934), in which they opined that a given amount of dividend has four times the impact on stock prices for the same amount of retained earnings. This theory is also called the Rightist Theory and states that companies should pay out a higher dividend as this will increase the value of the company's shares by multiple folds (Brealey & Myers, 1996: Koleosho, Akintoye & Ajibade, 2022). The proponents believed that the stock market is continuously in favor of liberal dividend payments rather than meagre ones, hence they want corporations to continuously pay dividends to the stockholders. The major supporters of this theory are Walter (1956) and Gordon (1959). Walter (1956), as cited by Olowe (2019), opined that organizations' dividend payment decisions are a function of the profitability of investment opportunities available to the firm. The maximization of shareholders' returns depends on the choice between the firm's internal rate of return and its cost of capital. The model employed by Walter (1956) was based on the following assumptions: That the entity is financed strictly by equity only and all investors do not want any level of risk; the investment opportunities will be financed mainly by retained earnings in the business and, as such, there is no external financing or the raising of new funds; the internal rate of return, earnings per share, dividend per share, and cost of capital are constant throughout the period; all earnings are either paid out as dividends to the shareholders or retained for internal reinvestment; and the entity has a perpetual or lasting earnings stream (Araoye et al., 2019).

The main argument put forward by Gordon (1959) centered on the fact that the payment of dividends to shareholders is to increase the stock price on the floor of the exchange (Okolie & Ordu, 2021). Lintner (1956) gave some propositions to emphasize the need for constant dividend payouts, which included; a long-run target dividend payout ratio by firms, expected by mature firms who have stable earnings and pay a higher percentage of the profit to investors. Growth firms, on the other hand, will have low payouts in order to ensure the stability of the business (Akintoye, 2022); the assumption that the manager focuses more on the changes to the dividend levels rather than the absolute levels in previous years and will therefore pay out a higher dividend in the current year. This should boost the firm's value based on the rush for shares in expectation of the dividend payment.

Dividend Irrelevance Theory

The major proponent of the dividend irrelevance theory is the hypothesis proposed by Miller and Modigliani (1961). They opined that the payment (or non-payment) of dividends does not have an impact on firm value. They argued that if a

company has a given investment decision over time, the dividend pay-out ratio does not affect shareholders' wealth (Alajekwu & Ezeabasili, 2020). They also argued that the major factor affecting the value of a firm is its earnings or its investment policies and, as such, the split of earnings between dividends and retained earnings is not necessary and will not alter the firm's stock value (Black, 1996; CFA, 2018). The dividend irrelevance policy is premised on a number of assumptions which include: A perfect capital market with balanced investors and perfect certainty of the ruling market prices (Olowe, 2019). According to Miller and Modigliani (1961), in a perfect market, there is no buyer or seller in the market with large enough transactions to impact the ruling price. Hence, all buyers and sellers have equal and free access to information regarding factors that affect the ruling price as well as all other relevant characteristics of the shares; that brokerage fees and transaction costs are not incurred when investors buy and sell securities on the exchange and will not impact the value of the shares; that tax differentials are not applicable, either between distributed and undistributed profits, or between dividends and capital gains (Araoye et al., 2019). This assumption implies that the same tax rate applies to dividends and capital gains (Agila & Jerinabi, 2018); that on the rational behaviour assumptions, Miller and Modigliani (1961) explained that investors will always prefer to have more wealth rather than a reduction in their wealth. Hence, they are indifferent as to whether their increase in wealth will take the form of cash payments or an increase in the market value of their shares (Koleosho, Akintoye & Ajibade, 2022). There is perfect certainty among investors on firms' future investment plans and future profit positions; and that there is no difference between a dividend-paying firm and a non-dividend-paying firm from a market value perspective as long as they are within the same risk class.

The dividend irrelevance theory has been heavily criticized by various scholars based on the assumptions of a perfect market, tax effects and transaction costs. The argument against the theory is that trading of shares on the exchange will always come with transaction costs, tax effects, and bankruptcy costs (Alajekwu & Ezeabasili, 2020). Miller and Modigliani (1961) responded accordingly on the issue of tax shield and bankruptcy costs, stating that the theory of dividend irrelevance remains a puzzle, globally and more so in Kenya.

Conceptual Framework

According to Alajekwu and Ezelabasili (2020), a conceptual framework is a logically developed, described and elaborated network of interrelationships among variables in a scenario being investigated. For purposes of this study, share price volatility was the dependent variable while dividend pay-out, dividend per share, dividend yield and earnings per share were the independent variables. The relationship of these variables was as indicated in the conceptual framework below:

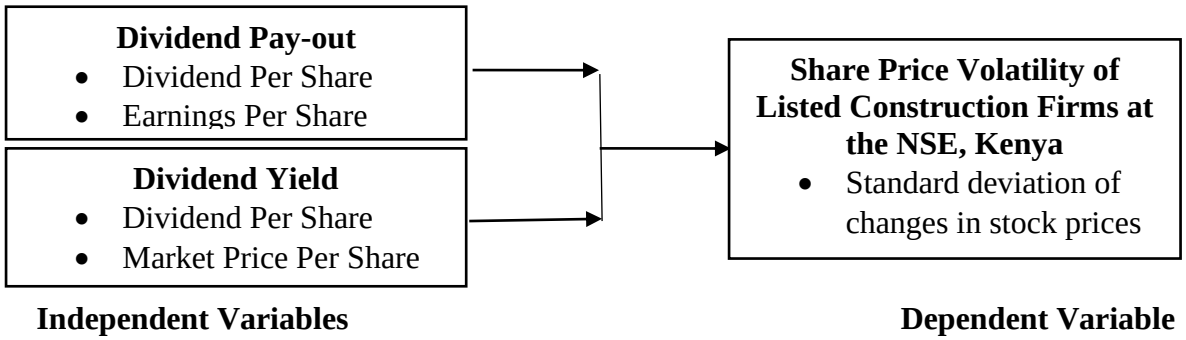

Figure 1: Conceptual Framework

Empirical Review

Dividend Pay-out and Share Price Volatility

The dividend pay-out was measured by the dividend pay-out ratio which is the ratio of the total amount of dividends paid out to shareholders relative to the net income of the company (Abu & Emmanuel, 2023). This meant that dividend pay-out ratio was calculated by dividing the total dividend to the net profit of every stock (Okolie & Ordu, 2021). According to Robert (2019), the pay-out ratio is a key financial metric used to determine the sustainability of a company's dividend payments. This is because the amount that is not paid out in dividends to stockholders is held by the company for growth, while the amount that is kept by the company is called retained earnings. In addition, pay-out ratios that are between 55% to 75% are considered high because the company is expected to distribute more than half of its earnings as dividends, which implies less retained earnings. A low ratio may indicate that the company is using much of its earnings to reinvest in the company in order to grow further. Similarly, a high pay-out ratio may also indicate a willingness to share more of the company's earnings with shareholders.

A comparable study was conducted in Nairobi between 2011 and 2020 using six insurance firms quoted on the Nairobi Stock Exchange, and it was discovered based on the regression analysis that dividend pay-outs influentially decide the share price value (Joseph & Symon, 2022). It was inferred the results that dividend policies ought to be significantly considered by the insurance companies because of their possibilities to affect the price of shares by making the price of the stock either increase or decrease depending on the dividends pronounced by the firm.

Augustine, Odum, Omeziri, and Chinedu (2019) investigated the relationship between dividend pay-out ratio and the value of brewery and beverage companies quoted on the Nigerian Stock Exchange (NSE) along with other components that influence the value of the firm. Cash holding, profitability, company size, leverage and dividend policy ratios were viewed as the elements influencing the value of companies. OLS regression analysis was applied to secondary data spanning 2008 – 2017. The result showed that profitability and leverage ratios have a critical positive influence on the companies' value.

Adopting Panel least square regression technique, Alfred, Vincent & Jessie (2019) evaluated the dividend policy influence on the prices of stock of ten consumer goods companies on the Nigerian stock exchange. The secondary data were gathered from the financial statements of the firms for the 2013 to 2017 period, and the result of the analysis showed that dividend yield did not significantly and favourably influence the market price per share; earnings per share and dividend pay-out ratio significantly influenced market price per share while net asset per share showed a non-critical positive effect on the market price per share. The study concluded that the policy of dividends can affect the prices of stock in the consumer goods sector and that, in Nigeria, the irrelevancy theory of dividends does not produce results.

Aivazian, and Cleary (2023) maintained that firms are more likely to raise their dividends if they are large and profitable. Their studies proved that the profitability is positively related to the dividend pay-out ratio. Profitable firms with more stable net earnings can afford larger free cash flows and therefore pay larger dividends. Velnampy, Nimalthasan and Kalaiarasi (2021) noted that dividend policy measures are not significantly correlated with dividend pay-out as dividend policy and earnings per share, return on equity and return on assets as firm performance measures. Investment decisions are expected to dovetail into corporate performance and the growth in earnings over time, and this is what affects a company's shares (De Villiers, Apopo, & Phiri, 2020). The key aspect of the pay-out ratio has been established by various studies

as crucial in the determination of the value of a company.

Dividend Yield and Share Price Volatility

Dividend yield is a financial ratio that indicates how much a company pays out as dividends each year relative to its share price (Paulo & Pedro, 2018). This implies that dividend yield represents a proportion of dividend paid by a firm and can be calculated by dividing the monetary value of dividends paid in a given year per share of stock held by the monetary value of one share of stock. Dividend yield can be seen as the financial ratio that measures the quantum of cash dividends paid out to shareholders relative to the market value per share. This, however, makes investors view companies that have paid out significant dividends for an extended period of time as safer investments, as a dividend yield of a company is always compared with the average of the industry to which the company belongs.

Ordu, Enekwe and Anyanwaokoro (2023) suggested that dividend yield does not have a significant positive effect on the market prices of shares of quoted firms in Nigeria using the empirical results arising from the panel least squares. Ball, Brown & Finn (2019) studied the relationship between dividends and stock price in Australian stock market. The study found significant relationship between stock prices and dividend yield in the following year after dividend payment. Hussainey, Mgbame and Chijoke-Mgbame (2021) found positive relation between dividend yield and stock price using ordinary least square. The study concluded that dividend yield exert significant effect on firms stock prices Ebire (2018) on effect of dividend policy on the performance of listed oil and gas firms in Nigeria explored the statistical test tool of OLS model and found that dividend yield has a significant but negative effect on earnings per share. Based on this, the study therefore recommended that oil and gas firms willing to maximize shareholders wealth should pay higher dividends. Magnusson and Enebrand (2020) results showed that the stock price of high dividend yields firms is more dependent on financial performance compared to low dividend yield firms. However, an overall positive correlation is found between stock price and financial performance using regression model.

Share Price Volatility in the Listed Construction Firms, Kenya

The market or share price of any entity refers to the value per share of the entity at the end of each trading day. While the market prices change during any trading day, the price at the close of trading on any particular day represents the price at the end of that day (Koleosho, Akintoye & Ajibade, 2022). From a total value perspective, when the value per share is multiplied by the number of outstanding shares in any particular period, it gives the market capitalization. The market price of shares is determined by the forces of demand and supply at the end of each trading day. Market price per share is the value of the equity shares as quoted on the securities exchange daily (Nduta, 2019).

Market price volatility is sometimes referred to as stock price volatility and is the degree of change in the price of companies' shares due to various information released to the market, thereby making it difficult to ascertain what the future price will be. Share volatility will be measured using the standard deviation of changes in stock prices (Profilet & Bacon, 2023). Alajekwu and Ezeabasili (2020) believe that the volatility of the price of shares will vary greatly over time, thereby making the future price difficult to determine. Hence, the lower the volatility of a given stock price, the greater its attraction to both current and potential investors.

Rajni and Mahendra (2017) highlighted a couple of negative implications of stock price volatility include that which affects consumers spending. A fall in stock prices will weaken consumer confidence. Stock price volatility may also affect business

investments, and economic growth directly. Similarly, a rise in stock price volatility can often be interpreted as a rise in equity and thus a shift of funds to less risky assets. This move has been known to lead to a rise in the cost of funds to firms and, thus new firms (new entrants) might bear this effect as investors turn to the purchase of stocks in mainly well-known firms (Osundina, Jayeoba & Olayinka, 2021).

Most often, stock market price volatility tends to rise when new information is released into the market, though the extent to which it influences price changes is a function of the relevance of that new information as well as the degree to which the news surprise investors (Osundina, Jayeoba & Olayinka, 2021). Stock market price volatility, as a result, is a good indicator for capturing the market trends as an increase or decrease in volatility results from changes in investor's reaction in the marketplace.

Critique of Existing Literature

Previous research on dividend policy and share price volatility has been quite scarce. In their study, Singh and Tandon (2019) showed that dividend yield has a negative effect on market share prices. They concluded that dividend payment increases the stock's market price, which decreases the dividend yield, and advised shareholders to take the dividend yield that the stock offers into account rather than the full dividend payment per share. Moreover, they conclude that dividend distribution raises share prices while dividend policy has an impact on market share prices.

Emeka and Ogochukwu (2021) looked at the impact of dividend policy on the share prices of ICT companies in Nigeria. On panel data, the Ordinary Least Squares (OLS) method was employed. The findings showed that dividend pay-outs, dividend per share, and dividend yield have a significant and positive impact on a company's stock price. They concluded that a company's dividend policy could affect the share price as well.

According to Ohiaeri et al. (2019), the more profits a firm generates, the more money it keeps for itself. According to the argument that increasing the retention ratio makes stock prices go down, allocating earnings to the company's internal needs can limit the distribution of dividends that investors don't like because their return on investment goes down and share prices go down.

According to Sehran et al. (2018), good policies in Pakistan boost market confidence and increase market share, both of which result in favourable business circumstances. Businesses should focus on their dividend policies depending on their results in order to gain the trust and attention of investors. Regular dividend payments improve the company's overall performance, increase its market share, and make it more likely that investors stay with the company. However, a company's profitability has a considerable negative effect on share prices. Since a rising or high share price shows that a company is getting stronger and making more money, managers are told to make sure that the businesses they run are profitable to attract new investors. However, these studies were carried out in in countries far away from the scope of this study. They didn't also cover the share price volatility which will be the main focus of this study. This study therefore examined the influence of dividend policy on share price volatility of listed construction sector firms in Kenya by focusing of dividend pay-out, dividend yield, and dividend per share and earnings per share as the study objectives.

Research Design

A research design is a framework or a blue print for conducting research. It provides a clear plan on how the research will be conducted and helps the researcher in sticking to the plan (Mugenda & Mugenda, 2019). This study adopted a correlational research design while dealing with the research objectives. The research methodology was significant for obtaining required data that was utilized to obtain information concerning the current status of

phenomena with the goal of characterizing "what exist" with respect to study variables (Luganji & Miroga, 2023).

Target Population

Koleosho, Akintoye and Ajibade (2022) defined target population of a study as the entire elements or individuals over which the study findings are to be generalized. Target population, according to Creswell and Poth (2017), is the group of individuals or participants with specific attributes of interest and relevance. The study targeted the five listed firms at the NSE, Kenya, under the construction sector whose 5-year audited financial statements period running from 2019 to 2023 was the focus of the study.

Sample Size and Sampling Technique

Schindler and Orang (2022) defined a study sample as the subjects from which the required information for the study is obtained. There are no recommended formulae to be used for the determination of the sample for any study. Mugenda and Mugenda (2019) defined sample size as the number of items involved in the study as the study respondents. They further defined sampling technique as the scientific process through which the sample elements are selected. Sampling technique is the method or mode of selecting a sample from the population (Mrefu & Gichure, 2020). Since the target population was only five listed firms, no sampling was required but instead a census method was employed when analysing the audited financial statements in arriving at detailed and well informed conclusions.

Data Collection Instrument

The study used secondary data downloaded from the audited and published financial statements of the five firms listed at the NSE, Kenya. For the 5-year period under study, as provided by the CMA. Both qualitative and quantitative data used by this study was obtained from the audited financial statements prepared in accordance with the International Financial Reporting Standards (IFRS), the data collection sheets were as data collection instruments.

Data Analysis and Presentation

The researcher used Microsoft Excel and the software of Statistical Package for Social Science (SPSS; version 29) in analysing the data. Data output from the software was analysed using descriptive and inferential statistical tools. Correlation and Regression analysis were used to determine the relationship between the study variables.

The multiple linear regression model took the following format;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where;-

Y	-	Share Price Volatility of Listed Construction Firms
β_0	-	Value of share price volatility when all other independent variables are held at zero.
β_1 and β_2	-	Coefficients of independent variables.
X_1	-	Dividend Pay-out
X_2	-	Dividend Yield
ε	-	The error term

General Information

The main objective of this study was to examine the influence of dividend policy on the volatility of stock prices of construction firms listed at the Nairobi Securities Exchange (NSE), Kenya. The study objectives addressed in the literature review and examined in this chapter encompassed; dividend pay-out, and dividend yield and share price volatility of listed construction firms at the NSE, Kenya The firms examined by the study included; Bamburi cement Ltd, East African Cables Ltd, East African Portland cement Ltd, Crown Paints (K) Ltd. While Athi River Mining Ltd, was reported to have been suspended from the NSE indefinitely w.e.f eighth of May year 2020 and required data in relation to the firm was not available for analysis. This left

the number of listed and operational construction firms at the NSE at four.

Pilot Study

The pilot study was carried out to test the reliability and validity of the research instrument as shown below.

Reliability of the Research Instrument

The reliability of an instrument is the degree of consistency with which a research instrument measures whatever it is intended to measure and yields consistent results. It refers to the extent to which findings can be replicated by another researcher (Magnusson & Enebrand, 2020). To test the internal consistency of the items listed on the instrument used, the Cronbach alpha coefficient was computed. Cronbach's alpha is a statistic coefficient (a value between 0 and 1) that is used to rate the reliability of an instrument such as a questionnaire or a data collection sheet (Cronbach, 1951). The results obtained from the reliability test were presented in table 4.3 below;

Table 1: Reliability Statistics

Variables	Number of Items	Cronbach alpha	Comment
Dividend Pay-out	5	.722	Reliable
Dividend Yield	5	.737	Reliable
Share Price Volatility	5	.761	Reliable

The findings of the reliability test were; share price volatility had a coefficient of .761; dividend pay-out .722, and dividend yield .737. According to Koleosho, Akintoye and Ajibade (2022), when all variables depict the value of Cronbach's Alpha above the required value of 0.7, then the variables should be accepted and considered reliable accordingly. It was therefore concluded that the scale used in this study was acceptable for use in capturing the constructs for the study.

Validity of the Research Instrument

Data was collected from the NSE handbooks of each year and cross checked with the financial reports from the firm's websites. The study found that the two data sources provided similar data therefore giving the study no reason to doubt the data collected and providing the data as valid. The data was able to meet the study needs and therefore was considered reliable for the study.

The study conducted a factor analysis to extract the items that were fit for the study. Factor analysis is a method of data reduction by seeking underlying unobservable (latent) variables that are reflected in the observed variables (manifest variables). Badruzaman (2020) opined that correlation matrix is the point for factor analysis purposely for checking the strength of the inter-correlations among the factors/variables.

Research Findings

Summary of Descriptive Analysis

The summary of the descriptive statistics from the analysis was presented in the table below;

Table 2: Descriptive Statistics

Variable	N	MIN	MAX	MEAN	STDEV
Dividend Pay-out	20	-0.70	1.04	1.17	0.35
Dividend Yield	20	-0.11	2.31	1.37	1.50
Share Price Volatility	20	1.20	3.30	1.69	1.16

The table above revealed the descriptive statistics of the data analysis. From the results, Stock Price Volatility (SPV) has a mean value of 1.69, minimum value of 1.20, and maximum value of 3.30. This showed that the share price volatility experienced

moderate volatility within the study period. The standard deviation of 1.16 was considerably low and suggested that market price volatility across the sample size exhibited a wide dispersion around the mean.

The Dividend Pay-out Ratio (DPOR) variable had a mean value of 1.17, a maximum value of 1.04 and a minimum value of -0.70. With a standard deviation of 0.35 which showed a moderate dispersion from the mean. The Dividend Yield (DY) variable had a mean value of 1.37, a maximum value of 2.31 and a minimum value of -0.11. The standard deviation of 1.50 which showed a significant dispersion from the mean.

Correlation of Variables

The study data analysis carried out included the testing of the strength of the association between the variables using the Pearson's' correlation matrix and the findings presented in a table as shown below:

Table 3: Correlation Matrix

Variables	SPV	DPR	DY
SPV	1.000		
DPR	-0.111	1.000	
DY	-0.318	-0.001	1.000

From the results, dividend pay-out ratio, and dividend yield had a negative association with the share price volatility of the construction firms listed on the NSE, with correlation values of -0.111 and -0.318, respectively. This implied that increases in dividend pay-out ratio, and dividend yield led to decreases in share price volatility of the listed construction firms. This implied that dividend pay-out ratio, and dividend yield influenced changes, at different magnitudes, in the share price volatility of the listed construction firms at the NSE, Kenya, and overall, dividend policy significantly influenced share price volatility of listed construction firms at the NSE, Kenya.

These findings aligned with the empirical report from studies by Egbeonu, Paul-Ekwere, and Ubani (2016); Abu and Emmanuel (2023); Alashe and Ishola (2021); Koleosho, Akintoye and Ajibade (2022). This meant that a decreased dividend pay-out would cause more stock market volatility thereby heightening the riskiness of the construction firms' shares traded. The findings of this study were inconsistent with the dividend theory of the bird-in-the-hand, which expected that a high dividend paying firm would reduce the risk or limit uncertainty about future income flows for shareholders.

Model Summary

The model summary was extracted from the analysed data where the coefficient of determination (R-Square) was obtained. The R-Square is a measure of the explanatory power of the independent variables explaining the dependent variable.

The model summary was as presented in the table below:

Table 4: Model Summary

Model	R	R_Square	Adjusted R_Square	Std Error of the Estimate
1	.6378[a]	.4068	.4039	1.01568
a. Predictors (Constant), Dividend Pay-out and Dividend Yield				

According to the model's summary results, share price volatility had an R^2 (coefficient of determination) of .4068. The research findings, therefore, indicated that 40.68% of the variations in the dependent variable (share price volatility) were explained by the independent variables (Dividend Pay-out and Dividend Yield). However, 59.32% of the variations in share price volatility remained unexplained, suggesting that other factors beyond the scope of the study influenced these variations. From the findings, it was concluded that dividend pay-out ratio and dividend yield as study variables had a significant influence on the share price volatility of the listed

construction firms at the NSE in Kenya as measured by the standard deviation of changes in stock prices.

Goodness of Fit Test

The study carried out an F-statistic (ANOVA) test as a measure of the goodness of fit of the model. The ANOVA results were then extracted from the analysed data and presented as shown below;

Table 5: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.375	4	6.594	3.515	.000[b]
	Residual	28.142	15	1.876		
	Total	65.568	19			
a. Dependent Variable: Share Price Volatility						
Predictors: (Constant); Dividend Pay-out and Earnings Per Share						

The ANOVA results were presented in the table above. The results indicated that the regression model adopted by the study predicted the outcome variable. This was evidenced by the F-statistic value (F=3.515) which was greater than the F-critical value (F=3.06) at a p-value of .001 which was less than the .05 significance level which implied that the application of the model was significant enough in predicting the dependent variable (Share Price Volatility) measured by the standard deviation of changes in stock prices.

Multiple Regression Model

The study adopted a multiple regression model in which the relationship between the dependent and independent variables was measured. The results were presented in a table as shown below:

Table 6: Dividend Policy and Share Price Volatility

Dependent Variable: SPV				
	Coefficient	**Driscoll- Kraay Standard Error**	**t-test**	**Prob**
Constant	4.658	1.0537	6.5281	.0000[a]
DPR	-.036	.0464	1.7240	.0000
DY	-.203	.0332	2.7130	.0015
Adjusted R^2	.1917			
Wald Test	32.89(0.000)			
Hausman Test	2.65 (.709)			
Breusch-Pagan RE Test	33512.02 (.000)			
Hetescedasticity test	1707.7(.000)			
Serial Correlation Test	1075.76 (.000)			
Perasan CSI	8.44(.000)			
Observations	20			

Notes: The dependent variable is share price volatility (SPV), while the explanatory variables were dividend pay-out ratio (DPR) and dividend yield (DY).

The table above reported the regression results of the dividend policy and share price volatility of the listed construction firms at the NSE, Kenya. The following regression equation was established from the analysis:

Model: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$

$Y = 4.658 - .036X_1 - .203X_2$

In addition, there was evidence that the dividend pay-out ratio had an insignificant influence on the share price volatility of the listed construction firms in Kenya as evidenced by a t-calculated value which was in between the t-critical value ±1.96 (DPR = -.036, t-test = 1.7240, $p < 0.05$). This implied that the dividend pay-out ratio was an insignificant factor that influenced share price volatility of the listed construction

firms. In sharp contrast, there was evidence that dividend yield had a negative and significant influence on the share price volatility of the listed construction firms in Kenya as evidenced by t-calculated value greater than the t-critical value (DY = -0.203, t-test = 2.7130, p <.05). This implied that dividend yield was a significant factor that negatively influenced changes in the share price volatility of the listed construction firms in Kenya. Concerning the magnitude of the estimated parameters, a one unit increase in the dividend pay-out ratio led to a .036 decrease in the share price volatility of the listed construction firms, a one-unit increase in dividend yield led to a decrease of .203 in the share price volatility of the listed construction firms in Kenya respectively. The model was concluded to be paramount in the provision of relevant information for the prediction of share price volatility from the independent variables (Koleosho, Akintoye & Ajibade, 2022).

CONCLUSION

The study drew conclusions based on the findings regarding the influence of independent variables; dividend pay-out and dividend yield, on the dependent variable, share price volatility of construction firms listed in Kenya. The study ascertained that there was a causal relationship between dividend policy and share price volatility of the construction firms listed on the NSE, Kenya, over the period of the study. This was evident from the insignificant relationship between dividend pay-out ratio and share price volatility of the listed construction firms on the NSE. Hence, the higher the pay-out ratio, the lower the expected volatility from the daily share prices. Dividend yield had negative but significant influence on the share price volatility of the listed construction firms in Kenya. Hence, the actual dividend yield (DY) did cause significant negative volatility in the share prices of the listed firms between 2019 and 2023.

Overall, the study found that the dividend policy influenced share price volatility of the listed firms at the NSE. When firms pay out more of their earnings as dividends, the shareholders' wealth fluctuate negatively, a high dividend pay-out ratio influences high external financing to the firm thereby increasing the equity ratio of the listed construction firms (Karlsson & von Renteln, 2021).

Recommendations

From the research findings, the study drew the following recommendations:

With dividend pay-out having an insignificant influence on share price volatility, this adversely affect decision making of potential and existing investors towards investing in the listed firms in the construction sector. Investors can however choose to invest in firms with high dividend pay-outs. The payment of dividends will increase the volatility of the share price and will generate higher cash flows to offset debt exposure.

Declaration by Authors

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