



An Evaluation of Number of Shares Outstanding, Ownership Structure and Firm Size on the Controlling Effect of Dividend Policy on Shareholders Wealth Volatility of Some Selected Companies Listed on the Nigerian Exchange (NGX)

**Adekunle Orelope Koleosho^{a*}, Ishola Rufus Akintoye^a,
Ayodeji Temitope Ajibade^a, Ayooluwa Olotu Ajayi-Owoeye^a
and Peter Oludare Abe^a**

^a *Department of Accounting, School of Management Sciences, Babcock University, Ilishan Remo, Nigeria.*

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJEBA/2022/v22i730575

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/84337>

Original Research Article

**Received 12 January 2022
Accepted 15 March 2022
Published 21 March 2022**

ABSTRACT

Shareholders wealth volatility has exhibited different patterns in different global exchange markets including the Nigerian exchange. Unravelling attempts of the possible causes of this volatility have been made, as well as how the aforementioned are mitigated. These attempts are due to their implications on share valuation as well as the need to reduce market manipulations. Studies have shown that dividend decision has been one of the major puzzles yet unresolved regarding shareholders wealth volatility and there have been fewer studies in this regard, especially in developing economies like Nigeria. This study, therefore, examined the effect of dividend policy on shareholders wealth volatility of selected companies listed on the Nigerian Exchange. The study adopted ex-post facto research design. The population of the study is 162 companies listed in the Nigerian Exchange as at 31 December 2020. The study sample consisted of 49 companies randomly selected. Data for the period 2010 - 2020 were collected from the NSE, and

companies' data on the Bloomberg Terminals and their official websites. Descriptive and inferential statistics were used to analyze the data. Inferential statistics resulted from Regression and Correlation analysis. The study found that the dividend policy exerted a statistically significant effect on Shareholders wealth Volatility ($Adj.R^2 = 0.303$, $W_{(3, 2156)} = 95.82$, $p = 0.000$). Firm Size, Number of Shares Outstanding and Ownership Structure jointly and significantly controlled the effect of Dividend Policy on Shareholders Wealth Volatility ($\Delta Adj.R^2 = 0.114$, $W_{(6, 2156)} = 320.41$, $p = 0.000$). The study concluded that dividend policy affects shareholders' wealth volatility. The study recommended that the companies should focus more on the payout ratio while investors should go for entities with constant dividend payout ratio. In addition, it further recommended that policy owners should enforce adherence to the minimum free float requirements of the Nigerian Exchange.

Keywords: Dividend; Earnings; leverage; market capitalization; Nigeria exchange; number of shares outstanding; ownership structure; volatility.

1. INTRODUCTION

The expectation of shareholders for investing in corporate organizations is to ensure that they are able to maximize their returns and hence the reason for investing for a long time horizon. It is expected that as companies run their business activities the result of any investment decision taken by the business managers must be to increase shareholders wealth [1]. Announcement of corporate actions by companies over the last decade has been met with various reactions by both current and potential shareholders. These reactions have brought about erosion of shareholders wealth while in some instances we have seen different appreciation of the values of the shareholders. With earnings announcements, where companies have had a positive result, the expectation from a market reaction has been mixed. Earnings, relating to the book values of the shareholders return should drive various reactions. Corporate organizations have declared below par results with their share price still at very high levels [2] and the question remains what drives the volatility of the wealth of both current and potential shareholders.

Shareholder's wealth relates to the summation of the benefits due to the investors over a period. This wealth can be maximized or minimized where information about the company's investments is free or not freely available depending on the quality of such information. The primary objective of the firm is to create value or wealth for the owners of the business and this should maximize their returns over a period [3,4]. Expected improvement in shareholders' wealth will be directly influenced by the performance of the company periodically. The performance of the company is driven by the investment decision taken over a period. These

investment decisions are a function of the information available for such investments. When managers are evaluating such investments, they do not only consider its accuracy but its availability to the public [5]. This will enable the investors to ascertain whether this has been factored into the price of the financial assets or not [6]. Hence, the expectations of shareholders over time is the maximization of their returns annually as well as the continued sustainability of the business. Business sustainability centers on the going concern nature of the business.

The dividend decision that ensures the shareholders have a return on their capital invested over the period has been a subject of discussion over the decades and remains a puzzle unresolved. The payment of dividends to the shareholders has been expected to drive the perception of the shareholders' value of listed companies on the stock exchange market [7]. There is a general misconception that the shareholders majorly finance projects and investment projects over time. The financing decision is not only centered on the equity stakeholders but also sometimes by the preference capital and debt capitals. These groups of investors have their returns before the equity stakeholders' dividends are paid. The shares listed on the exchange are for the equity holders as they are the risk bearers. While there is no clear direction on the payment of dividends by the regulators, corporate organizations have adopted various policies to ensure dividend paid reflects the activities within the organization [1].

1.1 Statement of the Problem

There have been various researches on dividend theories with a focus on corporate performance, leverage, as well as shareholder's perception

with mixed conclusions. Agila and Jerinabi [1], Balagobei and Selvaratnam [8], and Ehikioya [9] reviewed the relationship between dividend policy and share prices with different conclusions on the impact of dividend policy on the performance of the entities. Agila and Jerinabi [1] concluded that dividend policy has an impact on firm performance and shareholders wealth focusing more on dividend per share and Earnings Per share. Sijol and Basit (2016) were inconclusive on the impact of shareholder's wealth on the manufacturing industries listed on NASDAQ. Farrukh, Irshad, Khakwani, Ishaque, and Ansari [10] and Ojeme, Mamidu, and Ojo [11] also concluded on the dividend relevance theory and its impact on shareholders wealth.

The Nigerian capital market had experienced different fluctuations over the period as various information are being released by corporate organizations. The various accounting information embedded in the financials of the companies as they are released to the public is subjected to various information which in turn affects the volatility of the share prices [3]. Such pieces of information include earnings performance, dividend expectations, financial leverage, growth in total assets as well as all other pieces of information that can be depicted from the financials. Other information which includes the volume of outstanding shares of the companies are also factors that are considered by both potential investors and existing shareholders. Most of these pieces of information are expected to cause market reactions based on the status of the information released [12].

In the last ten years (2010 to 2020), shareholders stock performance has measured by the All-Share Index (ASI) has shown a great level of volatility. In 2008, the ASI was 66,371.20 but this has dropped to 20,838.90 in April 2010. The ASI index got to a low of 19,732.34 as at August 2011 and 20,669.38 as at April 2020 [13]. The various changes in ASI is a reflection of the value of the shareholders wealth. While in 2020, the Nigerian Stock Market gained about 50% as measured by the ASI, the problem of the high volatility in the shareholders wealth remains a course of concern especially to portfolio investors and clients investment decisions.

To protect shareholders wealth from manipulation by few holders, the Nigerian Exchange introduced the free float requirements that all listed entities must adhere to. The free float is the percentage of a publicly listed

companies shares that is available to the public and no level of restriction on it [14]. Despite the introduction of the free float regulations for many years, some companies did not comply to this and as such the benefit that could have been attributed to shares availability to the general public could be subject to manipulation by the few holders of the shares. This creates a problem on the number of shares available to the public for trading and as such could negatively impact the shareholders wealth [15].

Various studies carried out by various researchers have had various conclusions on the relationships between dividend elements and shareholder's wealth. Alajekwu and Ezeabasili [16] find a mixed result between dividend policy proxy and stock market volatility and as such recommended the non-inclusion of dividend in the valuation of shareholders wealth as well as stock riskiness. The conclusions by Araoye, Aruwaji and Ajayi [17] and Uniamikogbo, Ezenwa, and Bennee [18] were also mixed from the variables with the overall conclusion of dividend irrelevance theory on stock price volatility. While Araoye et al [17] concluded that dividend per share is the major determinant, the dividend payout ratio showed a negative effect on stock price volatility thereby making the conclusion a mixed result. This was also the case with Osakwe, Ezeabasili, and Chukwunulu [18] where the overall conclusion did not agree with some of the variables in the study. The dividend yield exerted a negative effect on the market price per share which should be a significant factor in the conclusion of the study though dividend payout had a positive impact. From an investor analysis perspective, the important factor is always the dividend yield rather than the absolute value paid out as dividend.

The above studies, as well as other studies that have been reviewed on dividend policies and stock price volatilities, focused majorly on the share price as the only dependent variable in ascertaining its effect on shareholder's wealth whereas the definition of shareholder's wealth encompasses share price of companies. There has been dearth of studies looking at the impact of the dividend on other measures of shareholders' wealth like the changes in the volumes of trades as well as the changes in earnings (EPS) or changes in earnings volatility. The above gave rise to different gaps around the impact of dividends on the shareholders wealth volatility of companies listed on the Nigerian

Exchange (NGX). What effect has the various proxies like dividend yield, dividend payout, leverage on the volatility of shareholders' wealth in Nigeria? The impact of the number of shares available to be traded as well as the ownership structure at any given period has not been fully explored to know its effect on the volatility of shareholders' wealth. These gaps necessitated the need for a follow-up study on the effects of dividend policy on the volatility of shareholders' wealth in some selected listed companies on the Nigerian Exchange (NGX), which was the main thrust of this study.

1.2 Objective of the Study

The main objective of this study is to evaluate the effect of dividend policy on shareholder's wealth volatility of some selected companies listed on the Nigerian Exchange (NGX). The specific objectives are to:

1. Ascertain the effect of dividend policy on shareholders wealth volatility of some selected companies listed on the NGX;
2. To establish the controlling effect of number of shares outstanding, ownership structure and firm size on the relationship between dividend policy and shareholder's wealth volatility.

1.3 Research Questions

The following research questions were answered in this study;

1. To what extent does dividend policy effect shareholders wealth volatility of some selected companies listed on the NGX?
2. To what extent does number of shares outstanding, ownership structure and firm size control the relationship between dividend policy and shareholder's wealth volatility?

1.4 Hypotheses

The following hypotheses were tested in the discourse of the study;

- H₀1: Dividend policy has no significant effect on shareholders wealth volatility of some selected companies listed on the NGX
- H₀2: Number of shares outstanding, ownership structure and firm size has no significantly controlling effect on the relationship between dividend policy and shareholders

wealth volatility of some selected companies listed on the NGX.

1.5 Significance of the Study

Dividend relevance impact has been a major subject of discussion in the previous years and with various research trying to ascertain how it affects the shareholder's wealth from various perspectives. This study followed past studies in this area with an emphasis on dividend policy and shareholder's wealth volatility. Also, the Nigerian economy entered a second recession in five years due to the impact of the COVID-19 pandemic with the stock market experiencing various volatility across the periods. This study would be beneficial to the economy, researchers in the areas of study, students, equity analysts, macro-economic analysts, and the Nigerian Exchange in the following ways:

The researchers in the areas of study would benefit from the study through the understanding of the nature of the Nigeria Capital market in accordance with the impact of various corporate actions announcements on the stock price volatility. Equity analysts would be able to project the impact of the effects of dividend policy on shareholders' wealth volatility over the period. The study will be significant to the financial analysts in projecting the direction of stock prices. Corporate organizations would be able to determine the impact of dividend payments expectation and other corporate actions expectations on the shareholder's wealth. The information efficiency of the market would be determined via the expectation of dividend and earnings payment and the companies would know when to release appropriate information to the market to ensure stakeholder's confidence over the period.

Shareholders and stakeholders would be able to ascertain how various corporate action expectations affect the worth of their investments over a period of time and this would assist them in making adequate decisions whether to hold or divest investments. The Nigerian Exchange management would be able to ascertain how stock price volatility can be used to predict the efficiency of the NGX over the period. The NGX would also know what policy changes are to be put in place to drive market transparency around the announcements of corporate performance to avoid any manipulations. The impact of the number of shares outstanding from a liquidity perspective on the volatility of stock prices would

be ascertained and therefore drive policy reactions.

2. REVIEW OF LITERATURE

2.1 Conceptual Review

2.1.1 Shareholders Wealth Volatility

Shareholder's wealth volatility cannot be explained without looking at what shareholder's wealth means and how it is derived over time. One of the purposes of setting up a business is for profitability which in turn creates value for the shareholders. Company finance theory premised its assumptions of creating value for shareholders as the primary objective of the firm [20]. Where value is the main purpose of financing a company, then the maximization of such value will be at the forefront of the risk-takers who are the shareholders of the firm. The value of the business is related to the value of the ordinary shares owned by the equity holders and traded on the floor of the exchange for companies listed [15]. The company exists for profit-making. The residual profit remaining after the distribution to other stakeholders belongs to the ordinary shareholders. Brealey and Myers [21] opined that any undistributed wealth belongs to the equity shareholders.

Shareholders want to maximize their shareholdings every time and this is done through making investment decisions that will yield positive net present value. Brealey and Myers [21] and Cleary, Atkinson and Drake [22] believed that for the value of the shareholders to be maximized, it will always come back to the Net Present Value (NPV) of projects embarked upon by the managers. The shareholder's purchase shares because they want to earn good returns over time on their investment and they want that at low risk. Wealth maximization is a long-run view that resulted from the three major decisions of the managers – Investment decisions through positive NPV projects/capital investment, Financing decisions with the least cost financing strategy to maximize return and Dividend policy which is necessary to give back to the investors [5] and [20]. For shareholders' wealth to be maximized, the share price of the company must increase over time through sustained performance and information to the public. The information content of the proposed dividend by the company will go along away in affecting the worth of the shareholder's investment over the period [23].

At the end of each financial year, companies make announcements on the performance of the company during the accounting period. The performance is also accompanied by the statement of financial position as at the end of the period which shows the growth in the total assets or otherwise. The components of the financial statement are also accompanied by corporate actions in terms of earnings performance and dividend payments. The announcement of such information triggers trading in the value of the shares of the company and this can be positive or negative. The information content of the announcement of the corporate action cannot be underestimated as this could maximize or erode shareholders' wealth [24]. The basis of financial management and announcement of the information to the public is to the ultimate objective, which is to increase the value to the shareholders, is achieved [25]. With this objective of maximizing shareholders' wealth, the corporate managers are saddled with three decisions which are the investment decisions, financing decisions and dividend decisions [1]. With the investment and financing decision being embarked upon positively, the managers must finally take the dividend decisions or otherwise [25].

According to Christiana (2016) cited in Alajekwu and Ezeabasili [16], the risk of stock price changes will lead to stock market volatility and invariable impacts the shareholder's wealth either positively or negatively. This is why Alajekwu and Ezeabasili [16] see stock price volatility as the erratic fluctuation in the prices of securities traded on the stock exchange market. Shareholders' wealth volatility can further be explained as the "ups and downs" in the prices of securities during a time [26]. Overall, the shareholder's wealth volatility, this study looked at shareholders wealth from stock price volatility, earnings volatility and volume of shares volatility.

2.2 Dividend Policy

This study considered the proxies of dividend policy from dividend per share, dividend payout ratio, dividend yield and leverage.

2.3 Dividend per Share

The announcements of corporate financials in any period are expected to be accompanied by various corporate actions announcements. When the companies decide to pay dividends out to existing shareholders at a particular date, the

announcements will be accompanied by the dividend payment expectation. The unit or rate of dividend in naira amount expected to be paid on individual units of shares held is the dividend per share [27]. Dividend per share is stated as the total amount of dividend expected to be paid divided by the total number of shares in issue and ranking for dividend [28]. Dividend per share is expected to be constant all through the announcements period up to the next dividend period. Dividend is paid per time and not a fraction of the period under consideration [16].

2.4 Dividend Yield

The dividend yield is the rate of return to the market on the dividend declared by an organization. The dividend yield is a financial ratio that depicts how much the company pays out in the form of dividend to the existing shareholders [29]. When dividend is declared, the investors are majorly concerned about the return the dividend will bring back to them based on the prices at which the stocks were bought. As the prices change daily, the current yield on the dividend paid will change from the date the dividend was declared to the dividend closure date when the share price of the entity is marked down on the floor of the Exchange [30,9,20].

2.5 Dividend Payout Ratio

The payout ratio is the proportion of the profit after tax that is paid out as dividend to the existing shareholders as at the closure of the register. Dividend paid out is the fraction of the net income or profit after tax that an entity pays out as dividend to the shareholders [31]. The profit after tax can be retained completely, paid out to shareholders completely, or split between the retention and dividend at any period based on the organizations' dividend policy. Black [7] stated that dividend is very important in determining the fundamental value of the company's shares and as such companies should ensure that a part of the profit is paid out to shareholders for the value to be enhanced. Because of the signaling power of dividend as established by Gordon [32], the payout ratio, as well as the retention ratio, will depict whether the company has the potential to grow the earnings over time. In the dividend valuation model, the amount of dividend is very germane in the business growth potentials of the entity [21]. The dividend payout was however challenged by Miller and Modiglianni [33] where they opined that the payment of the dividend does not

influence the value of the company's shares in a perfect market scenario but the investment decisions over time. The investment decision is expected to dovetail into corporate performance and the growth in earnings over time and this is what affects the company's shares [34].

2.6 Financial Leverage

Leverage is the level of debt capital used in financing the business rather than injecting fresh equity into the capital structure [20]. It is an investment strategy of using borrowed funds or capital to increase potential returns. It also refers to the amount of debt a firm uses to finance assets. Leverage can be measured in terms of total debt to equity or net debt to equity. The effect of leverage indicates that stock volatility is negatively correlated to stock returns [35]. Leverage is part of the capital structure of the firm which Modigliani and Miller (1958) argue that capital structure has no impact on share value. In pecking order theory, debt financing (leverage) should be the secondary source of finance for a company as most profitable firms prefer to use retained earnings as a first step in financing their investment projects [36].

The use of leverage in the financing structure of companies has some determinants. These determinants include large firm size, growth in the firm's total assets, tangibility in the firm's assets to reduce the risk of bankruptcy [37]. The determinants assist in predicting how leverage impacts the performance of the companies and invariable the growth in shareholder's wealth in the long run. Shareholders most time have negative perceptions of the use of leverage in the capital structure as this can increase the bankruptcy cost of the business in the long run if the financial performance is not sustained [2]. The other risk involved in leverage is that when a firm incurs losses, this will cause greater volatility in earnings and as such affects the market price of the shares as firms will have to pay debt holders first before the equity shareholders [38].

2.7 Control Variables

This study considered three control variables which are firm size, ownership structure and number of shares outstanding.

2.8 Ownership Structure

Different investors own the company shares as the world has turned into a global village. The

ownership structure is the composition of a company's shares held by local and foreign investors. In each of the compositions, ownership is structured into local retails and local institutions. With the presence of the custodian business in Nigeria, foreign institutions can hold the shares of the companies based on their valuations. These holdings termed foreign portfolio investments from a macroeconomic perspective have a long way in influencing the volatility of stock prices [39].

According to the NSE [40] report on domestic and FPI transactions, the FPI increased by 149.84% as of 31st December 2014 to N1.539 trillion from N616 billion in 2007. Then it had decreased by 21% to N1.219 trillion as of 31st December 2018. Between 2007 and 2018, the performance of foreign investors in the market had increased by 97.89%. Over 14 years, the percentage of domestic contributions to the Nigerian capital market decreased by approximately 60% from N3.56tn in 2007 to N1.439tn in 2020 while that of foreign participation increased by about 19% from N616bn to N729bn [13].

2.9 Firm Size

When corporate organizations publish their periodic financial statements, one key focus by the investors is the growth of the firm from period to period. The firm size and asset growth differ from entity to entity and it is measured by the ability of the entity to possess different economies of scale to achieve operational efficiency [41]. With the growth in corporate profitability, it is expected that the size of the firm also improves. Firm performance and firm size are positively related as established from the profit made and the share of the market size over time [42]. This can also relate to the market capitalization of the company as listed on the exchange. Market capitalization refers to the total market value of a company's outstanding shares on the NGX. It is calculated as the number of outstanding shares multiplied by the market price per share of the company (NGX, 2018); [38]. The market capitalization of companies listed in the NGX has been on the increase when tracked from 2009 to date. Between 2009 and the end of 2014, total market capitalization has doubled from N7.03 trillion to N18.9 trillion. Specific to the Nigerian Stock Exchange, aggregate market capitalization appreciated by 17.5% as of June 2017 from the 2016 December position. As of June 2018, the total market capitalization of the

278 listed equities on the NGX was N23.99 trillion representing an increase of 4.7% from the December 2017 figures and 26.1% for the corresponding period of June 2017 [43].

2.9 Theoretical Framework

The works of various researchers on corporate dividend policy have led to various conclusions over time. Three theories were reviewed in this discourse which are Capital Market Efficiency Theory, Dividend Relevance Theory and Dividend Irrelevance Theory.

2.10 Dividend Relevance Theory

The theory was propounded by Graham and Dodd (1934) where they asserted that dividends will always influence the value of the firm. This theory is also called the Rightist Theory and advocated for a regular dividend payout ratio to influence the value of the firm [21]. The major supporters of this theory are Walter (1956) and Gordon [32]. Walter (1956) as cited by Brealey and Myers (1996); and Akintoye [31] assert that the model is based on the following assumptions:

The entity is financed strictly by equity only and all investors do not want any level of risk; All earnings are either paid out as dividend to the shareholders or retained for internal reinvestment and; the entity has a perpetual or lasting earnings stream [17]. Gordon [32] main argument centered on the fact that the payment of dividends to the shareholders is to increase the stock price on the floor of the exchange [28].

2.11 Dividend Irrelevance Theory

This was propounded by Miller and Modigliani's in 1961. They stated that dividend payment or not have no impact in the determination of the entity's value. They argued that if the company has a given investment decision over time, the dividend payout ratio does not affect shareholders' wealth [16]. Their argument centered around the firm earnings and investment decisions as one of the major factor that affects the value of the company and as such the split of profit after tax into dividend portion and retained earnings is unnecessary and does not change the firm's valuation (Black, 1996; Bhalla, 2013; [22].

The dividend irrelevance theory has some of the following assumptions. The first is that there exists a perfect market with potential and existing

investors having perfect knowledge of the ruling process [20]. The second assumption centered around the transaction costs when investing in the shares of the company as they opined that this is free including brokerage fees. Furthermore, the third assumption stated that there is no tax differentials on profits (distributable and undistributable) as well as dividends and capital gains [17]. The other assumptions are; investors are rational and will always consider growth in wealth rather than loss of their wealth. This increase in wealth can be in any form and not necessarily through dividend payments, [21]. Lastly, they argued that the market value of the dividend paying and non-paying firm will always be the same. The theory was condemned by various scholars on the grounds that market cannot always be perfect as well as tax and transaction costs will always be applicable on transactions executed by clients on the exchange market [16].

2.12 Efficient Market Hypothesis

Fama [44] postulated that stock prices should reflect all publicly made available information in an active and efficient market. In an efficient market where information is freely available, nobody is expected to outperform the market as the information is being released to the market [45]. Financial markets are thus efficient if prices of traded assets and securities are unbiased and reflect all available information to the public. This information is processed by the analysts, individuals and sophisticated investors at the same time and as such the potential of supernormal gains from the market would have been eradicated [46,47]. Fama [44] as part of his theory stated that the market can be weak form, semi-strong form and strong form efficient based on the nature of the available information and timing of such information. In all the forms of an efficient market, no one is expected to outperform the market in the long run. Hence as the price moves farther from the intrinsic value, it moves back towards the intrinsic values with the same proportion [48]. The efficient market hypothesis segregated into the weak, semi-strong and strong form efficiency describes to a greater extent the extent of the relationship among market stock prices behaviour. Information released to the market at intervals should have an impact on the determination of the fundamental values of the assets in an efficient market.

3. EMPIRICAL REVIEW

3.1 Dividend Policy and Stock Price Volatility

Hossin and Ahmed [49] examined the impact of dividend policy on stock price volatility within the Bangladesh capital market between 2009 and 2017. An experimental analysis approach was adopted using the fixed and random effects on the data collected from 10 companies. The analysis of the data showed that both cash dividends and stock dividends have a positive impact on stock price volatility. Koleosho, Adegbe, and Ajayi-Owoeye [17] examined whether there exists a significant relationship between dividend per share and market price per share from an informational efficiency perspective. Fifty-seven companies' data were collected for the period between 2008 to 2019 and the fixed-effects model was used to analyze the pooled data. The study concluded that dividend is an important factor in predicting the movement in stock prices.

Singh and Tandon [50] concluded that the focus of shareholders is not on the dividend payment but the dividend yield on the stock. In line with this, their study on the effect of dividend policy on stock price revealed that dividend payment has a significant effect on the stock price of companies in Indian. The analysis was for fifty companies listed on the exchange and data were collected for the period between 2008 and 2017. Panel data regression analysis was used to conclude the impact of dividend payment on stock prices in the Indian market. Araoye, Aruwaji, and Ajayi [38] carried out an empirical analysis of the effect of dividend policy on stock price volatility within the Nigerian Stock Exchange. Data from actively trading stock for ten years between 2005 and 2014 were obtained and analyzed through Random effects regression analysis and Wald test ratio. The study concluded that dividend per share is a major determinant of share price volatility on the Nigerian Stock Exchange.

Amahalu, Abiahu, Obi and Nweze [51] analyzed the effect of accounting information market share price of selected firms on the Nigerian Stock Exchange between 2010 and 2016. Coefficient of correlation and simple linear regression analysis were used to analyze the data collected. The result of the analysis revealed that dividend per share has a significant relationship with the market price per share of the companies selected. The study recommended that

disclosure of accounting information should be enhanced to boost its impact on shareholders' wealth over the period. Olaoye, Olayinka, Ajibade, & Akinyemi [52] analyzed the effect of profitability on stock price volatility of listed manufacturing companies on the NGX. Five similar and related companies in terms of firm size, geographical location, legal status, ownership and age were selected and data were collected for a period of ten years from 2005 to 2014. Panel data were used and the data were analyzed using the OLS regression method. The study concluded that dividend per share has a significant positive relationship with stock price volatility within the period of study.

Uniamikogbo, Ezennwa, and Bennee [18] carried out a study on the influence of accounting information on stock price volatility in Nigeria using twenty-two companies listed on the NGX. Data were analyzed through the ordinary least square (OLS) regression method and the study concluded that dividend per share had a negative and significant effect on stock price volatility in Nigeria. Aribaba, Ahmodu, Ogbeide, and Olaleye [53] in their study of dividend policy and share price changes within the Nigerian Capital Market examined the effect of dividend per share on stock price changes between 2008 to 2014 using data collected from 15 companies quoted on the NGX. Using regression analysis on the adopted estimated generalized least square method, the study concluded that dividend per share has a negative effect on the stock price changes and the effect is statistically insignificant over the period. Hence, dividend is important and as such investors will prefer dividend payment for cash rather than capital gain in the future. The role of accounting information on stock price volatility was also examined by Osundina, Jayeoba, and Olayinka [54] with the impact of dividend per share on stock price volatility as one of the hypotheses. Data selected were from 2005 to 2014 for ten years from selected listed manufacturing companies in Nigeria. The fixed-effect model was used to analyze the data and they concluded that dividend per share has a positive effect on stock price volatility.

Dinh and Nguyen [55] looked at the impacts of cash dividend policy on stock price volatility of ninety-five companies listed on the Vietnam stock exchange. Panel data were used to analyze the fixed effect model and the random effect model of the data collected within the period. The result of the model revealed that there is a significant negative relationship

between dividend per share and stock price volatility.

Egbeonu, Paul-Ekwere and Ubani [56] did a co-integration analysis of dividend policy and share price volatility of companies listed in the Nigerian capital market as of 31 December 2015. Fifty companies were used with a focus on the year 2015 to ascertain the impact of dividend policy on share price volatility. The result of the granger causality test revealed that investors are only interested in stocks with stable and consistent dividend policy and are less interested in companies with low dividend payout.

To look at the importance of accounting variables in predicting the volatility of stock prices in the Bangladesh Stock Exchange (BSE), Das, Bhattacharjee, and Kumari [57] analyzed whether there exists a significant positive relationship between dividend per share and stock prices. A period of five years from 2015 to 2019 was used and samples were collected from 39 cement companies on the BSE. Panel data were analysed using regression analysis through the fixed effect and random effects models to investigate the relationship between accounting information and stock price volatility. The study concluded that dividend per share is value relevant variable in predicting stock price volatility among the selected companies.

Alajekwu and Ezeabasili [16] examined the effect of dividend policy on stock market volatility in the Nigerian Stock Market. Data were collected over eleven years from 2006 to 2016 across sixty companies. Panel data were analysed using regression analysis technique as well as the fixed-effect model. The conclusion of the study was mixed between the financial sector and non-financial sector of the listed companies. For non-financial firms, the dividend payout ratio has a significant positive effect on the stock market volatility. The financial firms' dividend payout ratio has an insignificant positive effect on the stock price volatility within the sample period. The study concluded that financial firms should ignore dividend policy in the valuation of their firms as it has no significant effect on their price movement. The conclusion of this study thus supported the M&M dividend irrelevance hypothesis.

Naz and Siddiqui [58] investigated the effect of dividend policy on share price volatility in the Pakistani market and used dividend payout ratio as one of the proxies for dividend policy. Multiple

regression analysis was used to analyze the data collected from ten companies over ten years from 2010 to 2019. The findings of the study revealed that payout ratio is significantly and positively related to stock price volatility. Hence the higher the payout ratio, the higher the volatility of the stock. The study further noted that there should be adequate disclosure of dividend payout to guide the public on various investment decisions to be taken.

Hossin and Ahmed [49] expanded the impact of dividend policy on shareholders' wealth in the Bangladesh market to the impact of the payout ratio on stock price volatility. The fixed effect and random effect were differently used to analyze the data collected over the period. Dividend payout was ascertained to have a negative impact on share prices over the period when examined on the food and allied, ceramics and cement industry in the capital market in Bangladesh.

Araoye, Aruwaji, and Ajayi [17] assessed the effect of dividend policy on stock price volatility by extending to the relationship between dividend payout and changes in the stock price of companies listed in Nigeria. With the use of random regression effects on the data obtained from the companies listed in Nigeria over ten years from 2005 to 2014, they concluded that dividend payout negatively affects the volatility of stock prices as well as the earnings after tax. Hence an inverse relationship between payout ratio and share price volatility. This relationship is also exhibited in the earnings after tax and share price volatility.

Jahfer and Mulafara [59] examined the effect of dividend policy on share price volatility within the Colombo stock market for 5 years from 2009 to 2013 using the multiple regression model to analyse the data collected. The study revealed that dividend payout ratio has an insignificant but positive relationship with stock price movement for the period under review. The findings in this study imply that there is an inverse relationship between dividend payout and stock price volatility. Hence, a high rate of payout will lead to lower volatility in stock prices. The conclusion of the study is the dividend payout is the major determinant of the stock price volatility and not the yield on the stock over the period. Egbeonu, Paul-Ekwere and Ubani [56] in their study of dividend policy and share price volatility within the Nigerian market using a co-integration analysis approach examined the causality

between dividend payout ratio and share value of quoted firms on the NGX as of 31st December 2015. Data collected from the companies' financials were analysed using multiple regression analysis, Granger causality test, Engle-Granger co-integration techniques, and ARCH/GARCH models. The study conclusion on the dividend payout ratio is that it has a positive insignificant and inverse relationship with the share price volatility in the market. The conclusion of the study favours companies that pay a higher and consistent dividend over the companies that declares huge earnings without payment of dividend to shareholders.

Hooi, Albaity, and Ibrahimy [60] empirically examined the relationship between dividend policy and share price volatility in the Malaysian market for a period of eleven years from 2003 to 2013. A total of 319 companies were randomly selected from the 798 companies listed on the Kuala Lumpur Stock Exchange as of 31st March 2014. The study concluded that dividend payout is statistically significant though negatively related to share price volatility in Malaysia.

Naz and Siddiqui [58] examined the effect of dividend yield on stock price volatility in the Karachi Stock Exchange. The focus of the study was majorly the impact of dividend policy on stock price volatility using dividend yield as one of the proxies to measure the dividend policy. Data were collected over ten years from 2010 to 2019 and analysed using fixed and random effects on the panel data collected. The study found a positive relationship between dividend yield and stock price volatility within the period of study. The study further concluded that dividend yield is more preferable to the payout ratio to the investors and it is an important determinant in shareholder's wealth volatility.

Camilleri, Grima, and Grima [61] carried out an analysis on how Mediterranean Bank's stocks are affected by the effect of dividend policy on stock price volatility. Sixteen years of data were collected from 2001 to 2016 and analysed using regression analysis. The conclusion of the study was mixed as they considered a longer period that crossed across the financial crisis between 2008 and 2009. When the whole period was considered, dividend yield showed a positive relationship with the stock price volatility and much more important than the dividend payout ratio. However, because of the higher earnings volatility within the financial crisis period from 2008 to 2009, the analysis behaved differently

and was traced to the impact of bull and bears that monitored stock prices.

Nguyen, Bui, and Do [62] looked at the relationship between dividend policy and share price volatility on 141 listed non-financial entities listed in the Vietnam capital market between 2011 and 2016. The five years data were analysed using regression analysis and the fixed effect model after adjusting for any presence of multicollinearity, endogeneity, and causality among the variables. The study found a negative impact between dividend yield and stock price volatility and the impact is statistically significant. Dividend payout was also observed to have a statistically negative effect on stock price volatility.

Zainudin, Mahdzan, and Yet [63] empirically analyzed the effect of dividend policy on the volatility of stock prices on the Industrial products firms in Malaysia for ten years from 2003 to 2012. The study employed Baskin (1989) framework to analyse the volatility of the stock prices and used regression models to analyse the data collected. The phase analysis of the impacts revealed a negative statistically significant relationship between dividend yield and stock price volatility.

Gautam [64] further extended the study on the impact of firm-specific variables on stock price volatility to include the moderating effect of financial leverage. The study which focused on commercial banks in Nepal reviewed twenty commercial banks from 2009 to 2016. Correlation and multiple regression analysis were adopted to drive home the effects. The study revealed that a positive relationship existed between leverage and stock return as well as share price volatility. Hence, the higher the leverage ratio, the higher the stock returns as well as the share price volatility. The impact assessment measured by the regression analysis revealed that leverage ratio had a positive effect on the stock return as well as the share price volatility within the sample period. The effect on changes in EPS and ROE were not considered as other measures of shareholder's wealth.

Iqbal, Raza, Farrukh, and Mubeen [65] empirically examined the impact of different leverage measures on share prices within the Pakistan stock exchange. The variables used for leverage are debt ratio, debt-to-equity ratio and degree of financial leverage while using size as

the control variable. Data were obtained from seventeen listed companies in Pakistan for eleven years from 2005 to 2015. The fixed effects and the random effects of the OLS were adopted to analyse the data. The study concluded that both debt ratio and degree of financial leverage have a negative impact on share prices while the debt-to-equity ratio does not have a significant effect on the entities' share prices.

3.2 Number of Shares Outstanding, Ownership Structure and Firm size on Shareholders Wealth Volatility

Phan and Tran [66] asked a question on whether ownership structure moderates the effect of dividend policy on stock price volatility within an emerging market. Two emerging markets were used and data were collected over eight years from 2008 to 2015. The ownership structure was analyzed into state and foreign ownerships with state ownership expanded to include local enterprises. The study concluded that both foreign and local state ownerships have no impact on stock price volatility after the financial crisis as this was the case before the financial meltdown between 2008 and 2009. The study ascertained that ownership structure has not moderated the relationship between dividend policy and stock price risk within the emerging markets. Hence, the holding of local companies' shares by foreign portfolio investors may not lead to volatility or fluctuation in the stock prices.

Ironkwe and Emeffe [67] examined the role of corporate ownership structure on the performance of firms in the Nigerian market. The focus was on the relationship between ownership concentration and return on equity and data were collected from 2008 to 2017. The ordinary least square model and the error correction model (ECM) were adopted to test the resultant effects and the empirical analysis revealed that there is a statistically insignificant positive relationship between ownership structure and returns on equity within the sample period.

Ogbeide and Evbayiro-Osagie [68] approach the study of stock price volatility from the perspective of corporate governance of companies listed on the Nigerian stock exchange. The study which examined the impact of corporate governance mechanisms on share price volatility in Nigeria obtained data from twenty listed firms for six years from 2010 to 2015. The study used correlation and the GARCH model to examine

the effect of the independent variables which include ownership concentration with the stock price volatility. The study concluded that ownership concentration has a positive but insignificant effect on stock price volatility within the sample period. Hence the concentration of ownership on the publicly listed companies would likely increase the volatility of stock prices.

Nguyen, Nguyen, Ngo, and Nguyen [69] used labour productivity and foreign ownership structure in examining its impact on a firm's performance within the Vietnam stock exchange. Eight years data were obtained with 3,961 observations across the various sample size. The firm's performance was represented by Tobin's Q while foreign ownership used the aggregate numbers of shares held by foreign investors in the listed companies. Multiple regression analysis was employed and the study concluded that foreign ownership structure assists in firm's performance. It recommended that potential investors should select stocks with foreign ownership structure as this will maximize their returns.

Jinadu et al. [70] examined the impact of ownership structure on the performance of multinational banks in Nigeria between 2010 and 2014. Collected panel data from the annual reports of the banks were analysed using least square regression method, as well as correlational research design. The study used ownership concentration, foreign ownership and domestic ownerships as the independent variables and used returns on assets and equities as the dependent variables to measure corporate performance. Findings from the study revealed a statistically significant negative relationship between ownership concentration and the performance of the multinational banks (MNBs) in Nigeria as well as that of domestic ownership and corporate performance in Nigeria MNBs. The study also found a statistically insignificant positive impact of foreign ownership on corporate performance within the sample size and sample period.

In a related study on deposit money banks in Nigeria, Yahaya and Lawal [71] found a statistically significant positive effect between ownership structure and financial performance. To reach this conclusion, the study empirically looked at concentrated, managerial and foreign ownership on the returns on asset and equity and obtained data from fifteen different banks

listed on the NGX between 2008 and 2016. The study adopted the Generalised Moment Method (GMM) to conclude that institutional ownership has a statistically significant positive effect on financial performance.

Li, Nguyen, Pham, and Wei [72] focused on thirty-one emerging markets to measure the effects of larger foreign ownership on stock market returns. The study analysed panel data using regression method and empirical results revealed that large foreign ownership has a negative relationship with the stock price volatility among the emerging markets reviewed including Nigeria. The study re-emphasized the stabilization effects on stock price volatility as established in previous studies.

Gbalam and Uzochukwu [73] examined the moderating effect of dividend policy on share prices of quoted companies in Nigeria. Data were obtained from twelve consumer goods companies over twelve years from 2007 to 2018. The correlation and fixed effect regression technique was adopted to analyse the effect between the variables. The study concluded that firm size moderated dividend yield and as such showed a statistically significant negative relationship with the share price. The study also found out that firm size moderated positively the payout ratio and as such dividend payout by large firms will improve the share price of the entities.

Antunes, Meireles, Sanfelici, and Garcia [74] carried out an empirical research to examine the effects of firm size on risk and return in the Brazilian stock market. The study adopted a sectoral analysis for monthly data collected between 2000 and 2004. Sixty firms across the various sectors on the Brazillian stock exchange were sampled and ordinary least square analysis was used to examine the extent of the effects. The major objective was to analyze the impact of sector size measured by their market capitalization on the sectorial returns. The conclusion of the study revealed that the sectorial market size does not have an effect on the sectorial returns to the market and this does not affect stock return as well as the volatility of the return.

Sutrisno [75] extended the work done in Indonesia on the determinants of stock price volatility to include the effects of firm size on the volatility of stock price within the Jakarta Islamic Index Companies. Data were collected from

sixteen companies across a period of five years from 2014 to 2018 and analysed using panel regression methods. The result of the analysis of the fixed and random effects of the variables revealed that firm size negatively affects stock price volatility. Hence the smaller the size of the firm the higher the volatility of stock price over the period.

Ahmad, Alrjoub, and Alrabba [76] using multiple regression analysis concluded that firm size measures by the market capitalization of the companies had a negative correlation with the price volatility of the companies listed on the Amman Stock Exchange. Furthermore, it concluded from the regression analysis that firm size has a positive statistically significant effect on stock price volatility. The study concluded that the result of the positive effects implies that larger firms have lower share price risk and price volatility than smaller firms. This study used data gathered from 228 firms listed on the exchange and relates to seven years from 2010 to 2016.

Ayuba, Balago, and Dagwom [77] examined the effects of firm level attributes on the returns of corporate stock of the top twenty-five stocks on the NGX between 2007 and 2016. Panel data was analysed using regression analysis. Data were collected over ten years. The study measured firm size through the market capitalization of the listed companies sampled. The test result revealed a negative but statistically insignificant effect of firm size on stock returns within the top twenty-five stocks on the NGX. The result however showed a positive correlation between firm size and price-earnings ratio of the listed firms.

Al Qudah and Yusuf [78] in the study of the relationship between dividend policy and stock price volatility among Jordanian firms obtained data for ten years from 2001 to 2011. Among the independent variable is the size of the firm used as a moderating variable and measured by the market capitalization of the listed entities. The study adopted regression and correlation analysis to understand the effects of the independent variables on the stock price volatility. The result of the correlation analysis revealed that firm size has a negative relationship with the volatility of stock price within the sample period whereas it is positively related to other variables like the dividend yield, earnings volatility and payout ratio.

4. METHODOLOGY

The *ex-post facto* research design was adopted. Descriptive statistics are used. According to Hejase and Hejase [79], “descriptive statistics deals with describing a collection of data by condensing the amounts of data into simple representative numerical quantities or plots that can provide a better understanding of the collected data” (p. 272). Therefore, frequencies, standard deviations, maximum and minimum values are used for initial analysis of variables. Moreover, inferential statistics were adopted in analyzing the result of the data collected over the sampled period. The population of the study consisted of 162 companies listed on the NGX as of 31 December 2020. Random sampling techniques was adopted in the selection of the sample of 49 companies. Selected companies were listed on the growth, main and premium boards of the Nigerian Exchange (NGX). Data were collected for the dependent and independent variables from January 2010 to December 2020.

To measure the shareholders wealth volatility the GARCH (generalized autoregressive conditional heteroskedasticity) approach was used. After using the GARCH approach for the variables of the shareholders wealth which are stock price volatility, earnings volatility and volume of shares volatility, the difference in difference approach was used to arrive at the SWV used in the study. A simple GARCH model assumes that Y_t follows a first-order autoregressive process, i.e. $Y_t = \alpha_0 + \alpha_1 Y_{t-1} + \varepsilon_t$, where ε_t is white noise with $E(\varepsilon) = 0$ and $V(\varepsilon) = h^2$. In order to forecast the variance of Y , there is a need to estimate the conditional variance of ε_t which is a time-varying variable.

The theoretical specification of a GARCH model, which is being used is as follows:

$$Y_t = \alpha_0 + \alpha_1 Y_{t-1} + \varepsilon_t \quad (1)$$

$$\varepsilon_t | I_{t-1} \sim N(0, h_t^2) \quad (2)$$

$$V(Y | I_{t-1}) = V(\varepsilon_t | I_{t-1}) = h_t^2 \quad (3)$$

$$h_t^2 = \beta_0 + \beta_1 \varepsilon_{t-1}^2 + \beta_2 \varepsilon_{t-2}^2 + \dots + \beta_q \varepsilon_{t-q}^2 + \varphi_1 h_{t-1}^2 + \varphi_2 h_{t-2}^2 + \dots + \varphi_p h_{t-p}^2 \quad (3.4)$$

Where, I_{t-1} includes all available information and h_t^2 is the conditional variance. The GARCH (p,q) model outlined by Equation (3.4) is used to

generate predicted value of h_t^2 as a measure of volatility of Y.

The second stage presents and discusses the regression analysis results based on pooled panel data regression. The estimates of the model parameters were measured by the intercepts and the coefficients which were evaluated through the strength of the independent variables (DPS, DPR, DY, LeV) on the dependent variables (SWV) as well as the use of adjusted R^2 . After the analysis, the level of statistical significance of the individual variables, jointly/isolated or specific, effects were determined using both the t-statistics and the F-statistics at a 5% level of significance.

Diagnostic tests were carried out accordingly to know the best suitable estimation technique for each model under this study. Under inferential statistics, the variance inflation factor for each of the explanatory variables was estimated to test for multicollinearity and this factor implied that the explanatory variables included in all the specified and estimated models were not correlated with one another. For regression analysis, the following diagnostic tests were carried out: Hausman test, the Bresuch-Pagan test for random effect test and the heteroskedasticity, the Testparm FE test for fixed effect test, the Wooldridge test for autocorrelation, and the Pesaron's test of cross-sectional independence.

The Adjusted R^2 measured the proportion of the variations in dividend policy and shareholders wealth volatility of some listed companies on the NGX. The null hypothesis was rejected when probability value of a model was less than 0.05 or statistically insignificant at 5% and alternate hypothesis was accepted; otherwise, if probability value was more than 0.05, the null hypothesis was not rejected and the alternate hypothesis was rejected.

4.1 Mathematical Model

$$SWV_{it} = \alpha + \beta_1 dps_{it} + \beta_2 dpr_{it} + \beta_3 dy_{it} + \beta_4 lev_{it} + \epsilon_{it} \dots \dots \dots (1)$$

$$SWV_{it} = \alpha + \beta_1 dps_{it} + \beta_2 dpr_{it} + \beta_3 dy_{it} + \beta_4 lev_{it} + \beta_5 NOS_{it} + \beta_6 LOS_{it} + \beta_7 FOS_{it} + \beta_8 fz_{it} + \epsilon_{it} \dots (2)$$

Where,

$Y =$ Shareholder's wealth volatility (SWV);

$X =$ Dividend Policy

$x_1 =$ Dividend Per share (DPS)

$x_2 =$ Dividend Payout Ratio (DPR)

$x_3 =$ Dividend Yield (DY)

$x_4 =$ Financial Leverage (LeV)

$z_1 =$ Number of Outstanding Shares (NoS)

$z_2 =$ Ownership Structure (OS) which is sub divided into Local Ownership Structure (LOS) and Foreign Ownership Structure (FOS)

$z_3 =$ firm size (FZ)

4.2 Data Analysis and Presentation of Results

4.2.1 Dividend Policy and Shareholders Wealth Volatility

The study consists of quarterly data for the period 2010-2020 for forty-nine (49) listed firms in Nigeria. The descriptive statistics presented in Table 1 include the mean, maximum, minimum and standard deviations, and the numbers of observations for each of the dependent and independent variables.

4.3 Interpretation

From Table 1, **SWV** has the mean value of 13.745 and standard deviation of 2.383. The mean value of 13.745, suggest that on the average the shareholders wealth volatility of the selected firms on the Nigerian Exchange is very high. The standard deviation of 2.383 connotes that there is a dispersion of the shareholders wealth volatility from the mean. Thus, the standard deviation value is far from the mean, suggesting that the shareholders wealth volatility is susceptible to change over time.

DY: The mean value of 6.157 and standard deviation of 22.891. The mean value of 615.7%, suggests that on average the dividend yield of the selected firms on the Nigerian Stock Exchange is very high. The standard deviation of 2289.1% connotes that there is a dispersion of the dividend yield from the mean to around 2289 percent. Thus, the standard deviation value is very far from the mean, suggesting that the dividend yield is susceptible to change over time.

DPR: The mean value of 29.865 and standard deviation of 44.860. The mean value of 2986.5%, suggests that on average the dividend payout ratio of the selected firms on the Nigerian Exchange is very high. The standard deviation of 4486% connotes that there is a dispersion of the dividend payout ratio from the mean to around

4486 percent. Thus, the standard deviation value is very far from the mean, suggesting that the dividend payout ratio is susceptible to change over time.

DPS: The mean value of 2.081 and standard deviation of 6.412. The mean value of 208.1%, suggests that on average the dividend per share of the selected firms on the Nigerian Exchange is very high. The standard deviation of 641.2% connotes that there is a dispersion of the dividend per share from the mean to around 641 percent. Thus, the standard deviation value is very far from the mean, suggesting that the dividend per share is susceptible to change over time.

LEV: The mean value of 0.520 and standard deviation of 0.757. The mean value of 52.0%, suggests that on average the financial leverage of the selected firms on the Nigerian Exchange is very high. The standard deviation of 75.7% connotes that there is a dispersion of the financial leverage from the mean to around 76 percent. Thus, the standard deviation value is far from the mean, suggesting that the financial leverage is susceptible to change over time. The minimum value of -0.317 and maximum value of 6.952 indicate that the selected firms on the Nigerian Exchange have different levels of financial leverage. This further implies that while some of the sampled firms have negative financial leverage, others have high financial leverage.

FZ: The mean value of 3.612 and standard deviation of 1.294. The mean value of 361.2%, suggests that on average the firm size of the selected firms on the Nigerian Stock Exchange is very high. The standard deviation of 129.4% connotes that there is a dispersion of the firm size from the mean to around 129 percent. Thus, the standard deviation value is far from the mean, suggesting that the firm size is susceptible to change over time.

LOS: The mean value of 6.642 and standard deviation of 0.995. The mean value of 6.642, suggest that on the average the local ownership structure of the selected firms on the Nigerian Stock Exchange is very high. The standard deviation of 0.995 connotes that there is a dispersion of the local ownership structure from the mean to around 0.995. Thus, the standard deviation value is very far from the mean, suggesting that the local ownership structure is susceptible to change over time.

FOS: The mean value of 8.435 and standard deviation of 0.970. The mean value of 8.435, suggest that on the average foreign ownership structure of the selected firms on the Nigerian Stock Exchange is very high. The standard deviation of 0.970 connotes that there is a dispersion of the ownership structure from the mean to around 0.970 per cent. Thus, the standard deviation value is very far from the mean, suggesting that foreign ownership structure is susceptible to change over time.

Table 1. Descriptive Statistics of Dividend Policy and Shareholders Wealth Volatility

Variables	Mean	Maximum	Minimum	Std. Dev.	Obs.
SWV	13.745	18.207	0.000	2.383	2156
DY	6.157	460.292	-96.962	22.891	2156
DPR	29.865	561.136	-172.359	44.860	2156
DPS	2.081	70.844	-5.005	6.412	2156
LEV	0.520	6.952	-0.317	0.757	2156
FZ	3.612	6.063	0.000	1.294	2156
LOS	6.642	13.226	0.000	0.995	2156
FOS	8.435	14.507	0.000	0.970	2156
NOS	2.746	4.023	0.000	0.874	2156

Source: Researcher's computation (2021)

Notes: Table 1 shows the mean, maximum, minimum and standard deviation of the variables. The dependent variable is Shareholders Wealth Volatility (SWV). The explanatory variables are DPS, DPR, DY, LEV. The moderating variables are Local Ownership Structure (LOS), Foreign Ownership Structure (FOS), Firm Size (FZ), and Number of Shares Outstanding (NOS). All the values were calculated from the 2156 firm-quarterly observations for forty-nine firms. The estimation process was facilitated using EVIEWS 10

NOS: The mean value of 2.746 and standard deviation of 0.874. The mean value of 274.6%, suggests that on average the numbers of shares outstanding of the selected firms on the Nigerian Exchange is very high. The standard deviation of 87.4% connotes that there is a dispersion of the numbers of shares outstanding from the mean to around 87 percent. Thus, the standard deviation value is far from the mean, suggesting that the number of shares outstanding is susceptible to change over time. The minimum value of 0.000 and maximum value of 4.023 indicate that the selected firms on the Nigerian Exchange have different levels of numbers of shares outstanding.

4.4 Inferential Statistics

Table 2 shows that the variables leverage, firm size, local ownership structure and foreign ownership structure have positive association with the shareholders wealth volatility of the selected firms listed on the Nigerian Exchange with correlation values of 0.0699, 0.0250, 0.0712, and 0.0614, respectively. This implies that increases in these variables will lead to an increase in shareholders wealth volatility of the selected firms. Conversely, the variables dividend yield, dividend payout ratio, dividend per share, and number of shares outstanding have negative association with shareholders wealth volatility with correlation values of -0.0046, -0.1027, -0.0323, and -0.0222, respectively, thus increases in the aforementioned variables will lead to a fall in shareholders wealth volatility of the selected firms. In addition, dividend payout ratio, leverage, local and foreign ownership structure have statistically significant relationship with the shareholders wealth volatility of the selected firms while dividend yield, dividend per share, firm size and numbers of shares outstanding

have statistically insignificant relationship with the shareholders wealth volatility of the selected firms listed on the Nigerian Exchange. This implies that while dividend payout ratio, leverage, local and foreign ownership structure are significant factors influencing changes in the shareholders wealth volatility of the selected firms, dividend yield, dividend per share, firm size and numbers of shares outstanding are not significant factors that influence changes in the shareholders wealth volatility of the selected firms listed on the Nigerian Exchange.

Model 1:

$$SWV_{it} = \beta_0 + \beta_1DY_{it} + \beta_2DPR_{it} + \beta_3DPS_{it} + \beta_4LEV_{it} + \mu_{it}$$

$$SWV_{it} = 13.5339 + 0.0020DY_{it} + 0.0006DPR_{it} + 0.0030DPS_{it} + 0.3348LEV_{it} + \mu_{it}$$

T-test	39.1238	1.4981	4.0302
	0.5317	2.5277	

From the results in Table 3, there is evidence that dividend yield, dividend payout ratio, dividend per share, and financial leverage have positive relationship with shareholders wealth volatility of the selected listed firms in Nigeria. In addition, there is evidence that dividend payout ratio and financial leverage have statistically significant relationship with shareholders wealth volatility of the selected listed firms in Nigeria (DPR = 0.0006, t-test = 4.0302, p < 0.05 and LEV = 0.3348, t-test= 2.5277, p < 0.05). This implies that dividend payout ratio and financial leverage are significant factors influencing changes in shareholders wealth volatility of the selected listed firms in Nigeria.

Table 2. Correlation Matrix of Dividend Policy and Shareholders Wealth Volatility

Variables	SWV	DY	DPR	DPS	LEV	FZ	LOS	FOS	NOS	VIF
SWV	1.0000									N/A
DY	-0.0046	1.0000								1.01
DPR	-0.1027	-0.0006	1.0000							1.07
DPS	-0.0323	-0.0201	0.1882	1.0000						1.23
LEV	0.0699	0.0319	-0.0994	0.0130	1.0000					3.77
FZ	0.0250	0.0146	0.1188	0.2163	0.1054	1.0000				1.91
LOS	0.0712	0.0131	-0.0933	0.0308	0.7614	0.0803	1.0000			3.14
FOS	0.0614	0.0327	-0.0541	0.0481	0.8433	0.1775	0.8010	1.0000		4.89
NOS	-0.0222	0.0813	0.0811	-0.1135	0.1745	0.6240	0.0968	0.2777	1.000	2.05

Source: Researcher's computation (2021)

4.5 Regression Analyses Results

In sharp contrast, there is evidence that dividend yield and dividend per share have no statistically significant relationship with shareholders wealth volatility of the selected listed firms in Nigeria (DY = 0.0020, t-test = 1.4981, $p > 0.05$; and DPS = 0.0030, t-test = 0.5317, $p > 0.05$). This implies that dividend yield and dividend per share are not significant factors influencing changes in shareholders wealth volatility of the selected listed firms in Nigeria.

Concerning the magnitudes of the estimated parameters 1 unit increase in dividend payout ratio, and financial leverage will lead to, 0.0006, and 0.3348 increase in the shareholders wealth volatility of the selected listed firms in Nigeria, respectively.

The Adjusted R^2 measures the proportion of the variations in the shareholders wealth volatility as

a result of variations in dividend yield, dividend payout ratio, dividend per share and financial leverage. It means that 30% of the variation in the shareholders wealth volatility of the selected listed companies in Nigeria are explained by the variation of the explanatory (independent) variables, while the remaining 70 per cent is explained by other factors.

4.6 Decision Rule

The Wald-test Statistic of 95.82 with a probability value of 0.000 is significant at 1 per cent level, this implies that the null hypothesis that there is no significant effect of dividend policy on shareholders wealth volatility of some selected companies listed on the NSE was rejected and the alternative hypothesis that there is significant effect of dividend policy on shareholders wealth volatility of some selected companies listed on the NSE was accepted.

Table 3. Dividend Policy and Shareholders Wealth Volatility Dependent Variable: SWV

Variables	Coefficient	Drisc/Kraay Std error	t-test	Prob.
Constant	13.5339***	0.3459	39.1238	0.0000
LEV	0.3348**	0.1325	2.5277	0.0293
DY	0.0020	0.0014	1.4981	0.1414
DPR	0.0006***	0.0001	4.0302	0.0000
DPS	0.0030	0.0057	0.5317	0.5977
Adjusted R^2	0.303			
Wald-Test	95.82 (0.000)			
Hausman Test	4.23 (0.375)			
Bresuch-Pagan RE Test	15316.17 (0.000)			
Heteroscedasticity Test	2806.88 (0.000)			
Serial Correlation Test	211.93 (0.000)			
Pesaran CSI	7.77 (0.000)			
Observations	2156			

Source: Researcher's computation (2021)

Notes: Table 3 reports the Static Panel regression results of the effect of dividend policy and shareholders wealth volatility of selected listed firms in Nigeria. The dependent variable is Shareholders Wealth Volatility (SWV), while the explanatory variables are dividend per share (DPS), Dividend Payout Ratio (DPR) Dividend Yield (DY), and Financial Leverage (LEV). * Significant at 10%, ** Significant at 5%, *** Significant at 1%

**Table 4. Controlling effects of Number of Shares Outstanding, Ownership Structure and Firm Size on the relationship between Dividend Policy and Shareholders Wealth Volatility
Dependent Variable: SWV**

Variables	Coefficient	Robust Standard error	t-test	Prob.
Constant	10.8310***	2.9999	3.6105	0.0003
LEV	0.0537***	0.0143	3.7627	0.0000
DY	0.0019	0.0018	1.0754	0.2822
DPR	0.0005	0.0015	0.3144	0.7532
DPS	0.0110***	0.0020	5.4110	0.0000
LOS	0.1288	0.1719	0.7491	0.4538
FOS	0.2087	0.4858	0.4296	0.6675
FZ	0.2771**	0.1118	2.4781	0.0417
NOS	-0.2469	0.2934	-0.8415	0.4000
Adjusted R^2	0.417			
Wald-Test	320.41 (0.000)			

Variables	Coefficient	Robust Standard error	t-test	Prob.
Hausman Test	3.69 (0.884)			
Bresuch-Pagan RE Test	15516.54 (0.000)			
Heteroscedasticity Test	2069.43 (0.000)			
Serial Correlation Test	161.58 (0.000)			
Pesaran CSI	-1.58 (0.115)			
Observations	2156			

Source: Researcher's computation (2021)

Notes: Table 4 reports the Static Panel regression results of the moderating effect of numbers of shares outstanding, ownership structure and firm size on dividend policy and shareholders wealth volatility of selected listed firms in Nigeria. The dependent variable is Shareholders Wealth Volatility (SWV), while the explanatory variables are DPS, DPR, DY, and LEV. The control variables are Local Ownership Structure (LOS), Foreign Ownership Structure (FOS), Firm Size (FZ), and Numbers of Shares Outstanding (NOS) Significant at 10%, * Significant at 5%, ** Significant at 1%

Model 2:

$$SWV_{it} = \beta_0 + \beta_1DY_{it} + \beta_2DPR_{it} + \beta_3DPS_{it} + \beta_4LEV_{it} + \beta_5LOS_{it} + \beta_6FOS_{it} + \beta_7FZ_{it} + \beta_8NOS_{it} + \mu_{it}$$

$$SWV_{it} = 10.8310 + 0.0019DY_{it} + 0.0005DPR_{it} + 0.0110DPS_{it} + 0.0537LEV_{it} + 0.1228LOS_{it} + 0.2087FOS_{it} + 0.2771FZ_{it} - 0.2469NOS_{it} + \mu_{it}$$

T-test	3.6105	1.0754	0.3144
5.4110	3.7627	0.7491	
0.4296	2.4781	-0.8415	

p > 0.05; FOS = 0.2087, t-test = 0.4296, p > 0.05; and NOS = -0.2469, t-test = -0.8415, p > 0.05) and hence are not significant factors influencing changes in shareholders wealth volatility of the selected listed firms in Nigeria.

Concerning the magnitudes of the estimated parameters 1 unit increase in, dividend per share, financial leverage, and firm size will lead to 0.0110, 0.0537 and 0.2771 increase in the shareholders wealth volatility of the selected listed firms in Nigeria, respectively.

Table 4 shows that there is evidence that dividend yield, dividend payout ratio, dividend per share, financial leverage, local ownership structure, foreign ownership structure, and firm size have positive relationship with shareholders wealth volatility of the selected listed firms in Nigeria while numbers of shares outstanding has negative relationship with shareholders wealth volatility of the selected listed firms in Nigeria.

The Adjusted R² measures the proportion of the variations in the shareholders wealth volatility as a result of variations in dividend yield, dividend payout ratio, dividend per share, financial leverage, local ownership structure, foreign ownership structure, firm size, and number of shares outstanding and as such explains about 42 per cent variation in the shareholders wealth volatility of the selected listed firms in Nigeria, while the remaining 58 per cent were other factors.

In addition, there is evidence that dividend per share, financial leverage, and firm size have statistically significant effect with shareholders wealth volatility of the selected listed firms in Nigeria (DPS = 0.0110, t-test = 5.4110, p < 0.05; LEV = 0.0537, t-test = 3.7627, p < 0.05; and FZ = 0.2771, t-test = 2.4781, p < 0.05) and hence are significant factors influencing changes in shareholders wealth volatility of the selected listed firms in Nigeria.

4.7 Decision Rule

In sharp contrast, there is evidence that the remaining variables including dividend yield, dividend payout ratio, financial leverage, local ownership structure, foreign ownership structure, and number of shares outstanding have no statistically significant effect with shareholders wealth volatility of the selected listed firms in Nigeria. Evidence is as follows: (DY = 0.0019, t-test = 1.0754, p > 0.05; DPR = 0.0005, t-test = 0.3144, p > 0.05; LOS = 0.1288, t-test = 0.7491,

The Wald-test Statistic of 320.41 with a probability value of 0.000 is statistically significant at 5 per cent level. This implies that the null hypothesis that there is no significant controlling effect of number of shares outstanding, ownership structure and firm size on dividend policy and shareholders wealth volatility of some selected companies listed on the NSE was rejected and the alternative hypothesis that there is significant controlling effect of number of shares outstanding, ownership structure and firm size on dividend policy and shareholders wealth volatility of some selected companies listed on the NSE was accepted.

Table 5. Comparison of the Changes in the Models

Variables	Main Objective				Controlling Objective				%age Change
	Coefficient t	Drisc/Kraay Standard error	t-test	Prob.	Coefficient	Robust Standard error	t-test	Prob.	Coefficient
Constant	13.5339***	0.3459	39.124	0	10.8310***	2.9999	3.6105	0.0003	-20%
LEV	0.3348**	0.1325	2.5277	0.029	0.0537***	0.0143	3.7627	0	-84%
DY	0.002	0.0014	1.4981	0.141	0.0019	0.0018	1.0754	0.2822	-5%
DPR	0.0006***	0.0001	4.0302	0	0.0005	0.0015	0.3144	0.7532	-17%
DPS	0.003	0.0057	0.5317	0.598	0.0110***	0.002	5.411	0	267%
LOS					0.1288	0.1719	0.7491	0.4538	
FOS					0.2087	0.4858	0.4296	0.6675	
FZ					0.2771**	0.1118	2.4781	0.0417	
NOS					-0.2469	0.2934	-0.8415	0.4	
Adjusted R ²		0.303			0.417				38%
Wald-Test		95.82 (0.000)			320.41 (0.000)				234%
Hausman Test		4.23 (0.375)			3.69 (0.884)				-13%
Bresuch-Pagan RE Tes		15316.17 (0.000)			15516.54 (0.000)				1%
Heteroscedasticity Test		2806.88 (0.000)			2069.43 (0.000)				-26%
Serial Correlation Test		211.93 (0.000)			161.58 (0.000)				-24%
Pesaran CSI		7.77 (0.000)			-1.58 (0.115)				-120%
Observations		2156			2156				0%

When the variables were compared with the main variables, the result showed that leverage, DY and DPR decreased by 84%, 5% and 17%, respectively while DPS increased by 267%. Also, without the controlling effect, DPR and LEV are the significant factors influencing the changes in shareholders wealth. However, with the controlling variables introduced, DPS is the significant factor influencing the changes alongside the LEV ratio. The adjusted R² improved by 38% from 31% to 42% thereby improving the explanatory variables used in the study.

5. DISCUSSION

The study assesses how numbers of shares outstanding, ownership structure and firm size controls the effect of dividend policy on shareholders wealth volatility of forty-nine (49) quoted companies on the Nigerian Stock Exchange for the period 2010-2020. Two hypotheses were tested and their results are summarized below.

The first hypothesis of the study is to ascertain the effect of dividend policy on shareholders wealth volatility of some selected companies listed on the NSE. The estimated regression for the first model shows that there is evidence that dividend payout ratio and financial leverage individually have a significant positive effect with shareholders' wealth volatility, while dividend yield and dividend per share does individually

have a significant effect with shareholders wealth volatility of the selected listed firms in Nigeria. Also, the null hypothesis that dividend policy has no significant effect on shareholders wealth volatility of some selected companies listed on the Nigerian Exchange (NGX) was rejected and the alternative hypothesis that dividend policy has significant effect on shareholders wealth volatility of some selected companies listed on the NGX was accepted. The acceptance of the alternative hypothesis is premised on the Wald-Chi test which shows that the estimated parameters jointly have a significant effect on the shareholders wealth volatility and hence the conclusion on the hypothesis [80-83].

This evidence has empirical linkage with previous studies. For instance, the result aligns with the findings reported by Hossin and Ahmed [49] that examined the impact of dividend policy on stock price volatility within the Bangladesh capital market between 2009 and 2017. The analysis of the data showed that both cash dividends and stock dividends have a positive impact on stock price volatility [84,85]. The study further concluded that investors in the Bangladesh market prefer stock dividends to cash dividends. Also, the study agrees in part to the work of Koleosho, Adegbie, and Ajayi-Owoeye [38]. The conclusion of this study also conforms to the studies of Araoye, Aruwaji, and Ajayi [17], Amahalu, Abiahu, Obi and Nweze [51], Osundina, Jayeoba and Olayinka [54] and Olaoye, Olayinka, Ajibade, & Akinyemi [52]. The

contrast with the above findings is around the variables of measurement. While the overall conclusion was that dividend was relevant from the dividend payout point of view, the dividend per share (DPS) and Dividend yield (DY) had no significant effect on shareholders' wealth volatility within the period of review. The studies of Araoye, Aruwaji, and Ajayi [17], Amahalu, Abiahu, Obi and Nweze [51] and Osundina, Jayeoba, and Olayinka [54] and Olaoye, Olayinka, Ajibade, & Akinyemi (2016) however showed a positive relationship between DPS and stock price volatility.

From a dividend payout perspective, the conclusions of the study confirm that of Alajekwu and Ezeabasili [16] when they analyzed the effect of dividend policy on stock market volatility in the Nigerian Stock Market between 2006 and 2016. They confirmed that for non-financial firms, the dividend payout ratio has a significant positive effect on the stock market volatility. Furthermore, it conforms to the study of Osakwe, Ezeabasili, and Chukwunulu [19] and Uwuigbe, Jafaru, and Ajayi (2012). This conclusion however negates the findings of Hossin and Ahmed (2020) when they analyzed the impact of dividend payout ratio on stock price volatility within the Bangladesh market using the fixed effect and random effect to analyse the data.

The second hypothesis of the study is to evaluate the controlling effect of numbers of shares outstanding, ownership structure and firm size on dividend policy and shareholders wealth volatility of some selected companies listed on the NGX. The estimated model for the second model shows that there is evidence that dividend per share, financial leverage, and firm size individually have significant effect on shareholders wealth volatility of the selected listed firms in Nigeria (DPS = 0.0110, t-test = 5.4110, $p < 0.05$; LEV = 0.0537, t-test = 3.7627, $p < 0.05$; and FZ = 0.2771, t-test = 2.4781, $p < 0.05$) and as are significant factors influencing changes in shareholders wealth volatility of the selected listed firms in Nigeria. In sharp contrast, there is evidence that dividend yield, dividend payout ratio, financial leverage, local ownership structure, foreign ownership structure, and number of shares outstanding individually have no significant relationship with shareholders wealth volatility of the selected listed firms in Nigeria (DY = 0.0019, t-test = 1.0754, $p > 0.05$; DPR = 0.0005, t-test = 0.3144, $p > 0.05$; LOS = 0.1288, t-test = 0.7491, $p > 0.05$; FOS = 0.2087,

t-test = 0.4296, $p > 0.05$; and NOS = -0.2469, t-test = -0.8415, $p > 0.05$) and as such are not significant factors influencing changes in shareholders wealth volatility of the selected listed firms in Nigeria.

The Wald-chi test revealed that they jointly control the effect of dividend policy on shareholders wealth volatility as the test parameters were significant at 5% level. Hence the null hypothesis that number of shares outstanding, ownership structure and firm size do not significantly control the effect of dividend policy on shareholders wealth volatility of some selected companies listed on the NGX was rejected while the alternate hypothesis was accepted [86-88].

The result of the study is in consonant with the findings reported by Yahaya and Lawal [71] when they found a significant positive effect between ownership structure and financial performance. To reach this conclusion, the study empirically looked at concentrated, managerial and foreign ownership on the returns on asset and equity and obtained data from fifteen different banks listed on the NSE between 2008 and 2016. The study adopted the Generalised Moment Method (GMM) to conclude that institutional ownership has a significant positive effect on financial performance. The findings of this study also conformed to that of Chiang and Chan (2017) when they examined the impact of foreign ownership on the firm's stock return volatility between the period of 1994 to 2014 within the Taiwan capital market. The conclusion of this study negates the findings of Sutrisno [75] within the Indonesian market when they examined the determinants of stock price volatility within the Jakarta Islamic Index Companies from 2014 to 2018. Also, it does not align with the conclusion of Phan and Tran [66] when they concluded that both foreign and local state ownership has no impact on stock price volatility.

This result negates the findings of previous studies. For instance, the study conducted by Gbalam and Uzochukwu [73] on the moderating effect of dividend policy on share prices of quoted companies in Nigeria shows that firm size moderated dividend yield and as such showed a significant negative relationship with the share price. The study also found out that firm size moderated positively the payout ratio and as such dividend payout by large firms will improve the share price of the entities. Also, Antunes,

Meireles, Sanfelici, and Garcia [74] carried out an empirical research to examine the effects of firm size on risk and return in the Brazilian stock market. The conclusion of the study revealed that the sectorial market size does not have an effect on the sectorial returns to the market and this does not affect stock return as well as the volatility of the return. In addition, Sutrisno (2020) extended the work done in Indonesia on the determinants of stock price volatility to include the effects of firm size on the volatility of stock price within the Jakarta Islamic Index Companies. Data were collected from sixteen companies across a period of five years from 2014 to 2018 and analysed using panel regression methods. The result of the analysis of the fixed and random effects of the variables revealed that firm size negatively affects stock price volatility.

6. CONCLUSION AND RECOMMENDATION

The purpose of this study is to examine how number of shares outstanding, ownership structure and firm size control the effect of dividend policy on shareholders wealth volatility of some selected companies listed on the NGX between January 2010 and December 2020. The study ascertained that there is a causal relationship between dividend policy and shareholders' wealth volatility of the companies listed on the NGX over the period of the study. This is evident from the significant relationship between dividend payout ratio and shareholders wealth volatility of the selected listed companies on the NGX. Hence the higher the payout ratio, the higher the volatility expected from the daily shareholders wealth variables.

Overall, the study found out that dividend payout ratio and financial leverage influence the volatility of shareholder's wealth of the selected listed companies on the NGX. Hence, as companies' payout more of their earnings as dividend, the shareholders' wealth will fluctuate positively which will attract new investors to buy the shares for the first time. The positive effect of the financial leverage on the shareholders' wealth volatility implies that the debt profile of the companies will cause volatility in the joint measures of the shareholders' wealth. Conversely, DY and DPS do not influence the measures of the shareholder's wealth. Hence the major factor affecting the joint effect of the shareholders' wealth is the dividend payout ratio in comparison to the earnings declared over the

period. Hence, actual dividend paid (DPS) and DY do not individually cause volatility in shareholders wealth of companies listed on the NGX between 2010 and 2020.

Firm size, ownership structure (Local & Foreign) and numbers of shares outstanding jointly significantly control the effect of dividend policy on shareholders wealth volatility. Specifically, when the controlling variables were introduced, dividend per share, financial leverage, and firm size significantly influenced changes in shareholders' wealth volatility while dividend yield, dividend payout ratio, financial leverage, local ownership structure, foreign ownership structure, and number of shares outstanding showed the reverse.

Overall, the conclusion of the study supports the dividend relevance school of thought that dividend is very relevant in the valuation of the company's shares. The positive effect of dividend payout ratio on the volatility of shareholders wealth revealed that the payment of dividend will cause an uproar in the trading of the company's shares and as such caused a volatility of same.

The study recommended that:

- i. Dividend policy has been found out to have a significant relationship with the volatility of shareholders' wealth on listed companies in Nigeria. With dividend payout having significant influence on shareholders wealth volatility, potential and existing investors should go for listed entities with a high dividend payout ratio compared to the earnings generated by the company.
- ii. The investors should also hold more units of the high dividend-paying stocks and benefit more from the high dividend yield at the point of the announcements of the dividend. The investors should hold more shares of the companies with low outstanding numbers of shares as this would rally the share price upward. Current or existing investors should ensure they hold stocks of companies with constant dividend payout ratios to maximize their returns at the point of exit.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Agila M, Jerinabi U. Dividend policy and its impact on shareholder's wealth and firm performance: A study of listed cement companies. *IOSR Journal of Business and Management*, 2018;20(9):28-31. DOI:10.9790/487X-2009072831
2. Adenugba AA, Ige AA, Kesinro OR. (). Financial leverage and firms' value: A study of selected firms in Nigeria. *European Journal of Research and Reflection in Management Sciences*. 2016;4(1):14-32. Retrieved March 20, 2019
3. Adesina K, Uwuigbe U, Uwuigbe OR, Asiriwa O, Oriabe S. Dividend policy and share price valuation in Nigerian banks. *E u r o E c o n o m i c a*. 2017;36(1):185-195. Retrieved December 28, 2020
4. Pandey IM. *Financial management*. India: Vikas publishing house PVT ltd; 2005.
5. Bhalla VK. *Investment management. Security analysis and portfolio management (19th Revised ed.)*. New Delhi, India: S. Chand & Company Limited, India; 2013.
6. LeRoy SF. Efficient capital markets and martingales. *Journal of Economic Literature*, 1989;27(4):1583-1621. Retrieved August 20, 2018
7. Black F. The dividend puzzle. *The Journal of Portfolio Management*. 1996:8-12.
8. Balagobei S, Selvaratnam P. Dividend policy and shareholders' wealth of listed manufacturing companies in Sri Lanka. *European Journal of Business and Management*, 2016;8(25):40-45. Retrieved December 17, 2018
9. Ehikioya BI. An empirical investigation of the impact of dividend policy on the performance of firms in developing economies: Evidence from listed firms in Nigeria. *International Journal of Finance and Accounting*. 2015;4(5):245-252. Retrieved September 30, 2018
10. Farrukh K, Irshad S, Khakwani MS, Ishaque S, Ansari NY. Impact of dividend policy on shareholders wealth and firm performance in Pakistan. *Cogent Business & Management*. 2017;4:1-11. DOI:10.1080/23311975.2017.1408208
11. Ojeme S, Mamidu AI, Ojo JA. Dividend policy and shareholders' wealth in Nigerian quoted banks. *Canadian Social Science*. 2015;11(1):24-29. Retrieved September 30, 2018
12. Almanaseer SR. Dividend policy and share price volatility: Evidence from Jordan. *Accounting and Finance Research*. 2019;8(2):75-85. Retrieved January 10, 2021
13. Nigerian Stock Exchange (2020). The Nigerian stock exchange domestic & foreign portfolio investment report. Retrieved February 14, 2021, from <http://www.nse.com.ng/market-data/other-market-information/foreign-portfolio-investment-report:file:///C:/Users/Adekunle/Desktop/New%20PHD%20Thesis/Domestic%20and%20FPI%20Report%20December%202020.pdf>
14. Oyegunle K. The Deferment Of The new free float rules by the nigerian stock exchange: What Nigerian investors should know; 2019. Retrieved July 10, 2021, from Mondaq: Available:<https://www.mondaq.com/nigeria/commoditiesderivativesstock-exchanges/835170/the-deferment-of-the-new-free-float-rules-by-the-nigerian-stock-exchange-what-nigerian-investors-should-know>
15. Tolosa LE, Nicolas MC. Effect of free float ratio on the behavior of shares valuation in companies listed in latin American capital market. In P. S. Hoffmann, *Firm value - Theory and empirical evidence*. Latin America: Intech Open. 2018:33-52. DOI:10.5772/intechopen.76421
16. Alajekwu UB, Ezeabasili VN. Dividend policy and stock market price volatility in the Nigerian stock market. *British Journal of Management and Marketing Studies*. 2020;3(4):37-52. Retrieved November 20, 2020
17. Araoye FE, Aruwaji AM, Ajayi EO. Effect of dividend policy on stock price volatility in Nigeria stock exchange. *International Journal of Accounting and Financial Reporting*. 2019;9(2):219-231. Retrieved October 20, 2020
18. Uniamikogbo E, Ezennwa EO, Bennee E. Influence of accounting information on stock price volatility in Nigeria. *Accounting and Taxation Review*. 2019;2(4): 113-124. Retrieved November 15, 2020
19. Osakwe AC, Ezeabasili VN, Chukwunulu JI. Effect of dividend policy on stock prices: Evidence from Nigeria. *International*

- Journal of Economics and Financial Management. 2019;4(3):31-45. Retrieved November 20, 2020
20. Olowe RA. Financial management: Concepts, financial system and business finance (4th ed.). Lagos, Lagos, Nigeria: Brierly Jones Nigeria Limited; 2017.
 21. Brealey RA, Myers SC. Principles of corporate finance (5th ed.). New York: McGraw-Hill Companies Inc; 1996.
 22. Cleary WS, Atkinson HJ, Drake PP. Equity and Fixed Income. London: CFA Institute. 2012;1.
 23. Aharon DY, Yagil Y. The impact of financial leverage on the variance of stock returns. *International Journal of Financial Studies*, 2019;7(14):1-18. DOI:10.3390/ijfs7010014
 24. Copeland TE, Weston JF. *Financial Theory and Corporate Policy* (2nd ed.). California: Addison Wesley Publishing Inc; 1983.
 25. Aamir M, Ali-Shah SZ. Dividend announcements and the abnormal stock returns for the event firm and its rivals. *Australian Journal of Business and Management Research*. 2011;1(8): 72-76. Retrieved October 20, 2020
 26. Sadiq M, Ahmad S, Anjum MJ. Stock price volatility in relation to dividend policy: A case study of Karachi stock market. *Middle-East Journal of Scientific Research*. 2013;13(3):426-431. Retrieved December 10, 2020
 27. Nwaiwu JN, Ali SA. Speaking theorists and searching for facts: Dividend policy and share price in Nigeria. *International Journal of Advanced Academic Research/ Business Development & Management*. 2018;4(2):56-78. Retrieved October 25, 2020
 28. Hirschey M, Nofsinger J. *Investments analysis and behaviour* (International Student ed.). New York: McGraw-Hill Irwin Companies Inc, New York; 2008.
 29. CFA. *Financial reporting and Analysis*. UK: Pearson; 2018.
 30. Adesola WA, Okwong AE. An empirical study of dividend policy of quoted companies in Nigeria. *Global Journal of Social Sciences*. 2010;8(1):85–101. Retrieved September 05, 2018
 31. Akintoye IR. *Investment decision concept analysis and management* (Revised ed.). Lagos: Unique Educational Publishers; 2006.
 32. Gordon MJ. Dividends, earnings and stock prices. *The review of Economics and Statistics*. 1959;41(2):272-287.
 33. Miller MH, Modigliani F. Dividend policy, growth and the valuation of shares. *Journal of Business*. 1961;34(1):411-433.
 34. de Villiers D, Apopo N, Phiri A. Unobserved structural shifts and asymmetries in the random walk model for stock returns in African frontier markets. *Cogent Economics & Finance*, 2020;8(1):1-16. Available:doi:<https://doi.org/10.1080/23322039.2020.1769348>
 35. Ajayi MA, Nageri KI. Measuring leverage effect on the Nigerian Stock Exchange in the post financial meltdown. *Amity Journal of Finance*. 2016;1(2):1-21. Retrieved January 20, 2019
 36. Arslan I, Hasan R, Muhammad F, Muhammad M. Impact of leverages on share price: Evidence from cement sector of Pakistan. *Industrial Engineering Letters*. 2016;6(6):44-48. Retrieved January 25, 2019
 37. Nwana I, Ivie G. (, July). Effect of financial leverage on firm's performance: A study of Nigerian Banks (2006 -2015). *International Journal of Recent Scientific Research*. 2017;8(7):18554-18564. DOI:10.24327/IJRSR
 38. Koleosho AO, Adegbe FF, Ajayi-Owoeye AO. Stock market returns and shareholders' wealth sustainability of companies listed on the Nigerian. *Asian Journal of Economics, Business and Accounting*. 2020;16(2):27-45.
 39. Chiang YC, Chan MH. Foreign ownership and firm-level stock return volatility in Taiwan. *Investment Management and Financial Innovations*. 2017;14(3):261-269. DOI:10.21511/imfi.14(3-1).2017.10
 40. The Nigerian Stock Exchange (NSE). NSE Q3 2018 fact sheet. The Nigerian Stock Exchange, Market Data. Lagos: The Nigerian Stock Exchange; 2018. Retrieved January 10, 2019, from Available:http://www.nse.com.ng/market_data-site/other-market-information-site/NSE%20Fact%20Sheet/Q3%20Fact%20Sheet%202018.pdf
 41. Sriharan V. Does firm size influences firm's profitability? Evidence from listed firms of Sri Lankan hotels and travels

- sector. *Research Journal of Finance and Accounting*. 2015;6(6):201-207. Retrieved January 18, 2021
42. Oyelade AO. The impact of firm size on firms performance in Nigeria: A comparative study of selected firms in the building industry in Nigeria. *Asian Development Policy Review*. 2019;7(1):1-11.
DOI:10.18488/journal.107.2019.71.1.11
 43. Central Bank of Nigeria. CBN half year activity report. Abuja: The Central Bank of Nigeria; 2018. Retrieved December 18, 2018, from www.cbn.gov.ng
 44. Fama EF. The behavior of stock market prices. *The Journal of Business*. 1965;38(1):34-105.
Retrieved September 25, 2018
 45. Ajao GA, Osayuwu R. Testing the weak form of efficient market hypothesis in Nigerian capital market. *Accounting and Finance Research*. 2012;1(1):169-179.
DOI:10.5430/afr.v1n1p169
 46. Ewah SO, Esang AE, Bassey JU. Appraisal of capital market efficiency on economic growth in Nigeria. *International Journal of Business and Management*. 2009;4(12):219-228. Retrieved November 05, 2018
 47. Kofarbai HZ, Zubairu M. Efficient market hypothesis in emerging Market - A conceptual analysis. *European Scientific Journal*. 2016;12(25):260-270.
DOI:10.19044/esj.2016.v12n25p260
 48. Alajberg D, Bubaš Z, Šonje V. The efficient market hypothesis: Problems with interpretations of empirical tests. *Financial Theory and Practice*. 2012;36(1):53-72.
DOI:10.3326/fintp.36.1.3
 49. Hossin S, Ahmed F. Dividend policy and stock price volatility in the Bangladesh capital market: An experimental analysis. *Saudi Journal of Economics and Finance*. 2020;4(7):359-367.
DOI:10.36348/sjef.2020.v04i07.008
 50. Singh NP, Tandon A. The effect of dividend policy on stock price: Evidence from the Indian market. *Asia-Pacific Journal of Management Research and Innovation*. 2019;15(1-2):7-15.
DOI:10.1177/2319510X19825729
 51. Amahalu NN, Abiahu MFC, Obi JC, Nweze CL. Effect of accounting information on market share price of selected firms listed on Nigeria stock exchange. *International Journal of Recent Advances in Multidisciplinary Research*. 2018;5(1):3366-3374. Retrieved January 15, 2021
 52. Olaoye BS, Olayinka IM, Ajibade AT, Akinyemi OD. Profitability and stock price volatility of Nigerian listed manufacturing companies. *Research Journal of Finance and Accounting*, 2016;7(18):62-67. Retrieved October 25, 2020
 53. Aribaba FO, Ahmodu OI, Ogbeide SO, Olaleye JO. Dividend policy and share price changes in the stock market: Evidence from Nigeria. *Journal of Business and Organizational Development*. 2017;9(4):30-47. Retrieved January 10, 2021
 54. Osundina AJ, Jayeoba OO, Olayinka IM. Impact of accounting information on stock price volatility: A study of selected quoted manufacturing companies in Nigeria. *International Journal of Business and Management Invention*. 2016;5(11):1-14.
Retrieved January 23, 2021
 55. Dinh NB, Nguyen CC. Impacts of cash dividend policy on stock price volatility. Proceedings of 11th Annual London Business Research Conference 25 - 26 July 2016. London, UK: Imperial College. Retrieved January 22, 2021. 2016:1-10
 56. Egbeonu O, Paul-Ekwere L, Ubani GI. Dividend policy and share price volatility: A co-integration analysis. *International Journal of Advanced Academic Research*. 2016;2(8):59-75. Retrieved January 22, 2021
 57. Das J, Bhattacharjee A, Kumari M. The relationship between stock prices and accounting variables: Evidence based on BSE Listed Cement Companies; 2020. Retrieved January 20, 2021, from ResearchGate:
Available:<https://www.researchgate.net/publication/342690079>
 58. Naz M, Siddiqui AD. The effect of dividend policy on share price volatility in Pakistan; 2020. Retrieved January 20, 2021, from Social Science Research Network:
Avaiable:<https://ssrn.com/abstract=3681292>
 59. Jahfer A, Mulafara AH. Dividend policy and share price volatility: Evidence from Colombo stock market. *International Journal of Managerial and Financial Accounting*. 2016;8(2):97-108.

- doi:10.1504/IJMFA.2016.077947
60. Hooi SE, Albaity M, Ibrahimy AI. Dividend policy and share price volatility. *Investment Management and Financial Innovations*. 2015;12(1):88-96. Retrieved January 15, 2021
 61. Camilleri SJ, Grima L, Grima S. The effect of dividend policy on share price volatility: An analysis of Mediterranean banks' stocks. *Managerial Finance*. 2019;45(2):348-364. DOI:10.1108/MF-11-2017-0451
 62. Nguyen DT, Bui MH, Do DH. The relationship of dividend policy and share price volatility: A case in vietnam. *Annals of Economics and Finance*. 2019;20(1):123-136. Retrieved December 15, 2020
 63. Zainudin R, Mahdzan NS, Yet CH. Dividend policy and stock price volatility of industrial products firms in Malaysia. *International Journal of Emerging Markets*. 2018;13(1):203-217. Available:doi:<https://doi.org/10.1108/IJoEM-09-2016-0250>
 64. Gautam R. Impact of firm specific variables on stock price volatility and stock returns of Nepalese commercial banks. *International Journal of Research in Business Studies and Management*. 2017;4(6):33-44. Retrieved February 07, 2021
 65. Iqbal A, Raza H, Farrukh M, Mubeen M. Impact of Leverages on Share Price: Evidence from Cement Sector of Pakistan. *Industrial Engineering Letters*. 2016;6(6):44-48. Retrieved February 07, 2021. Available: <https://ssrn.com/abstract=2910682>
 66. Phan TH, Tran NH. Dividend policy and stock price volatility in an emerging market: Does ownership structure matter? *Cogent Economics & Finance*. 2019;7(1):1-29. Available:doi:<https://doi.org/10.1080/23322039.2019.1637051>
 67. Ironkwe UI, Emefe P. Corporate ownership structure on financial performance of quoted companies in Nigeria. *International Journal of Advanced Academic Research*. 2019;5(4):67-87. Retrieved February 04, 2021
 68. Ogbeide S, Evbayiro-Osagie EI. Corporate governance mechanisms and share price volatility of quoted firms: Insights from Nigeria. *International Journal of Accounting & Finance*, 2019;8(1):50-58. Retrieved February 07, 2021
 69. Nguyen PA, Nguyen AH, Ngo TP, Nguyen PV. The relationship between productivity and firm's performance: Evidence from listed firms in vietnam stock exchange. *Journal of Asian Finance, Economics and Business*. 2019;6(3):131-140. DOI:10.13106/jafeb.2019.vol6.no3.131
 70. Jinadu O, Uwuigbe U, Uwuigbe OR, Asiriwa O, Eriabie S, Ajetunmobi O, Ilogho SO. Ownership structure and corporate performance of multinational banks: Evidence from Nigeria. *Academy of Strategic Management Journal*. 2018;17(5). Retrieved February 04, 2021. Available:<https://www.abacademies.org/articles/ownership-structure-and-corporate-performance-of-multinational-banks-evidence-from-nigeria-7621.html>
 71. Yahaya K, Lawal R. Effect of ownership structure on financial performance of deposit money banks in Nigeria. *Journal of Accounting and Management*. 2018;8(2):29-38. Retrieved February 03, 2021
 72. Li D, Nguyen QN, Pham PK, Wei SX. Large foreign ownership and firm-level stock return volatility in emerging markets. *Journal of Financial and Quantitative Analysis*. 2011;46(4):1127-1155. DOI:10.1017/S0022109011000202
 73. Gbalam E, Uzochukwu A. Moderating effect of dividend policy and share prices of quoted firms in Nigeria. *International Journal of Research and Scientific Innovation*. 2020;VII(II):215-220. Retrieved February 07, 2020
 74. Antunes J, Meireles AR, Sanfelici A, Garcia R. The effects of firm size on risk and return in the Brazilian stock market: A sectoral analysis. *Finance & Accounting Research Journal*, 2020;2(1):38-44. Retrieved February 07, 2021
 75. Sutrisno B. The determinants of stock price volatility in Indonesia. *Economics and Accounting Journal*. 2020;3(1):73-79. Retrieved October 29, 2020
 76. Ahmad MA, Alrjoub AM, Alrabba HM. The effect of dividend policy on stock price volatility: Empirical evidence from Amman stock exchange. *Academy of Accounting and Financial Studies Journal*. 2018;22(2):1-8. Retrieved December 20, 2020

77. Ayuba AJ, Balago GS, Dagwom DY. Effects of firm level attributes on stock returns in Nigeria. *International Journal of Finance and Accounting*. 2018;7(4): 122-131.
DOI:10.5923/j.ijfa.20180704.04
78. Al Qudah A, Yusuf A. Stock price volatility and dividend policy in Jordanian firms. *Research Journal of Finance and Accounting*. 2015;6(22):149-159. Retrieved January 15, 2021, from Available:<https://www.researchgate.net/publication/309511493>
79. Hejase AJ, Hejase HJ. *Research Methods: A Practical Approach for Business Students* (2nd edition). Philadelphia, PA, USA: Masadir Incorporated; 2013.
80. Pandey IM. *Financial Management* (8th ed.). New Delhi: Vikas Publishing; 2000.
81. Somoye RC, Akintoye IR, Oseni JE. Determinants of equity prices in the Stock Markets. *International Research Journal of Finance and Economics*. 2009;30(2): 177-189.
82. The Nigerian Stock Exchange (NSE);. The Nigerian equities market bulletin- H1 2018. The Nigerian Stock Exchange, Market Data. Lagos: The Nigerian Stock Exchange; 2018. Retrieved January 10, 2019, from Available:
[http://www.nse.com.ng/market_data-](http://www.nse.com.ng/market_data-site/other-market-information-site/Equities%20Market%20Review/Equities%20Market%20Review-%20H1%202018.pdf)
83. Van Horne JC. *Financial Management and Policy* (8th ed.). Englewood Cliffs New Jersey: Prentice Hall Inc; 1989.
84. Fama EF, French KR. Disappearing dividends: Changing firm characteristics or lower propensity to pay. *Journal of Financial Economics*. 2001;60(1): 3-43.
Retrieved October 15, 2020
85. Fama EF, French KR. A five factor asset pricing model. *Journal of Financial Economics*, 2015;166(1):1- 22.
86. Akintoye IR. Accounting: A mismanaged concept requiring urgent re-definition. 28th Inaugural Lecture. Ilishan-Remo, Ogun State, Nigeria: Babcock University Press; 2019.
87. Dang C, Li ZF, Yang C. Measuring firm size in empirical corporate finance. *Journal of Banking & Finance*. 2018;8(6): 159-176.
DOI:10.2139/ssrn.2345506
88. Fama EF. Efficient Capital Markets: A review of theory and empirical work. *The Journal of Finance*, 1970;38(1): 383-417.
Retrieved October 25, 2018

© 2022 Koleosho et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here:
<https://www.sdiarticle5.com/review-history/84337>