Effect of Dividend Payout and Yield on Market Value of Listed Insurance Firms in Nigeria

Ebirim Caroline Chikodi and Mohammed Bala Inuwa

Department of Accounting Bingham University, Karu, Nasarawa State, Nigeria
Email: carolineebirim@gmail.com, Phone No. 08061100115

ABSTRACT

Despite extensive research on market value of firms and how dividend policies impact it, there is a limited understanding of how the market value of listed insurance firms in Nigeria is specifically affected by the dividend payout and dividend yield policies of the firm. This study seeks to address this gap by examining how dividend payout and dividend yield ratio affects market value of listed insurance firms in Nigeria. To achieve these objectives, longitudinal research design was employed, and the study utilized ten (10) listed insurance firms that had consistently published their audited annual financial reports from 2009 to 2023 and analyzed the data using panel multiple regression technique with the help of e-view 12 statistical tools. The result of the study shows that dividend payout ratio had negative and insignificant effect on market value of listed insurance firms in Nigeria, while dividend yield ratio had positive but significant effect on market value of listed insurance firms in Nigeria. In conclusion, these results highlight the nuanced role of dividend policies in influencing investor perceptions and firm valuation, suggesting that while high dividend yields can enhance market confidence and valuation, the effect of payout ratios on Price to Book Value (PBV) is less clear and may depend on additional contextual factors. The study therefore recommends that firms with high Dividend Payout Ratios (DPR) should clearly communicate their growth and reinvestment strategies to investors to mitigate perceptions of limited growth prospects and potentially enhance market valuation. Also, listed insurance firms should leverage the positive relationship between Dividend Yield (DY) and market value by implementing stable and attractive dividend policies, signaling financial stability and profitability to boost investor confidence and market valuation.
Keywords: Dividend Payout Ratio, Dividend Yield, Market Value, Price to Book Value and Firm Size.

INTRODUCTION

The market value of a firm represents the aggregated value assigned to it by investors based on current share prices; it is a key indicator of a company's perceived worth in the marketplace [1]. This valuation reflects the firm's future earning potential, risk profile, and overall financial health. A commonly used proxy to measure market value is the price-to-book value (P/B) ratio. The P/B ratio compares a firm's market capitalization to its book value, providing insights into how well the company is expected to utilize its assets to generate profits. A high P/B ratio may suggest that the market expects robust future growth, whereas a low ratio could indicate potential undervaluation or underlying issues [2]. For insurance firms, this ratio is particularly relevant as it accounts for both the tangible and intangible assets that are crucial in the industry. The insurance market contributes enormously to the financial services industry of almost all developed and developing countries especially in the areas of economic growth, allocation of efficient resources, reduction of transaction costs, generating liquidity and stimulation of investments and elimination of financial losses [3]. They are involved in risk transfer, intermediation and premium mobilization in the economy, and so, it is important that the market value of firms in the insurance sector is assessed in relation to its overall financial health over a given period of time. This study examines how dividend policies impact the market value of insurance firms using two key variables and their ratios – the Dividend Payout and Dividend Yield. The comprehensive exploration of these key variables will delve into scholarly definitions, its calculation methodology, interpretation, and the broader implications it holds within the realm of investment analysis. The motivation for this research stems from the need to understand the specific drivers of market value in the Nigerian insurance sector, where factors such as regulatory changes, economic volatility, and evolving investor preferences play critical roles. By exploring these relationships, this study seeks to

contribute valuable insights to the fields of corporate finance and investment management, particularly within the context of emerging markets like Nigeria. Despite the extensive literature on the impact of dividend policies on firm value, there is a significant gap in understanding this relationship within the specific context of listed insurance firms in Nigeria. Prior studies have predominantly focused on broader sectors or different geographic regions. This leaves unanswered questions about how the unique characteristics of the Nigerian insurance market and its regulatory environment influence the interplay between dividend policies and market value [4]. Understanding these dynamics is crucial for investors, managers, and policymakers seeking to enhance firm valuation and market performance. This study aims to fill these gaps by providing an in-depth analysis of the effects of dividend payout and dividend yield ratios on the market value of listed insurance firms in Nigeria. The basic hypothesis underlying this study are stated thus;

Ho₁: Dividend payout ratio has no significant effect on price to book value of listed insurance firms in Nigeria

Ho₂: Dividend yield has no significant effect on price to book value of listed insurance firms in Nigeria

LITERATURE REVIEW
Conceptual Framework
Dividend Payout

Dividend payout, as defined by scholars and financial experts, encapsulates a company's approach to allocating profits to shareholders through dividends. [5], affirmed that several factors exert influence on the dividend payout of a firm, thereby shaping a company's dividend policy. Profitability therefore emerges as a primary determinant, with higher profits correlating to a greater capacity for dividend distribution. Cash flow dynamics assume a critical role as well, as dividends are typically disbursed in cash. According to [5], for a sustainable dividend payout, a company must demonstrate robust and consistent cash flow. Debt levels, too, impact the payout, as companies burdened with high debt may adopt a cautious stance toward dividend distribution, prioritizing debt servicing over shareholder payouts. The interplay between investment opportunities and dividend payments is another influential factor. Companies with abundant growth prospects may retain a larger share of earnings for internal investments, resulting in a lower dividend payout; in contrast, mature companies with limited growth prospects may be more liberal in payouts as they prioritize returning profits to shareholders [6].

Dividend Payout Ratio

Dividend payout ratio (DPR) is a key financial metric that represents the proportion of earnings a company distributes to its shareholders as dividends. It is calculated by dividing the total dividends paid by the net income of the company [7]. [8] emphasizes the significance of Dividend Payout Ratio (DPR) as a fundamental indicator reflecting a company's stability and maturity. In scholarly terms, the dividend payout ratio represents the fraction of a company's earnings disbursed to shareholders as dividends, expressing a critical element of a firm's financial strategy. This ratio's scholarly underpinnings lay the groundwork for a comprehensive analysis, delving into its calculation and interpretation. Dividend payout ratio is calculated by dividing the total dividends paid by the net income of the company; the formula articulates the proportion of profits redirected to shareholders against those retained for internal reinvestment or other corporate purposes [9]. This calculation provides a numerical expression of a company's commitment to distributing earnings, offering stakeholders and investors a tangible measure of its financial policy. Interpreting the dividend payout ratio involves a nuanced understanding of the resulting percentages. A high ratio, typically above 70%, suggests a company actively channeling a substantial portion of its earnings to shareholders, an attractive prospect for income-seeking investors valuing regular dividend income. Conversely, a low ratio, below 30%, indicates a propensity for the company to retain a significant share of profits for internal growth or debt reduction, appealing to growth-oriented investors focused on long-term capital appreciation [10]. Stability and consistency in the dividend payout ratio are paramount, offering assurance to investors seeking a reliable income stream over time. The ratio's interpretation also necessitates a contextual analysis, comparing it to industry averages to discern whether a company's dividend practices align with sector norms. The dividend policy of a company is a guiding force behind its dividend payout ratio. Whether the emphasis is on income distribution or reinvestment in internal operations shapes the ratio, providing a lens through which investors can discern a company's strategic priorities. Collectively, these factors weave a complex tapestry that investors and analysts must unravel to gain a nuanced understanding of a company's financial health, stability, and growth trajectory. In essence, the dividend payout ratio, as illuminated by scholarly definitions, is not merely a numerical output but a dynamic metric encapsulating a company's financial philosophy. It serves as a compass guiding investors through the labyrinth of financial indicators, offering insights into a firm's dividend practices, stability, and growth potential.

Dividend Yield

[11], defined dividend yield as a financial metric that expresses the annual dividend income generated by an investment as a percentage of its current market price. Dividend yield holds significance for both investors seeking income and those evaluating the overall attractiveness of a stock. At its core, the dividend yield is a percentage representing the annual dividend income an investor can expect to receive relative to the current market price of a stock. It is calculated by dividing the annual dividends per share by the current share price [12]. For insurance firms, which often operate in low-margin environments, a high dividend yield can signal strong financial health and a commitment to shareholder returns. Conversely, a lower yield might reflect a focus on growth and reinvestment, or it could indicate financial distress [3].

Dividend Yield Ratio

[1], [13], define the dividend yield ratio as a metric of a company's annual dividend payments to its current stock price. The dividend payout ratio is the total amount of dividends that a company pays to shareholders relative to its net income. It essentially quantifies the income generated for investors through dividends in relation to the market value of the stock. This ratio provides a valuable benchmark for investors evaluating the income potential of a stock investment and forms a cornerstone for income-focused strategies. Interpreting the dividend yield necessitates a nuanced understanding of its implications for investors. According to [14] a higher dividend yield is often viewed as an attractive feature, indicating a relatively higher income stream for investors in comparison to the stock's market value. However, a high dividend yield should not be viewed in isolation, as it may be a consequence of a declining stock price rather than an exceptionally generous dividend payment. Conversely, a low dividend yield may signify either a modest dividend payment or a high stock price, requiring investors to consider the broader context of the company's financial health and market conditions. One notable aspect of the dividend yield is its dynamic nature, it is subject to fluctuations based on changes in both dividend payouts and stock prices. Investors should be attentive to variations in these factors, as they directly impact the yield and, consequently, the income potential of the investment. The dividend yield holds particular significance for income-oriented investors who prioritize regular cash flow from their investments. Retirees and those seeking a steady income stream often gravitate towards stocks with a history of consistent and high dividend yields. However, it is crucial for investors to assess the sustainability of dividend payments and the underlying financial health of the company. In addition to being a tool for income-oriented investors, the dividend yield is integral to evaluating the total return on an investment. Total return encompasses both capital appreciation and dividend income. Investors often seek a balance between stock price appreciation and a reliable income stream, making the dividend yield a pivotal component of their decision-making process. Furthermore, the dividend yield is instrumental in comparing investment opportunities within and across industries. Different industries may exhibit varying average dividend yields due to factors such as growth prospects, capital expenditure requirements, and overall financial health. Investors can use the dividend yield as a benchmark for evaluating the relative attractiveness of stocks within a specific sector. However, it is essential to approach the dividend yield with a discerning eye. Extraordinarily high yields may be a warning sign if they appear disconnected from the company's fundamentals. A yield that is significantly higher than the industry average may be an indication that the market anticipates a reduction in the stock price or an imminent cut in dividend payments.

Market Value

Market value, in a financial context, refers to the current worth or price of an asset, security, or investment in the open market. It is the result of the interaction between buyers and sellers in a market where assets are traded [4]. Market value is the cost of purchasing a security on an exchange. It is affected by some factors including volatility in the market, current economic conditions, and popularity of the company. According to [15], the invention of double entry bookkeeping in the 14th century led to company's valuation which is based upon ratios such as price per unit of earnings (from income statement), price per unit of net worth (from financial statement) and price per unit of cash flow (cash flow statement). The next advance was to price individual price shares rather than the whole company. A price per dividend was the next advancement. Analysts find it appropriate to use discounted cash flow that is based on time value of money to estimate the intrinsic value of share rather than price per dividend of share prices. Market value is based on supply and demand. It is used to refer to as a company's market capitalization value. It is calculated by multiplying the number of shares issued by the price of the company's share. A company's share price is determined by daily trading between buyers and sellers on the relevant stock exchange. Market prices are easy to determine for assets as the constituent values, such as stock and futures prices, are readily available. A valuation would have to be prepared using different methods [16]. Market value is the value of an asset/security as determined by the forces of demand for and supply of the assets. It is the perceived or observed value of an asset at the market. It is also known as the current value. Most assets that have market values have their values determined by specialized markets such as the

stock exchange. The acceptance of any asset depends on the perception of the potential investor after comparing the market value to the intrinsic value. An asset is undervalued or underpriced if the market value of the asset is less than the intrinsic value. If the intrinsic value of the asset is less than the market value, then the asset is overvalued, over-priced or favorably priced. Where this occur, the investor would ordinarily be acquiring an asset at more expensive value than he would ordinarily have paid. An investor will acquire an overpriced asset if he expects the asset to record a bullish price movement such that if the anticipated price movement crystallizes, the investor can make capital gain.

Price to Book Value

The price-to-book value (P/B ratio) is a financial metric widely used by investors and analysts to assess the relative valuation of a company's stock in relation to its book value per share [16]. Book value represents the net asset value of a company, calculated by subtracting its total liabilities from its total assets (TA). The P/B ratio is derived by dividing the market price per share of a company's stock by its book value per share. This ratio provides insights into whether a stock is undervalued or overvalued by comparing its market value to its accounting value. Understanding the nuances of the price-to-book value is crucial for investors seeking to make informed decisions about potential investments, as it offers a valuable perspective on a company's financial health, risk, and potential for future growth.

At its core, the price-to-book value is a ratio that encapsulates the relationship between a company's market value and its book value. Book value is calculated by taking the ratio of equity available to common stockholders against the number of shares outstanding. It serves as a fundamental measure of a company's net worth and is a key component in the calculation of the P/B ratio. Interpreting the P/B ratio involves considering the implications of different values. A P/B ratio greater than 1 implies that the market values the company at a premium to its book value, suggesting potential overvaluation. Conversely, a P/B ratio less than 1 indicates that the market values the company at a discount to its book value, potentially signaling undervaluation. A P/B ratio equal to 1 implies that the market values the company in line with its book value. [17], stated that the P/B ratio is particularly relevant in industries where tangible assets play a significant role, such as manufacturing or utilities. In such cases, the book value reflects the company's physical assets, and the P/B ratio provides insights into how the market perceives these assets. However, in industries where intangible assets, such as intellectual property or brand value, are more critical, the P/B ratio may have limitations as it may not fully capture the company's intrinsic worth. One of the strengths of the P/B ratio is its simplicity and transparency. Unlike some other valuation metrics that involve complex earnings forecasts or growth projections, the P/B ratio is based on historical accounting figures. This can be advantageous for investors who prefer a more conservative and tangible approach to valuation. However, it's essential to recognize the limitations of the P/B ratio. For instance, the ratio may not account for intangible assets that contribute significantly to a company's value. Brands, patents, and intellectual property may not be fully reflected in the book value, potentially leading to undervaluation if these assets are substantial. Additionally, the P/B ratio may not consider future growth prospects or a company's ability to generate earnings, which can be crucial factors in certain investment decisions. Investors often use the P/B ratio in conjunction with other financial metrics to gain a more comprehensive understanding of a company's valuation. When combined with earnings-based ratios like the price-to-earnings (P/E) ratio, the P/B ratio can help investors assess not only the current value of a company but also its future growth potential. A low P/B ratio, when considered alongside a low P/E ratio, might suggest an undervalued opportunity, but further analysis is warranted to ascertain the reasons behind the low valuation. It is essential to consider industry norms and benchmarks when interpreting the P/B ratio. Different industries may exhibit varying average P/B ratios due to variations in asset intensity, growth expectations, and business models. Comparing a company's P/B ratio to that of its industry peers provides context and helps identify whether the market is valuing the company similarly or differently from its competitors. Moreover, the P/B ratio can be valuable for value investors seeking opportunities in companies perceived to be trading below their intrinsic value. A low P/B ratio may attract investors looking for stocks with potential for capital appreciation as the market adjusts to reflect the company's true worth.

Firm Size

Firm size refers to the magnitude or scale of a business entity, representing the extent of its operations, assets, and overall market presence [18]. Firm size refers to the size of the business unit. It can also be perceived as the volume of operation carried out by a single firm [19]. Firm size is most important to its achievement because of economies of scale phenomenon. Contemporary business organizations aim to improve their intensity to have a competitive advantage over their rivals by decreasing costs associated with production and enlarging market share. Larger enterprises have the advantage of manufacturing products at substantially lower costs than lesser firms. The size of the firm is the volume or collection of the ability to produce and wherewithal a firm has or the volume and variety of value a firm can simultaneously render to its customers. Further based on this concept the firm size is a factor in determining the firm's profitability and reveals a positive association between size and firm's

profitability by several experts. According to [20] firm size refers to the scale of firm and operations of business enterprise. In the present world's trend, due to economies of scale, the size of a firm plays a very important role in competing with competitors through the cost reduction and, 'take and hold more' opportunities. Further based on this concept the firm size is a factor in determining the firm's profitability and reveals a positive association between size and firm's profitability by several experts. [20], stated that Firm size has been recognized as an essential variable in explaining organizational profitability and several studies have tried to explore the effect of firm size on profitability. [5] also supported this as big firms have the capability of making more profit since they have a bigger market share. So based on these situations, the big size firms are more profitable with less competition. In corporate finance, empirical researchers also consider firm size as an important and fundamental firm characteristic, and, observe the size effect - firm size matters in examining the dependent variables in many situations. The concept of firm size is crucial in business and economic analysis, as it provides insights into a company's capacity, competitiveness, and impact on the marketplace. Understanding firm size allows stakeholders, including investors, policymakers, and researchers, to evaluate and compare businesses within and across industries.

Empirical Review

[21], appraised the effect of dividend policy on shareholders' wealth of commercial banks listed on the Nairobi Securities Exchange (NSE). The specific objectives were to determine the effect of a fixed rate dividend policy, fluctuating dividend payout ratio, hybrid dividend policy, residual dividend payment, and stock dividend policy on shareholders' wealth of commercial banks listed at NSE, Kenya. The target population encompassed the NSE-listed 11 commercial banks where the top management personnel from each of the listed commercial banks were selected as the respondents at a sample size of 86 for primary data collection using a questionnaire. ANOVA, multiple regression, and Pearson correlation analysis were utilized as inferential statistics for additional analysis. This study utilized descriptive research design to interpret the effects of dividend policy on shareholders' wealth. The regression results for a Fixed Rate Dividend Policy, Fluctuating Dividend Payout Rate, Hybrid Dividend Policy, Residual Dividend Payment, and Stock dividend policy had a significant and positive effect on Shareholders' Wealth. The study recommends that a flexible hybrid dividend policy that can be embraced by the different stakeholders in the companies should be established and management should continue to steadily raise earnings, cash flow, and dividend payments; when determining a firm's optimal dividend policy, it is important to take its growth trajectory into account, and when creating a dividend policy, commercial banks should take into consideration several factors, including their profitability, dividend history, capital ownership structure, investment prospects, shareholder expectations, shareholder tax status, and capital market accessibility.[9], failed to account for the broader economic and regulatory context in their assessment of dividend policy impacts, limiting the applicability of their findings to other sectors and economic environments. [9] investigated the mediating effect of firm value on the relationship between dividend payout and growth opportunities of consumer goods firms in Nigeria. A sample of 16 firms were selected from the population of the study, which consists of 20 consumer goods firms listed on the Nigerian Exchange as at 31st December 2019. The Baron and Kenny approach to mediation analysis using the structural equation model (SEM) was adopted in analyzing the data with the help of SPSS. The study revealed that firm value fully mediates the relationship between dividend payout and growth opportunities of consumer goods firms in Nigeria. In consonance with the finding, the study recommended that consumer goods firms should increase their dividend payout in order to increase their firm value as well as increase their growth opportunities. While Abdulfatah et al., focused on consumer goods firms, this study targets listed insurance firms. Exploring the effects of dividend policy on market value within the insurance sector provides an opportunity to understand how industry-specific dynamics may influence these relationships.

[22], examined the impact of dividend policy on the market performance of listed insurance firms in Nigeria with and without control over return on assets. The study used an ex post facto research design approach and employed pooled ordinary least squares to analyze data gathered for 10 selected firms from 2008 to 2020. The study's preliminary analysis revealed that all the employed are positively related. The pooled regression result showed that dividend payout (DVP) had a negative but insignificant impact on market price per share (MPPS), while dividend yield (DVY) and dividend per share (DPS) had a positive and significant impact on MPPS. Furthermore, the results showed that return on assets had a negative but insignificant impact on the market price per share (MPPS), and the adjusted R squared results revealed that dividend policy explains about 82% of the changes in market performance of the selected insurance firms. The study concluded that dividend policy has a significant impact on market performance, with or without taking return on assets into account. Based on the results, the study recommended that management and shareholders focus on the operational needs of the company and understand the connection between profit maximization and dividend policies. While both studies share common ground in examining the impact of dividend policy on insurance firms in

Nigeria, this study will contribute by expanding the focus to market value, exploring specific components of dividend payout ratio, dividend yield, and investigating the long-term implications. Additionally, considering how return on assets interacts with dividend policy and market value can provide a more nuanced understanding of the dynamics at play. [6], explored the effect of dividend policy on shareholders wealth in Nigeria. Secondary data were generated from Nigeria stock exchange (NSE) Fact book and daily official list. The variables of dividend per share, earnings per Share and net asset per share were regressed on market price per share. The study used the Ordinary Least Square Regressions (OLS), to determine the effect of independent variables on the dependent variable. The result of the Ordinary Least Square indicates that dividend per share and earnings per share had positive and significant effect on market price per share. Again, the result indicates that net per share has a negative and insignificant effect on the market price per share. The Adjusted R-squared is 0.722253 which means that 72% of total variation in market price per share (MPPS) can be explained by the variables, namely DPS, EPS and NAPS while the remaining 28% is due to other stochastic variables. The Durbin-Watson statistics at (2.173199) indicated that the model was free from autocorrelation. The F-statistic was 0.000340 which means that all the explanatory variables in the study had a significant effect on market price per share within the period under study. The study, therefore, concluded that dividend policy had a positive effect on shareholders" wealth in Nigeria within the period under review. Following the findings, the study recommended that the board of directors should review the dividend policy of the companies operating under the environment to ensure maximum operation and ensure that they comply with relevant regulations. The proposed study will delve deeper into the specifics of what constitutes effective dividend policy compliance within the insurance sector, considering regulatory frameworks specific to insurance companies. [21], examined the relationship between dividend policy and market share price of listed industrial goods companies in Nigeria. The specific objectives were to: evaluate the impact of share dividend on market share price, assess the influence of price earnings ratio on market share price and identify the influence of cash dividend on market share price. Correlation research design was adopted for this study. The population of the study consisted of all eighteen (18) listed industrial goods companies on Nigeria Exchange Group as at 31st December, 2018. A sample of ten (10) listed industrial goods companies on the Nigeria Exchange Group (NGX) was taken using filter criteria and judgmental sampling techniques. The secondary data were collected from annual reports of the sampled companies and Nigerian Stock Exchange (NSE) daily official list for five years period from 2014-2018. In analyzing the data, Ordinary Least Square (OLS) was used. The results of the multiple regression revealed that cash dividend and price earnings ratio have a significant positive relationship with share price. While the findings of the study showed that share dividend (bonus share) has no significant relationship with share price. The study recommended that the dividend policy of listed industrial firms operating in Nigeria should favour high price earnings ratio and cash dividend for their share value to be enhanced. This will invariably shore up the fundamental and technical performance of their shares which will position them for improved performance with resultant higher profit. The management and boards of listed industrial firms should, hence, ensure that robust dividend policy is put in place. Ifeanyichukwu and Yusuf's study revealed that share dividend (bonus share) did not have a significant relationship with share price of industrial goods companies. This study investigates whether the issuance of dividend yield has a different impact on market value for insurance firms, considering the distinct characteristics of the insurance sector. [5], examined the effect of dividend policy on market value of 24 listed insurance companies using empirical evidence from Nigeria. The objective of the study was to examine the effect of dividend per share (DPS), dividend pay-out ratio (DPOr), and bonus yield (DY) on market value per share (MVPS), Net asset period share (Naps) and firm age. Data were obtained from financial statements of 10 Insurance firms listed in the floor of the Nigerian exchange group. The display data covering a date of eight years from 2011 till 2018 were used. AMPERE panel regression investigation technique was employed. The earnings showed that dividend payout ratio and dividend per share got positive and non-significant effect on Markets value per share, net asset per share and the hard age. Dividend yield showed a negative and non-significant result on the dependent variables. The study concluded that dividend policy is capable of influencing market values of financial sector customers at the Nigerian stock market. The study recommended that administrators should establish and maintain an optimal dividend payout policy that can maximize shareholders wealth and suggests that firm managers embark on or switch to a steady dividend payout policy, as investors prefer cash to retention approach. Njoku's study covers the period from 2011 to 2018. This study expands the time frame to cover 2009 to 2023, allowing for a more in-depth analysis of how dividend policy dynamics and market value relationships may have evolved over a more extended period. This extended time frame also allows for a more robust assessment of trends and patterns. [23], investigated the effect of dividend policy on stock prices in Pakistan. The objective of the study was to see if there exists any relationship between dividend policy and stock prices. The study analyzed 45 non-financial companies listed on KSE-100 index that have earned profits and paid dividend for a period of twelve-year with effect from

2001. The technique adopted for sampling adopted was convenience sampling. As the nature of data is panel, therefore, pooled regression, fixed and random effect tests were run. Random effect results were focused after applying Hausman's test. Regression Results witnessed that Dividend per Share and Retention Ratio have an insignificant relationship with Share Market Prices. Dividend Payout Ratio has a significant positive relationship with Share Prices as supported by the Bird in hand theory. This theory suggested that owners give preference to a dollar of estimated dividends over a likely dollar of capital gains. Profit after tax, Earnings per share and Return on Equity were the three control variables. Profit after Tax had an insignificant relation to Stock Prices. Earnings per Share had a positive significant relation to Stock Prices. There was a negative significant relation between Return on Equity and Share Prices. It was recommended that the firms in the sample should regularly pay dividend as it will cause an upward movement in the stock market prices whereas profit retention by firms will result in a decrease in the value of the stock market prices. Usman et al., focused on non-financial companies listed on the KSE-100 index in Pakistan. This study shifts the geographical location to Nigeria and narrows the focus to the insurance sector. The different regulatory environments, market structures, and economic conditions between Pakistan and Nigeria may lead to distinct findings.

[5], examined the effect of dividend policy on the volatility of stock prices of firms quoted on the Nigerian Exchange Group for the period spanning eleven (11) years from 2006 to 2016. The study employed the panel data regression technique to analyse data obtained from 60 firms, comparing 19 financial and 41 non-financial firms. Stock volatility was measured as the standard deviation of stock market prices while dividend policies were captured as dividend payout ratio, and dividend yield with five moderating variables (firm size, growth, leverage, earnings volatility and financial crisis). Findings revealed that dividend payout ratio had significant positive effect on stock market volatility of non-financial firms, and positive but insignificant effect for the financial firms. However, dividend yield had an insignificant negative effect on stock market volatility for both financial and non-financial services firms. The study recommended that investors in the financial services sub-sector should ignore dividend policies, in share pricing and evaluation of stock riskiness. [23], focused more on non-financial companies listed on the KSE-100 index in Pakistan. This study shifts the geographical location to Nigeria and narrows the focus to the insurance sector. The different regulatory environments, market structures, and economic conditions between Pakistan and Nigeria may lead to distinct findings. [24], in their study evaluated the dividend policy and corporate financial performance with evidence from selected listed consumer good firms in Nigeria within

the period 2015-2019; using dividend pay-out ratio, earnings per share and dividend per share as proxies for dividend policy and return on equity as proxy for financial performance with two control variables; firm size and financial leverage. The study employed correlation and ex-post facto research designs. Descriptive statistics and multiple regressions were used for data analysis. Secondary data were used, which were extracted from the Central Bank of Nigeria statistical bulletin and the Audited Annual Reports of the ten selected listed consumer goods firms in Nigeria. The results of the study show that dividend pay-out ratio; earnings per share and dividend per share are positively related to return on equity. It also revealed that dividend pay-out ratio and earnings per share were statistically insignificant with the return on equity while dividend per share was statistically significant with return on equity within the period of study. The study therefore recommended that firms should adopt a dividend policy strategy that will guarantee greater financial performance to improve the dividend per share. It is also recommended that management should act in the best interest of the shareholders as this will go a long way in reducing agency problems. The implication of this finding is that if firms do not adopt a good dividend policy that will benefit the shareholders, investors will lose interest in the firm, and this will threaten the growth of some of these consumer goods firms in the future. [24], used firm size and financial leverage as control variables, and dividend pay-out ratio, earnings per share, and dividend per share as proxies for dividend policy. The proposed study will consider additional independent variables relevant to the insurance sector and explore financial metrics specific to insurance firms, such as price-to-book-value. [11], investigated the effect of market performance and dividend policy of listed manufacturing firms in Nigeria. Market performance was proxied by Economic Value Added (EVA), Market Value Added (MVA), Total Shareholders Return (TSR) and Tobin's Q, while dividend policy is represented by Dividend payout (DPO). The study adopted ex-post facto research design and multiple regression was used to establish the nature and degree of the relationship between the variables under consideration. The study found a positively significant relationship between total shareholders return (TSR) and dividend payout of listed manufacturing firms in Nigeria whilst Tobin's Q revealed positively insignificant effect on dividend payout of listed manufacturing firms in Nigeria. On the other hand, economic value added (EVA) and market value added (MVA) revealed negatively significant relationship on dividend payout of the firms. Therefore, it is recommended among others that management of manufacturing firms in Nigeria should try to improve their market performance by ensuring that the company invests in projects that would yield positive return thereby attracting more investors and consequently better value to the firm.

[11], focused on manufacturing firms in Nigeria. This study shifts the industry focus to insurance firms, recognizing the distinct characteristics and financial dynamics of the insurance sector. This shift allows for a targeted investigation into how dividend payout ratio and dividend yield influences market value within the insurance industry. [4], focused on the impact of dividend policy on performance of firms listed on health care sector of Nigerian Exchange Group. In order to establish the relationship between the dependent and independent variables in the study, some key proxy variables were used; thus, dividend per share (DPS), dividend cover (DC), dividend pay-out (DPO) and dividend yield (DY) while return on equity (ROE) was captured as a measurement for dependent variable. Data used for the study was collected from Nigerian Exchange Group Factbook spanning from 2014 to 2018 and were analysis using E-view version 10. The results of regression model used indicates that there is a significant positive relationship between return on equity (ROE) and dividend per share (DPS), dividend cover (DC),

dividend pay-out (DPO) and dividend yield (DY) at 5% significant level. From our analysis also, it was found that the coefficient of determination (R^2) captured 64% which indicates that the variables considered in the model accounts for about 64% change in the dependent variable of ROE. Thus, implying that the remaining 36% is a result of other variables not addressed by this model. Based on this, the study concludes that dividend policy has exerted significant influence on firms' performance over the years. Hence this study supports the relevant theories of dividend policy. The study recommended among others that firms willing to maximize value should endeavour to consistently increase their dividend payment as this sends a signal that the firm is financially healthy. The study of [4] was based on the nexus between dividend policy and financial performance of listed healthcare sector in Nigeria, while this present study will investigate the interplay between dividend payout and dividend yield ratios and market value of listed insurance firms in Nigeria.

Theoretical Framework

Dividend Irrelevance Theory

Dividend irrelevance theory, a cornerstone in modern financial thought introduced by Modigliani and Miller in 1961, challenges conventional wisdom by asserting that, under certain assumptions, dividend policy has no bearing on a firm's market value. According to this theory, in a world without taxes, perfect capital markets, and constant investment opportunities, the method of distributing earnings whether through dividends or retained earnings should not impact a firm's overall market value, [25]. Dividend irrelevance theory posits that investors can create their preferred cash flows by selling a portion of their stock of a firm's retained earnings, rendering dividend policy inconsequential. This perspective fundamentally challenges traditional beliefs about the significance of dividends in shaping market value, suggesting that investors are indifferent to a firm's dividend policy when evaluating their investment choices. In a tax-free and perfect capital market environment, the dividend irrelevance theory contends that the value of a firm is determined solely by its earning power and risk. According to Modigliani and Miller, investors can effectively create their desired cash flows by selling shares of a firm if it retains earnings or by receiving dividends if the firm distributes profits. In this scenario, the choice between dividends and retained earnings becomes a matter of indifference for investors, as the total return to shareholders is unaffected by the firm's distribution policy. This assertion challenges the traditional view that dividends are a crucial factor influencing investor preferences and, consequently, market value. Moreover, dividend irrelevance theory highlights the notion that investors can reinvest their own dividends to achieve the same results as the firm's reinvestment of retained earnings. If a firm retains earnings for reinvestment, investors can sell a portion

of their shares to replicate the same cash flows they would have received through dividends. In essence, dividend irrelevance theory suggests that investors possess the flexibility to create their desired income streams, making the firm's dividend policy immaterial to their overall wealth and market value considerations. This indifference to dividend policy has profound implications for how investors perceive and value firms, challenging the conventional belief that dividend decisions play a pivotal role in shaping market value. Additionally, dividend irrelevance theory extends its arguments to consider the impact of taxes on dividend policy and market value. When taxes are introduced into the analysis, the theory suggests that tax considerations may influence the attractiveness of dividends versus capital gains for investors. However, [25] maintain that, in an efficient market, the overall impact of taxes on the investor's wealth is minimal, and, therefore, dividend policy remains largely irrelevant to market value. This perspective challenges the notion that tax considerations should be a primary factor guiding a firm's dividend decisions, emphasizing the overriding importance of the firm's underlying earning power and risk profile. Furthermore, dividend irrelevance theory underscores the role of investor preferences and perceptions in shaping the market's reaction to dividend policy decisions. If investors are indifferent between dividends and capital gains, as the theory posits, then changes in dividend policy should have no direct impact on the firm's market value. However, the theory acknowledges that investor preferences, tax considerations, and signaling effects can influence how investors interpret dividend policy decisions, potentially impacting the stock price. While the direct link between dividend policy and market value may be deemed irrelevant, the theory recognizes the

importance of how investors perceive and react to changes in a firm's distribution policy. In practical terms, the dividend irrelevance theory challenges traditional corporate finance principles that emphasize the role of dividends in determining a firm's value. It prompts a reevaluation of managerial decisions regarding payout ratios and challenges the widely held belief that dividend decisions significantly influence investor perceptions and market value. However, it is essential to note that the assumptions underlying dividend irrelevance theory such as perfect capital markets, no taxes, and constant investment opportunities are idealized and may not fully capture the complexities of the real-world financial landscape. Consequently, while the theory provides a theoretical framework for understanding the nexus between dividend policy and market value, its practical applicability may be limited in more nuanced and imperfect market conditions.

Signaling Theory

Michael Spence, an Economist, developed the Signaling theory in 1970. It was developed in the context of job market signaling where potention employees signal their abilities to employers by acquiring education or other credentials. This concept has been adapted in corporate finance to provide a robust framework for unraveling the intricate relationship between dividend policy and market value. Originating from the seminal work of [7], and expanded upon by several scholars, signaling theory posits that firms use their financial decisions, including dividend policy, as signals to convey information to the market. In the context of dividends and market value, this theory suggests that companies strategically manipulate their dividend decisions to communicate valuable information about the firm's financial health, prospects, and management's confidence in its future performance [26]. The signaling process revolves around the idea that certain dividend actions convey specific messages to investors, influencing their perceptions and, consequently, impacting the market value of the firm. One key tenet of signaling theory in the context of dividend policy is the idea that dividend changes serve as signals of management's assessment of the firm's future earnings prospects. When a company increases its dividends, it is often interpreted by investors as a positive signal, suggesting that management is confident about the firm's ability to sustain higher levels of profitability in the future. This positive signal can lead to an upward adjustment in the stock price, reflecting increased investor confidence and positively impacting the market value of the firm. Conversely, a reduction or omission of dividends may be perceived as a negative signal, implying that management anticipates challenges or believes the current level of earnings is unsustainable. This negative signal can lead to a decrease in the stock price, influencing market value in the opposite direction. Furthermore, signaling theory emphasizes the role of dividends in conveying information about the firm's internal cash flows and future investment opportunities. A stable or increasing dividend is often interpreted as a signal that the company has sufficient internal funds to cover its investment needs while still returning value to shareholders. This signal of financial strength and ample investment opportunities can attract investors, potentially leading to an increase in demand for the company's stock and positively impacting market value. In contrast, a decrease in dividends may be interpreted as a signal that the firm is facing financial constraints or lacks attractive investment opportunities. This negative signal can result in a decrease in market value as investors adjust their expectations regarding the firm's prospects. Moreover, signaling theory sheds light on the importance of the information content of dividends in the presence of asymmetric information between managers and investors. Managers possess private information about the firm's true value and prospects that is not readily available to external investors. By adjusting dividend policy, firms can effectively signal information to the market, mitigating the adverse effects of information asymmetry. For instance, an unexpected increase in dividends may be viewed by investors as a credible signal of positive insider information, leading to a positive impact on market value. This signaling effect helps bridge the information gap between managers and investors, enhancing transparency and positively influencing market perceptions. The dynamics of signaling theory are also intertwined with investor expectations and the broader economic context. Firms often tailor their dividend policies to meet or exceed market expectations. Meeting or surpassing dividend expectations can reinforce positive perceptions about the firm's financial stability and growth potential, contributing to an increase in market value. Conversely, falling short of expectations or delivering unexpected dividend cuts can result in negative reactions from investors, leading to a decline in market value. Thus, understanding and managing investor expectations are critical elements in leveraging Signaling Theory to influence market value through dividend policy. Additionally, Signaling Theory recognizes the importance of dividend policy in conveying information about the firm's commitment to its dividend decisions. Firms that establish a consistent and sustainable dividend policy signal a commitment to returning value to shareholders. This commitment is interpreted positively by investors, contributing to the overall perception of the firm's reliability and financial health. The long-term commitment to dividends can create a positive association with the company, potentially leading to a higher market value as investors value the stability and reliability of dividend payments. Thus, signaling theory serves as the underpinning theory to this study as it provides valuable insights into how firms use dividend policy

to signal information to investors, manage asymmetry of information, and influence market perceptions. It recognises the importance of investor expectations and the signaling effect of dividend decisions. Signaling theory underscores the idea that dividend decisions are not merely financial transactions but strategic communication tools.

Firms carefully choose their dividend policies to communicate specific messages to the market. By doing so, they actively shape perceptions and influence how investors interpret their financial standing and prospects [27]. This strategic communication aspect aligns with the broader goal of maximizing shareholder value.

RESEARCH METHODOLOGY

This study utilised a longitudinal panel research approach to collect information regarding the pre-existing nature of the phenomenon being studied and to establish and characterize the links between the variables being examined. The population for this study comprises all twenty-two (22) insurance firms that are listed in the Nigerian Exchange Group as of December 31, 2023. The sample selection process utilized the purposive sampling technique. To exclude firms that lack complete records of all the necessary variables for measuring the study's parameters within the specified period, a two-point filter approach was utilized to select the samples. The criteria for selection were as follows: The firm must be listed by the Nigeria Exchange Group for the entire duration of the study and the firm must have a consistently constituted board of directors throughout the study period. The purpose of this is to mitigate any issues related to validity and reliability. Ten (10) insurance firms in total satisfied the criteria established for sample selection. Twelve (12) insurance companies did not match the criteria required to be included in the sample chosen for study. The study spans 2009 to 2023. The secondary data acquired for the dependent and independent variables were analysed using descriptive statistics, correlation analysis, panel regression, and post-regression diagnostic tests on variables using the E-view version 12 statistical tool. [7] in their study after a review of their theoretical framework created a model for their study thus:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Where: Y=the dependent variable (Shareholder's Wealth).

Independent variables were:

X_1= Fixed Rate Dividend Policy

X_2= Fluctuating Dividend Payout Rate

X_3= Hybrid Dividend Policy

X_4= Residual Dividend Payment

X_5= Stock Dividend Policy

β_0=Regression constant (the value of Y when $X_1 = X_2 = X_3 = X_4 = X_5 = 0$)

β_i is the coefficient for X1 (Where i=1,2,3,4,5)

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$= Change in Y with respect to a unit change in X_1, X_2, X_3, X_4, X_5 respectively e= standard error term.

This study has however made modifications and adaptations to the model by [7]. The model adapted for this investigation is as follows:

$$PBV = \alpha_0 + \beta_1 DPR + \beta_2 DY + \beta_3 FSZ + \epsilon \text{ --- (i)}$$

Where;

    PBV = Price to Book Value

    DPR = Dividend Payout Ratio

    DY = Dividend Yield

    FSZ = Firm Size (control variable)

    α_0 = Constant or intercept

    $\beta_1 - \beta_2$ = Regression coefficients.

    ϵ = Stochastic error term.

A Prior Expectation

Based on extant studies and theoretical foundations, the expected relationships in the model are as follows:

DPR (β_1) = +ve; DY (β_2) = +ve and FSZ (β_2) = +ve while ϵ (Stochastic error term) = Variability in PBV not explained by DPR, DY & FSZ.

Table 1: Measurement of Variables

Variable	Type	Measurement	Source
Price to Book Value (PBV)	Dependent	Price-to-Book Value (P/B) = Market Price per Share / Book Value per Share	[27]
Dividend Payout Ratio (DPR)	Independent	Dividend Payout Ratio = Dividends Per Share / Earnings Per Share	[28]
Dividend Yield (DY)	Independent	Dividend Yield Ratio = Dividends Per Share / Stock Price	[29]
Firm size (FSZ)	Control	Measure as natural log of total Asset	[30]

Source: Researcher Computation (2024)

RESULTS AND DISCUSSION

Descriptive Statistics

To gain an initial understanding of the data utilized in this study, descriptive statistics were computed. This preliminary analysis provides valuable insights into the patterns and characteristics of the dataset. The summary statistics are presented in table 2.

Table 2: Descriptive Analysis Result

	PBV	DPR	DY	FSZ
Mean	0.160755	30.67135	53.97582	6.789800
Median	0.130878	31.23590	54.00000	6.658081
Maximum	0.569197	97.94084	245.0000	8.193000
Minimum	-0.172223	7.000000	0.026796	4.028000
Std. Dev.	0.144573	13.15053	40.56170	0.778095
Skewness	0.494209	1.353061	1.448777	-0.382783
Kurtosis	3.174221	7.543481	7.088215	3.508436
Jarque-Bera	6.295768	174.7895	156.9333	5.278737
Probability	0.042943	0.000000	0.000000	0.071406
Sum	24.11318	4600.703	8096.373	1018.470
Sum Sq. Dev.	3.114283	25767.53	245142.5	90.20942
Observations	150	150	150	150

Source: E-View 12 Output (2024)

The table presents summary statistics for four variables: Price-to-Book Value (PBV), Dividend Payout Ratio (DPR), Dividend Yield (DY), and Firm Size (FSZ). The mean values indicate the average levels of these metrics across the observations. Specifically, the mean PBV is 0.160755, indicating that on average, firms have a PBV ratio of 0.160755. The DPR has a mean of 30.67135, showing that on average, firms distribute about 30.67% of their earnings as dividends. The DY and FSZ have mean of 53.97582 and 6.789800, respectively, indicating average dividend yields of about 54% and an average firm size of approximately 6.79 units (the unit of measure for FSZ isn't specified). The table also provides insights into the distribution and variability of the data. The standard deviation (Std. Dev.) shows the dispersion of the data from the mean. PBV has a standard deviation of 0.144573, suggesting relatively low variability compared to DY, which has a much higher standard deviation of 40.56170. The skewness values indicate the asymmetry of the distribution. For instance, DPR and DY have high positive skewness (1.353061 and 1.448777, respectively), suggesting that these distributions are right skewed with a long tail on the right side. Conversely, FSZ has a negative skewness (-0.382783), indicating a left-skewed distribution. Kurtosis values reflect the peakedness of the distributions. DPR and DY exhibit high kurtosis (7.543481 and 7.088215), indicating leptokurtic distributions with heavy tails, whereas PBV and FSZ have kurtosis values closer to 3, indicating distributions closer to normal. To assess the normality of these distributions, the Jarque-Bera test statistics and their associated probabilities are crucial. The Jarque-Bera test measures the departure from normality based on skewness and kurtosis. For PBV, the Jarque-Bera statistic is 6.295768 with a probability of 0.042943, suggesting a marginal departure from normality at a 5% significance level. DPR and DY have Jarque-Bera probabilities of 0.000000, indicating significant departures from normality. FSZ has a Jarque-Bera statistic of 5.278737 with a probability of 0.071406, suggesting it does not significantly deviate from normality at a 5% significance level, but it is close. Therefore, the data sets for DPR and DY are not normally distributed, while PBV and FSZ are closer to normality but still exhibit some deviations.

Correlation Analysis

Table 3 below shows the results of the association between the independent and dependent variables of listed non-financial firms in Nigeria. It contains the Pearson pairwise correlation coefficients of the variables under study. The correlation matrix is presented in Table 4 below. An acceptable correlation is typically considered significant if the absolute value of the correlation coefficient is at least 0.3, indicating a moderate relationship, while a high correlation would generally be above 0.7.

Table 3: Correlation Matrix

Covariance Analysis: Ordinary
Date: 07/01/24   Time: 15:13
Sample: 2009 2023
Included observations: 150

Correlation Probability	PBV	DPR	DY	FSZ
PBV	1.000000 -----			
DPR	-0.246544 0.0024	1.000000 -----		
DY	0.124766 0.1282	-0.228898 0.0048	1.000000 -----	
FSZ	-0.169508 0.0381	-0.111238 0.1754	0.351661 0.0000	1.000000 -----

Source: E-View 12 Output (2024)

The correlation matrix offers valuable insights into the interrelationships among the four variables: Price-to-Book Value (PBV), Dividend Payout Ratio (DPR), Dividend Yield (DY), and Firm Size (FSZ). The correlations among these variables demonstrate the magnitude and orientation of their linear associations. The Pearson's correlation coefficient between PBV and DPR is -0.246544, indicating a statistically significant inverse link with a probability value of 0.0024. This indicates that as the Price-to-Book Value (PBV) ratio grows, the Dividend Payout Ratio (DPR) tends to drop, and vice versa. The variables PBV and DY demonstrate a positive correlation coefficient of 0.124766. However, it is important to note that this connection is not considered statistically significant, as indicated by the p-value of 0.1282. The analysis reveals a strong negative association between FSZ and PBV (-0.169508, p-value = 0.0381). This suggests that larger enterprises generally have lower PBV ratios. The variables DPR and DY exhibit a negative correlation, with a coefficient of -0.228898 and a p-value of 0.0048, suggesting a statistically significant inverse association. These findings indicate that companies with higher payout ratios generally have lower dividend yields. This could be due to the fact that high payouts decrease the amount of retained earnings that can be used for reinvestment, thereby affecting future earnings and dividends. The variables FSZ and DPR exhibit a modest negative correlation of -0.111238, with a p-value of 0.1754. However, this association is not considered statistically significant. The variables FSZ and DY exhibit a positive correlation of 0.351661, which is statistically significant with a p-value of 0.0000. This suggests that bigger companies often have greater dividend yields, which is consistent with existing research indicating that larger, more established companies typically have steady earnings and are more inclined to distribute higher dividends. The consequences of these linkages align with the discoveries in financial literature. The negative correlation between PBV (Price-to-Book Value) and DPR (Dividend Payout Ratio) suggests that companies with higher market valuations (shown by greater PBV) are more inclined to reinvest their earnings rather than distributing them as dividends, aligning with ideas of growth prospects. The strong correlation between FSZ and DY indicates that larger companies possess the ability to provide larger dividends, hence supporting the idea that the size of a company influences its dividend policy. The strong inverse correlation between DPR (Dividend Payout Ratio) and DY (Dividend Yield) suggests that dividend policies have an influence on dividend yields. This finding supports ideas that establish a connection between dividend policy, business value, and performance. Therefore, these linkages offer a detailed comprehension of how market valuation, payout policies, dividend yields, and business size interrelate within a financial framework.

Multicollinearity Test (VIF)

To ensure the robustness of the measurements, multicollinearity tests were conducted using the Variance Inflation Factor (VIF) as the evaluation criterion. Multicollinearity arises when one or more independent variables exert a significant influence on others, violating the assumptions of the linear regression model and potentially compromising the validity of the analysis outcomes. Conducting

multicollinearity tests is essential to determine if there is a strong inter-correlation among independent variables that could lead to erroneous results.

*Decision rule: Gujareti (2015) asserts that a VIF less than 10 indicates the absence of multi-collinearity, while VIF intermediate over 10 is a sign of multi-collinearity.

Table 4: Multicollinearity Test (VIF)

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	158.23367	9.02627	NA
DY	591.53893	7.95491	1.926372
DPR	637.94632	9.64993	1.987645
FSZ	88.974334	9.39419	1.988245

Source: E-View 12 Output (2024)

As noted above, the law of multicollinearity test rule uses a variance inflation factor where VIF centered below indicates a lack of multi-collinearity, while VIF intermediate over 10 indicates the presence of multi-collinearity. Table 4 above shows the absence of multicollinearity between independent variables, as all independent variables (DY, DPR and FSZ) have less than 10 VIF centres.

Heteroskedasticity Test

To validate the panel regression results, the Heteroskedasticity test was conducted as a robustness check. Heteroskedasticity happens when the standard errors of a variable, monitored over a specific amount of time, are non-constant. Heteroskedasticity is a violation of the assumptions for linear regression modeling, and so it can impact the validity of the result from any analysis while heteroskedasticity does not cause bias in the coefficient estimates, it does make them less precise; lower precision increases the likelihood that the coefficient estimates are further from the correct population value.

Hypothesis

Ho: There is no heteroskedasticity problem in the model (Residuals are homoskedastic)
Hi: There is heteroskedasticity problem in the model
Decision Rule:

Do not Reject H$_0$ if the Prob. Chi-Square value is greater than 0.05 (5% level of significant). Otherwise, reject H$_0$.

Table 5: Heteroskedasticity Test

Panel Cross-section Heteroskedasticity LR Test

Null hypothesis: Residuals are homoscedastic

Equation: UNTITLED

Specification: PBV C DPR DY FSZ

	Value	Df	Probability
Likelihood ratio	245.0245	10	0.0653

LR test summary:

	Value	df
Restricted LogL	87.44967	146
Unrestricted LogL	99.97090	146

Source: E-View 12 Output (2024)

Table 5 shows the results of the panel cross-section Heteroskedasticity regression test. The decision rule for the panel cross-section Heteroskedasticity test is stated thus: The null hypothesis of the test states that there is no Heteroskedasticity, while the alternate hypothesis states that there is Heteroskedasticity. The null hypothesis is not to be rejected if the P value is greater than 5% level of significance. From the result in table 5 above with a ratio value of 245.0245 and a corresponding

probability value of 0.0653 which is greater than 5%, the study therefore posits that, there is every reason to not reject the null hypothesis, that states there is no heteroskedasticity problem. Consequently, based on the diagnostic probability 0.0653 the alternative hypothesis is rejected, thus there is homoskedasticity, indicating that residuals are homoskedastic and as such the samples give a true reflection of the population.

Hausman Test

The Hausman test is a test for model specification in panel data analysis and this test is employed to choose between fixed effects model and the random effects model. Due to the panel nature of the data set utilized in this study, the test basically checked if the error terms were correlated with the regressors. Thus, the decision rule for the Hausman specification test is stated; thus, at 5% Level of significance:

Decision Rule:

Reject H_0 if the Prob > F is less than 0.05. Otherwise, do not reject H_0.

Hypothesis

H_0: Random effect is most appropriate for the Panel Regression analysis

H_1: Fixed effect is not appropriate for the Panel Regression analysis

Table 6: Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	9.740368	3	0.0209

Source: E-View 12 Output (2024)

The Hausman test result indicates that the null hypothesis of the random effects model can be rejected in favour of the fixed effects model. The Chi-Sq. Statistic value of 9.740368 with 3 degrees of freedom is significant at the 5% level (Prob. = 0.0482), indicating that the unique errors (µi) are correlated with the regressors. This suggests that the fixed effects model is the more appropriate choice, as it accounts for the individual-specific effects that are present in the data. Therefore, using the fixed effects model will provide more consistent and efficient estimates of the regression coefficients. Given the results of the Hausman test, it is logical to conduct a fixed likelihood ratio test to further determine whether to use fixed effects regression or pooled regression. This additional test will help confirm whether the fixed effects model is the most appropriate choice, or if the pooled regression model is sufficient."

Fixed Effects Likelihood Tests

Redundant Fixed Effects Likelihood Tests are used to determine whether to use a fixed effects or pooled regression model. The test examines whether the individual-specific effects are significantly different from zero. The decision rule is as follows: if the test statistic is significant (e.g., p-value < 0.05), reject the null hypothesis and choose the fixed effects model, indicating that the individual-specific effects are significant and should be accounted for. If the test statistic is not significant, fail to reject the null hypothesis and choose the pooled regression model, indicating that the individual-specific effects are not significant and can be ignored. The test helps ensure consistent and efficient estimates of regression coefficients by selecting the appropriate model.

Table 7: Redundant Fixed Effects Likelihood Tests

Redundant Fixed Effects Tests

Equation: Untitled

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.217365	(9,137)	0.0014
Cross-section Chi-square	28.761526	9	0.0007

Source: E-View 12 Output (2024)

The redundant fixed effects tests indicate that the cross-section fixed effects are statistically significant, providing strong evidence to reject the null hypothesis of no individual-specific effects. The F-statistic of 3.217365 and Chi-square statistic of 28.761526, both with 9 and 9,137 degrees of freedom, are highly significant (Prob. = 0.0014), confirming that the individual-specific effects are significantly different from zero. This suggests that the fixed effects model is the appropriate choice, as it accounts for the significant variation across individual cross-sections, and using a pooled regression model would lead to inconsistent estimates.

Test of Research Hypotheses

Ho₁: Dividend payout ratio has no significant effect on price to book value of listed insurance firms in Nigeria

Ho₂: Dividend yield has no significant effect on price to book value of listed insurance firms in Nigeria

Table 8: Fixed Effect Regression Result

Dependent Variable: PBV

Method: Panel Least Squares

Date: 07/01/24   Time: 15:50

Sample: 2009 2023

Periods included: 15

Cross-sections included: 10

Total panel (balanced) observations: 150

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.311361	0.116797	2.665830	0.0086
DPR	-0.001589	0.000906	-1.753500	0.0818
DY	0.000703	0.000312	2.255388	0.0257
FSZ	-0.020592	0.016746	-1.229609	0.2210

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.574562	Mean dependent var	0.160755
Adjusted R-squared	0.531020	S.D. dependent var	0.144573
S.E. of regression	0.128416	Akaike info criterion	-1.184406
Sum squared resid	2.259219	Schwarz criterion	-0.923484
Log likelihood	101.8304	Hannan-Quinn criter.	-1.078402
F-statistic	24.20957	Durbin-Watson stat	1.860939
Prob(F-statistic)	0.000008		

Source: E-View 12 Output (2024)

The panel least squares regression results indicate the relationships between the Price-to-Book Value (PBV) ratio and the independent variables: Dividend Payout Ratio (DPR), Dividend Yield (DY), and Firm Size (FSZ). The constant term (C) is significant, suggesting an inherent baseline PBV not accounted for by the included variables. DPR has a negative coefficient, implying that higher dividend payout ratios tend to be associated with lower PBV ratios, although this relationship is not significant. DY shows a positive and statistically significant relationship with PBV, indicating that firms with higher dividend yields tend to have higher market valuations. FSZ exhibits a negative relationship with PBV, but this relationship is not statistically significant.

The model's R-squared value of 0.574562 indicates that around 57.46% of the variability in PBV can be explained by the independent variables, while the adjusted R-squared of 0.531020 accounts for the degrees of freedom, reflecting a moderate fit. The highly significant F-statistic probability (0.000008) confirms that the model is statistically significant overall, suggesting that DPR, DY, and FSZ collectively influence PBV. The Durbin-Watson statistic (1.860939) implies no significant autocorrelation in the residuals, indicating that the model's residuals are not correlated, which is desirable in regression analysis. These results align with financial literature that highlights the influence of dividend policies and firm size on market valuations, though the relationships' strength and significance vary.

Discussion of Finding

Following extant studies and theoretical foundations already established in the earlier part of this study, the expected relationships in the model were as follows: The coefficient β_1 representing the Dividend Payout Ratio (DPR), is anticipated to be positive, as higher dividend payouts are often perceived by investors as indicators of a firm's financial stability and profitability, leading to higher market valuations relative to book value [7]. Similarly, β_2, associated with Dividend Yield (DY), is expected to be positive, since a higher dividend yield suggests more substantial returns on investment, which can enhance a firm's attractiveness to investors and thus its market value [4]. For the control variable, Firm Size (FSZ), β_3 is expected to be positive, as larger firms typically benefit from greater market confidence, reduced risk perception, and enhanced valuation due to economies of scale and diversified operations [14]. The intercept captures the baseline Price-to-Book Value ratio when the independent variables are zero, and the stochastic error term accounts for the variability in PBV not explained by DPR, DY, and FSZ. The findings from the study indicates that negative but statistically insignificant relationship exists between Dividend Payout Ratio (DPR) and Price-to-Book Value (PBV) suggesting that firms with higher payout ratios might be perceived as having fewer growth opportunities and thus be potentially valued lower in terms of market valuation. This aligns with the pecking order theory and lifecycle theory of dividends, where companies at a mature stage with fewer reinvestment opportunities

distribute a larger portion of their earnings as dividends. These mature firms may have less potential for growth, which investors might perceive as less attractive, resulting in a lower market value. This finding also corroborates with the study of [2] that found that dividend payout ratio exerts negative and insignificant effect on market value. The positive and statistically significant relationship between Dividend Yield (DY) and PBV supports the signaling theory of dividends, which posits that dividend announcements can signal a firm's confidence in its future earnings prospects. Higher dividend yields can indicate that a firm is generating strong, stable cash flows and is confident in its ability to sustain these payouts, thereby enhancing investor confidence and leading to a higher market valuation. This positive relationship suggests that investors view higher dividend yields as a sign of financial health and stability, which justifies a higher market valuation. Financially, this implies that companies focusing on higher dividend payouts might boost their market valuation, as these signals are interpreted positively by investors seeking reliable returns. Thus, this present study agrees with the research outcome of [24], which recommended that firms should adopt a dividend policy strategy that will guarantee greater financial performance to improve the dividend per share. [5] also agrees and corroborates that that administrators should establish and maintain an optimal dividend payout policy that can maximize shareholders wealth and suggests that firm managers embark on or switch to a steady dividend payout policy, as investors prefer cash to retention approach.

CONCLUSION AND RECOMMENDATIONS

In conclusion, this study agrees that dividend policies influence investor perceptions and firm valuation, as such, high dividend yields enhances market confidence and valuation. On the other hand, Payout Ratios has no affect on Price to Book Values and therefore a consideration should be made of other contextual factors that might affect PBV.
Based on the findings of this study, the following recommendations are made for efficient market

valuation of listed insurance firms on the Nigeria Exchange Group.

i. Based on the significant positive relationship between Dividend Yield (DY) and market value, firms should strategically leverage their dividend yield to enhance market valuation. Listed insurance firms should consider implementing a stable and attractive dividend policy that consistently offers

competitive yields. By doing so, they can signal financial stability and profitability to investors, thereby fostering greater investor confidence and potentially increasing their market valuation.

ii. Firms with high Dividend Payout Ratios (DPR) should evaluate their growth opportunities and reinvestment strategies. Given the negative but statistically insignificant relationship between dividend

payout ratio and market value, these firms should communicate their growth strategies clearly to investors to counteract potential perceptions of limited growth prospects. They could provide detailed plans on how they intend to utilize retained earnings for future expansion, innovation, or market penetration, thereby potentially mitigating any adverse impact on their market valuation.

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