

Effect of Dividend per Share and Payout on Financial Performance of Listed Industrial Goods Firms in Nigeria

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ABSTRACT

There have been many challenges experienced by firms in keeping up with optimal financial performance. Dividend policy is a prominent concern to investors and directs the perceptions of different classes of stakeholders on the profitability of a business. Growing debates on the subject matter has led to questions on how dividend policy affects the financial performance of firms. This study aims to assess the relationship between dividend per share, dividend payout and financial performance in the Nigerian industrial goods sector. The study is built on the ex post facto research design and as such it focuses on a twelve-year time scope which spans from 2012 to 2023. The study has a population of 13 listed industrial goods firms and the study selected a sample of 10 firms to get the most representative sample of the Nigerian industrial goods sector. The study employs the use of dividend per share ratio and dividend payout ratio as the proxies for measuring the two dividend policies. The study also employed the use of return on asset as the proxy for measuring financial performance with revenue serving as the control variable. The study found that dividend per share and dividend payout ratio was not statistically significant in affecting the return on asset of sample firms. The study concluded that dividend per share, dividend payout ratios were not significant in affecting the financial performance of sample firms. The study recommended increasing dividend payout rates and training relevant staff to help manage dividend policy.

Keywords: Dividend Per Share, Dividend Payout, Return on Asset, Revenue, Industrial Goods Firms.

INTRODUCTION

The financial performance of listed industrial goods firms in Nigeria has recently encountered significant challenges influenced by several factors affecting their operations and profitability. Among the foremost concerns is heightened financial risk, exacerbated by unstable foreign exchange rates, escalating inflation rates, and pervasive insecurity within the country [1]. These conditions have led to a notable increase in debt levels and a mismatch between current assets and liabilities, constraining overall performance. Additionally, effective capital structure management remains critical, as decisions regarding the balance between debt and equity financing can substantially impact financial health, influencing the cost of capital and potentially enhancing financial performance. Furthermore, the industrial goods sector in Nigeria has been particularly vulnerable amidst global economic crises, hyperinflation, and the country's economic recession, highlighting vulnerabilities that affect firm performance [2]. These challenges have made it essential to evaluate intrinsic factors within firms' control that could mitigate or leverage these circumstances. The Nigerian industrial goods

sector plays a pivotal role in economic development, contributing significantly to the country's GDP and providing a cornerstone for sustained industrialization [3]. Therefore, understanding and optimizing financial metrics such as profitability, liquidity, solvency, and efficiency are crucial in navigating the sector's capital-intensive operations, exposure to global market dynamics, and continuous technological advancements [4]. One critical aspect of financial performance within this sector is profitability, indicative of a firm's capability to generate returns on invested capital, closely tied to efficient cost management and resource utilization [5]. Liquidity and solvency metrics also play vital roles in assessing short-term stability and long-term financial health, pivotal in a sector where effective working capital management and strategic investments are paramount [6]. Given the sector's dynamic nature influenced by domestic and international factors, including currency fluctuations and regulatory changes, understanding these external influences is crucial for predicting and managing financial outcomes [7]. Moreover, dividend decisions are pivotal for

listed industrial goods firms, impacting the allocation of profits between reinvestment for growth and distribution to shareholders [6]. In the context of Nigeria's industrial goods sector, characterized by capital intensity and continuous technological upgrades, crafting effective dividend policies becomes essential for financial management. Firms must balance reinvestment demands with shareholder expectations for consistent dividends amid economic unpredictability [8]. Understanding the intricate relationship between dividend per share, payout and financial performance is crucial for navigating global economic uncertainties and geopolitical factors affecting the sector [9]. The financial performance of Nigeria's industrial goods sector is critically important due to its heavy reliance on foreign firms to meet local industrial demands. Local companies face intense competition from these foreign counterparts, prompting a renewed urgency for local industrial firms to attract investment and enhance financial performance. Therefore, there is a pressing need to evaluate factors that could improve the financial performance of industrial goods firms in Nigeria. The influence of dividend policy on the financial performance of listed industrial goods firms in Nigeria poses significant challenges that warrant thorough investigation. Key issues include understanding how dividend decisions directly affect financial outcomes, a matter that remains ambiguous despite their pivotal role in shaping firm performance. This lack of clarity hampers effective decision-making among stakeholders, investors, managers, and policymakers seeking guidance on whether higher dividends contribute positively to financial well-being or if retaining earnings offers greater advantages. The relevance of dividend policy has persisted for decades, yet recent shifts in market dynamics, regulatory environments, and investor expectations underscore the urgency for empirical research in this area. Stakeholders such as firms, management teams, and regulatory bodies play crucial roles in shaping dividend policies, necessitating a deeper exploration of their perspectives and actions. While existing research has explored dividend theories such as the Gordon Theory, empirical studies specifically focused on Nigerian industrial goods firms remain limited. Understanding the impact of dividend per share and payout on financial performance promises actionable insights that could lead to more informed dividend strategies and improved financial health for firms. Collaboration among researchers, policymakers, and practitioners is

essential to develop evidence-based guidelines tailored to optimize dividend policies within Nigeria's industrial goods sector. Neglecting these issues risks suboptimal dividend distributions, potentially undermining investor confidence, firm valuation, and broader economic growth. While the literature contains numerous studies investigating the link between dividend per share, payout and financial performance, a critical analysis reveals several gaps necessitating further research, particularly within the context of listed industrial goods firms in Nigeria. These identified gaps encompass time and geographical gaps, underscoring the need for a comprehensive and contemporary investigation. One significant temporal gap in the literature pertains to outdated studies. Many existing works are several years old and fail to account for recent economic and regulatory changes relevant to the hypothesised relationships. This time gap limits the relevance and applicability of findings to current market conditions, highlighting the imperative for up-to-date research. Studies identified with time gaps are [5], [10], [2], [11]. Geographical gaps are evident in studies that generalize findings from countries other than Nigeria to draw conclusions about the Nigerian industrial goods sector. Such studies include [12], [13], [3], [11] and [7]. Given the unique economic, regulatory, and market conditions in Nigeria, findings from dissimilar countries may lead to inaccurate or irrelevant conclusions. Specific studies from other countries include [7], and [3]. There is a distinct need for research explicitly focusing on the Nigerian context, considering the idiosyncrasies of the local industrial goods sector and broader economic environment. This research aims to address these identified gaps by providing a more comprehensive understanding of how dividend per share and payout influences the financial performance of listed industrial goods firms in Nigeria. By examining historical dividend practices, financial indicators, and market reactions, this research aims to offer empirical insights into how dividend policy choices impact financial health and shareholder value creation in the industrial goods sector. In order to fulfil the objectives of the study, the following hypothesis was formulated to be tested:

HO₁: Dividend per share ratio does not have any significant effect on the return on equity of listed industrial goods firms in Nigeria.

HO₂: Dividend payout ratio does not have any significant effect on the return on equity of listed industrial goods firms in Nigeria.

LITERATURE REVIEW

Conceptual Framework

Dividend per share

[14], defines Dividend Per Share as the total dividend payments made by a company divided by the total number of outstanding shares. According to [7], Dividend Per Share is the aggregate

dividends distributed by a company divided by the total number of outstanding shares. [10], describe Dividend Per Share as the ratio of total dividends paid to common shareholders to the number of

common shares outstanding. [6], define Dividend Per Share as the total dividends declared by a company divided by the weighted average number of outstanding shares during a specific period. All four authors employ a consistent measure for Dividend Per Share, calculating it as the total dividends declared or paid by a company divided by the relevant measure of outstanding shares. This measure provides a per-share perspective on the dividends distributed, allowing investors to evaluate the cash or stock return on their investment in a more granular manner. A higher DPS indicates a more generous dividend distribution, while a lower DPS may suggest a more conservative dividend policy or reinvestment of earnings into the business. Dividend per share (DPS) is a financial metric that measures the amount of dividend that a company pays to each of

Dividend Payout

Dividend Payout refers to the proportion of a company's earnings that is distributed to shareholders in the form of dividends [15]. It can be expressed as a percentage of the company's net income and reflects the company's policy on how much profit is retained for growth and how much is returned to shareholders. According to [16], dividend pay-out is a financial term that describes the amount of money a company pays its shareholders in dividends relative to its total earnings. This metric is crucial for investors as it indicates the company's commitment to sharing profits with its shareholders and provides insights into the company's financial strategy and stability. The Dividend Payout is the percentage of a company's net income that is distributed to shareholders in the form of dividends. This ratio

Financial Performance

According to [13], financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. According to [16], financial performance is a complete evaluation of a company's overall standing in categories such as assets, liabilities, equity, expenses, revenue, and overall profitability. According to [7], financial performance is the measure of how well a company generates income for its shareholders and how efficiently it manages its resources. According to [15], financial performance is the degree to which the firm's actual results meet or exceed its goals. [14] suggest that financial performance can be measured by using financial models, such as the DuPont analysis, the economic value added, the free cash flow, and the discounted cash flow, to evaluate the sources and

Return on Asset

Return on Assets (ROA) is a key financial ratio that evaluates a company's profitability by comparing its net income to its total assets. This metric helps investors and analysts gauge management's effectiveness in utilizing the company's assets to generate earnings [14]. According to [18], Return on Assets (ROA) is a financial indicator that

its common shareholders. It indicates the profitability and financial health of the company, as well as the return on investment for the shareholders. Different dividend per share values can reflect different dividend policies and earnings levels of the company, as well as the number of shares outstanding. This study measures dividend per share using the dividend per share ratio. The Dividend Per Share (DPS) ratio is a financial indicator that quantifies the dividend amount paid on each share of a company's stock over a given period, typically one year. This ratio is important for investors seeking income from their investments, as it reflects the company's dividend-paying capacity and its policy regarding the distribution of profits to shareholders. It is calculated as total dividend/number of issued shares.

helps investors assess the sustainability of a company's dividend payments and understand how much of its earnings are being reinvested into the business versus paid out as dividends. This study measures dividend payout using the dividend payout ratio. The formula involves dividing total dividends by net income. [16], describe the Dividend Payout Ratio as the ratio of dividends paid to common shareholders to the net income available to common shareholders. The calculation involves dividing total dividends by earnings available for common stockholders. [17], define the Dividend Payout Ratio as the fraction of earnings distributed to shareholders in the form of dividends. It is the method used by a company to pay out dividends. The ratio is calculated by dividing total dividends by the firm's net income.

drivers of a company's performance and to estimate its intrinsic value. Financial performance is a broad term that refers to how well a company can use its assets, liabilities, revenues, expenses, and equity to generate profits and create value for its stakeholders. Financial performance measures the ability of a firm to attain its financial goals for a particular accounting period. It is a measure of the economic health and efficiency of a company, as well as its potential for growth and sustainability. Financial performance can be evaluated using various methods, such as financial statement analysis, ratio analysis, trend analysis, benchmarking, and valuation. This study measures financial performance as the return on equity of sample firms.

measures a company's ability to generate profit from its asset base. It is calculated by dividing net income by average total assets and is expressed as a percentage, providing valuable insights into the operational efficiency and profitability of the firm. Return on Assets (ROA) is a financial ratio that measures a company's ability to generate profit

relative to its total assets. It is calculated by dividing net income by average total assets and is expressed as a percentage. ROA provides insight into how effectively a company utilizes its assets to generate earnings. Return on Assets (ROA) is a profitability metric used to assess a firm's efficiency

Revenue denotes the earnings generated by a business or organization through its core operations, encompassing the sales of products or services, and additional sources like royalties, licensing fees, or rent received from owned properties [19]. [19], assert that revenue represents the total monetary influx derived from sales or other transactions within a specific timeframe, covering both cash and credit sales, irrespective of payment receipt. According to [20], revenue is also defined as the overall inflow of economic benefits to an entity, augmenting its assets, such as cash, accounts receivables, or inventory. This influx stems from routine activities like successful sales of goods or services. In this study, revenue is conceptualized as the entire monetary and income accrual by a company from its primary business activities. It serves as a metric for firm size and functions as a control variable to

Revenue

in generating earnings from its investments in assets. It is computed by dividing net income by average total assets over a specific period, indicating the percentage return generated by the company on its asset base.

accommodate other factors potentially influencing firms' financial performance. Revenue, in the context of this study, is the comprehensive financial outcome derived from a company's goods or services sales over a specific period. It embodies the income obtained from fundamental business activities, constituting the top-line or gross income of the company. This encompasses sales of products, services, and additional sources like investments, royalties, or licensing fees. The metric serves as a holistic reflection of the company's financial performance. For consumer goods firms, revenue is intricately tied to elements such as product quality, brand reputation, marketing approaches, distribution channels, pricing strategies, and consumer demand. Regularly monitoring revenue is pivotal for evaluating the financial well-being and growth potential of these companies.

Empirical Review

[3], studied the effect of dividend policy and capital structure on firm value on companies listed in the Jakarta Islamic Index. The variables used in this study are dividend policy, capital structure, firm value, and corporate social responsibility. The proxies for the variables are dividend payout ratio, debt to equity ratio, Tobin's Q, and corporate social responsibility index respectively. The type of data used in this study is secondary data obtained from the Indonesia Stock Exchange and the Indonesian Capital Market Directory. The population of this study consists of companies listed on the Jakarta Islamic Index for the 2019-2021 period. The sample is selected using purposive sampling technique, resulting in 41 companies with 123 observations. The research design used in this study is the causal design method, which aims to test the causal relationship between the independent and dependent variables. The tools of analysis used in this study are panel data analysis using the E-views program. The panel data analysis consists of descriptive statistics, classical assumption tests, model selection tests, hypothesis testing, and moderation analysis. The study found that dividend policy has a positive and insignificant effect on firm value. The study concluded that dividend policy is not significant in determining firm value. The recommendations of this study are that companies should consider the optimal level of dividend payout to maximize their firm value, and that companies should also implement corporate social responsibility activities to enhance their reputation and social performance. The study focused on a foreign population but this study will rely on a Nigerian population. [11], studied the effect of

capital structure, dividend policy, profitability, and tax avoidance on intrinsic firm value in manufacturing companies. The paper uses four independent variables and one dependent variable. The independent variables are capital structure (proxied by debt to equity ratio), dividend policy (proxied by dividend payout ratio), profitability (proxied by return on assets), and tax avoidance (proxied by effective tax rate). The dependent variable is intrinsic firm value (proxied by Tobin's Q ratio). The paper uses secondary data from financial statements of manufacturing companies listed on the Indonesia Stock Exchange from 2014 to 2018. The population of the study is 144 manufacturing companies. The paper uses purposive sampling and selects 25 companies that meet the criteria of having positive net income, positive equity, and paying dividends during the observation period. The final sample consists of 125 firm-year observations. The paper uses a quantitative approach and a causal research design and tests the hypotheses using multiple linear regression analysis with the help of SPSS software. The paper uses descriptive statistics, classical assumption tests, hypothesis tests, and sensitivity tests to analyze the data and the results. The paper finds that dividend policy and tax avoidance have no significant effect on intrinsic firm value. The paper concludes that firm value is not influenced by dividend policy and tax avoidance. The paper suggests that a flexible dividend policy be maintained. The study provides valuable insights into the subject matter but is limited by a short and obsolete time scope which this study intends to fill by focusing on a more current time scope. The

study by [13], examined the effect of dividend policy on firm performance and value in the Korean market, using a sample of 100 listed firms from 2010 to 2019. The authors use dividend payout ratio and dividend yield as proxies for dividend policy, and return on assets, return on equity, and Tobin's Q as proxies for firm performance and value. The study employs secondary data from the Korea Exchange and the Korea Information Service. The authors use panel data regression analysis and Granger causality test for analysis. The main findings of the study are that dividend policy has a positive and significant impact on firm performance and value, and that there is a bidirectional causal relationship between dividend policy and firm performance and value. The study concludes that dividend policy is an important determinant of firm performance and value in the Korean market, and recommends that managers and investors should consider the dividend policy when making decisions. The study also contributes to the literature by providing empirical evidence from an emerging market with different institutional and regulatory settings than developed markets. A research gap observed in the study is that it focuses only on Korea and as such the applicability of its findings to the Nigerian industrial goods sector is adversely affected. Therefore, this study will focus on the Nigerian industrial goods sector to fill this gap. [2], examined the effect of dividend policy on firm performance in Nigeria for the period 2015 to 2019. The specific objectives were to analyse the effect of the form of dividend payment, the timing of dividend payment, and the earnings per share on the performance of Nigerian companies. The dependent variable of the study was firm performance, measured by return on assets (ROA). The independent variables were dividend policy indicators, measured by form of dividend payment (FDP), timing of dividend payment (TDP), and earnings per share (EPS). The study used secondary data obtained from the annual financial reports of consumer product and service firms listed on the Nigerian stock exchange. The population of the study consisted of all listed consumer and service firms on the Nigerian stock exchange. The study used purposive sampling to select 10 firms for the analysis. The study found that ROA had a positive relationship with form of dividend payment, but negative relationships with earnings per share and timing of dividend payment. The study also found that there was no significant positive effect of the form of dividend payment, timing of dividend payment, and earnings per share on the performance of Nigerian companies. The study concluded that dividend policy did not have a significant impact on firm performance in Nigeria. The study recommended that firms should invest in profitable assets that will yield higher returns in the future and attract investments. The study has a limited and out-dated time scope, which may reduce the generalizability and reliability of the findings.

This study will rely on the most recent time scope to fill the observed research gap. [7], analyzed the effect of capital structure, profitability, and dividend policy on firm value for companies listed on the LQ45 index of the Indonesia Stock Exchange in 2017–2021. The study used panel data regression techniques to test their hypotheses. The variables used were debt to equity ratio (DER), return on equity (ROE), dividend payout ratio (DPR), and price to book value (PBV). The study used secondary data from the companies' financial reports and stock prices. The population of the study was all 45 companies in the LQ45 index, but the sample was selected using purposive sampling to obtain 13 companies that met the criteria. The study found that dividend policy had no significant effect on firm value. The paper concluded that profitability was the most important factor influencing firm value, and suggested that managers should optimize their capital structure and dividend policy to enhance shareholder value. The study also contributed to the literature by providing consistent findings on the relationship between capital structure, profitability, dividend policy, and firm value in the Indonesian context. The study used a relatively short and outdated time period, which may limit the generalizability and robustness of the results. Therefore, the study will leverage on a longer and more recent time period to fill the research gap observed. [12], examined the effect of financial performance on firm value, with dividend policy as a moderating variable, in manufacturing companies listed on the Indonesia Stock Exchange from 2016 to 2020. The research utilized a regression analysis method with SPSS to analyze data from a purposive sample of 38 companies out of a population of 195. Financial performance was measured by liquidity (Cash Ratio), leverage (Debt to Equity Ratio), and profitability (Return on Equity), while firm value was measured by Tobin's Q, and dividend policy by Dividend Payout Ratio. The study found that liquidity and leverage did not significantly affect firm value, and dividend policy did not moderate this effect. However, profitability showed a significant positive impact on firm value. The authors concluded that profitability is a key determinant of firm value and recommended that companies focus on improving profitability. The study presents a geographical research gap as it does not include Nigerian companies, and a time gap since the time scope does not extend beyond 2020. This study will fill the gap by focusing on Nigerian firms over a more recent time scope. [5], investigated the effect of dividend policy on firm performance of listed consumer goods companies in Nigeria exchange group. Dividend policy (dependent variable), return on assets, retained earnings, and debt on equity (independent variables) are the variables used in the study. Secondary data from the annual reports of eight consumer goods firms from 2010 to 2020 were used

to represent the variables of interest. The study's population included eighteen consumer goods firms listed on the Nigerian Stock Exchange as of March 5, 2021. Eight consumer goods firms were selected as the study sample by random sampling techniques. Ex post facto quantitative research design was also employed for the study. The study covered a time scope of eleven years that span from 2010 to 2020. Descriptive statistics, granger causality test, co-integration test, unit root test, and panel data regression were all statistical tools employed by the study to carry out relevant analysis. The study found that dividend pay-out has a positive and significant relationship with return on assets and retained earnings, and a negative and significant relationship with debt on equity. The study concluded that performance has a significant impact on the dividend policy of listed consumer goods companies in Nigeria. The study recommends that consumer goods companies should increase the dividends paid to their shareholders to boost their profitability, consider the factors of profitability, retained earnings, and debt to equity ratio when deciding on dividend distribution, and focus on improving their profit margin and fundamentals. The study could be improved by addressing some limitations, such as the small sample size, the use of only one measure of dividend policy and heterogeneity issues in the panel data regression. [10], investigated the influence of dividend policy on the financial performance of selected quoted firms in Nigeria.

Theoretical Framework

Signalling Theory

Signalling theory, originating from economics and contract theory, investigates how entities utilize signals to transmit credible information, particularly in situations where there are disparities in knowledge or information. This theory is highly relevant when analyzing the Effect of Dividend Per share and payout on Financial Performance of Listed Industrial Goods Firms in Nigeria. Michael Spence is a key proponent of signalling theory, known for his publication in 1973 on the job-market signalling model. [21] proposed that individuals signal their abilities to prospective employers through education credentials, under the assumption that these signals correlate with higher levels of skill and capability [21]. His model elucidates how signals can mitigate information asymmetry between job seekers and employers, thereby influencing hiring decisions based on perceived abilities. [22], further expanded signalling theory with his handicap principle in 1975, which suggests that certain traits, such as elaborate peacock tails, function as honest signals of fitness and genetic quality because they are costly to produce [22]. This principle extends signalling theory beyond economics into evolutionary biology, demonstrating the widespread applicability of signalling mechanisms in conveying valuable information. Signalling theory operates on

The study specifically focuses on assessing the impact of earnings per share (EPS) and dividend per share (DPS) on the financial performance, measured by return on equity (ROE), of these selected firms. Additionally, firm size, determined by the natural log of total assets, serves as a control variable. The secondary data for the study is sourced from the annual reports and financial statements of ten firms in the consumer goods, industrial goods, and conglomerate sectors listed on the Nigerian Stock Exchange as of December 31, 2020. The study employed a correlation research design, the study utilizes panel data analysis, ordinary least squares (OLS) method, Pearson correlation, and t-test statistics for data analysis, while also testing for normality, multicollinearity, and autocorrelation of the data. The findings reveal that both EPS and DPS positively and significantly impact ROE, indicating the relevance of dividend policy in influencing the financial performance of quoted selected firms in Nigeria. The study recommended that firms adopt optimal dividend policies balancing dividends and retained earnings for future growth, consider shareholder preferences, monitor earnings and dividend patterns for consistency, and enhance profitability and liquidity to attract more investors. The time scope covered by the research can no longer be considered current for research purposes due to recent developments since the completion of the study in 2022. Therefore, this study relies on more recent data from the Nigerian industrial goods sector to fill the observed research gap.

fundamental assumptions: firstly, that there exists asymmetric information in economic transactions where one party possesses information that the other lacks; secondly, that signalling involves the transmission of signals to convey pertinent aspects of quality or intentions; and thirdly, that recipients interpret these signals and adjust their behavior accordingly. Advocates of signalling theory argue its efficacy on several fronts. It enhances resource allocation efficiency by reducing information asymmetries [21], fosters credibility and trust between parties through honest signals [22], and confers a competitive advantage by allowing differentiation based on perceived qualities or intentions [21]. However, critics highlight challenges associated with signalling theory. They argue that signalling can be costly in terms of effort, time, or resources for the sender [21], and ensuring the reliability of signals poses difficulties, as not all signals may accurately reflect underlying qualities [22]. Moreover, the conditions under which signalling equilibria may break down remain a topic of ongoing research and debate [21]. In the context of Nigerian industrial goods firms, signalling theory provides valuable insights into how firms use dividend policy to communicate their financial health and future prospects to investors. High dividend payouts may signal stability and

confidence in earnings, potentially attracting income-seeking investors. Conversely, lower dividends might indicate financial constraints or a strategic decision to retain earnings for growth opportunities [23]. Researchers such as [23] were of the opinion that comprehensive corporate strategies can strengthen signalling mechanisms and improve financial performance. In summary,

Dividend relevance theory

The Dividend Relevance Theory, first put forward by [24], Claims that dividend policy does impact stock prices and firm value in real-world settings. It aims to explain the link between dividend policy and a firm’s financial performance. This review evaluates the theory’s basic assumptions, arguments for and against it, all in relation to the effect of dividend policy on the financial performance of listed industrial goods firms in Nigeria. The Dividend Relevance Theory rests on several assumptions. Firstly, it assumes that investors view dividends as the main source of income from their investments, preferring current income over future capital gains. Secondly, the theory assumes that managers and shareholders have asymmetric information, leading to the belief that dividends signal a firm’s financial strength and profitability. Lastly, the theory assumes that capital markets are efficient, allowing investors to reinvest dividend income at a similar rate of return as the firm. [25], contend that dividends are crucial in determining a firm’s financial performance. Firstly, dividends offer a stable and predictable income stream for investors, which can attract shareholders and keep stock price stable. Secondly, dividends can be a sign of a firm’s profitability and growth potential, as companies that pay dividends regularly are likely to have stable and solid financial foundations. Finally, supporters argue that keeping a dividend policy enables firms to avoid unproductive investment opportunities and

signalling theory offers a robust framework for understanding how signals influence economic decisions and outcomes. In the realm of Nigerian industrial goods firms, dividend policy serves as a strategic tool for signalling financial strength and growth potential, thereby shaping investor perceptions and influencing market valuations based on perceived signals of corporate health.

concentrate on projects with higher returns, possibly leading to improved financial performance. [1], propose that dividend policy has no significant effect on a firm’s financial performance. Firstly, they argue that investors care more about a firm’s overall financial health, growth potential, and future profits than the amount or timing of dividend payments. Secondly, critics suggest that dividend payments may restrict a firm’s ability to invest in profitable opportunities, potentially hampering long-term growth and profitability. Lastly, opponents point out the existence of dividend tax penalties, which may deter investors from considering dividends as a major income source. The dividend relevance theory is the theoretical framework that underpins this research work as it seeks to explain the preference of shareholders for dividend payment as return for their investment in shares. The Dividend Relevance Theory, initially formulated by [24], provides insights into the relationship between dividend policy and a firm’s financial performance. While the theory assumes that dividends play a crucial role in signaling financial health and attracting investors, opposing arguments suggest that other factors, such as overall financial health and growth prospects, hold greater importance. Given the specific context of listed industrial goods firms in Nigeria, further empirical research is warranted to understand the impact of dividend per share and payout on their financial performance.

METHODOLOGY

The study used the ex post facto research design to construct the research model. The population of this study consist of the entire 13 listed Industrial goods firm in Nigeria. However, the sample size consists of 10 of the listed firms. The purposeful sampling technique was used in order to forge a study sample that is representative of the industrial goods sector in Nigeria. In this investigation, the study will employ pre-existing secondary data to examine the subject matter. The study scrutinized annual data spanning from 2012 to 2023, obtained from a selected set of companies included in the selected sample. This study used descriptive statistics, variance inflation factors, hausman specification tests, likelihood ratio tests, correlation, and panel regression analysis methods. The data analysis was done with the E-view Statistics software, and regression analysis was the main tool for testing the

hypotheses. The analysis follows this model, which was based on [20], to study the data:

$$ROA_{it} = \beta_0 + \beta_1DPS_{it} + \beta_2DPR_{it} + \beta_3REV_{it} + \epsilon_{it} \dots\dots\dots (i)$$

Where:

ROA= Return on Assets

DPS= Dividend Per Share Ratio

DPR = Dividend Pay-out Ratio

REV = Revenue

The aproir expectation of the study is that an increase in dividend payout rates will lead to an increase in the financial performance of sampled enterprises.

Table 1: Measurement of Variables

S/N	Proxy	Type	Measurement	Source
1	Return on Assets	Dependent	Profit before interest and tax ÷ total assets × 100	[18],
2	Dividend per share Ratio	Independent	Total annual dividend declared ÷ total number of issued up ordinary shares	[10]
3	Dividend payout ratio	Independent	100 * (Total dividend declared ÷ Profit after tax)	[3]
4	Revenue	Control	Total income earned from the sale of goods	[2]

Source: Researchers Compilation (2024)

RESULTS AND DISCUSSION

Descriptive Statistics

Descriptive statistics is used to summarize and describe the main features of a dataset. They provide simple summaries about each of the individual variables in the sample and the measures,

including measures of central tendency and measures of variability. The descriptive statistics helps to give an overview of the individual properties of the variables of interest.

Table 2: Descriptive Statistics

	ROA	DPS	DPR	REV
Mean	7.771333	2.517583	0.373392	113.3720
Median	7.150000	0.390000	0.117106	6.900769
Maximum	53.90000	22.60000	2.415459	2208.090
Minimum	-29.60000	0.000000	0.000000	0.077092
Std. Dev.	13.60845	4.877083	0.479517	326.2923
Skewness	0.525287	2.646474	1.288314	4.098203
Kurtosis	4.963826	9.825042	4.524404	21.53390
Jarque-Bera	24.80160	372.9825	44.81410	2053.432
Probability	0.000004	0.000000	0.000000	0.000000
Sum	932.5600	302.1100	44.80705	13604.63
Sum Sq. Dev.	22037.61	2830.527	27.36240	12669536
Observations	120	120	120	120

Source: Eviews10 (2024)

The descriptive statistics table presents key metrics for four variables: Return on Assets (ROA), Dividends per Share (DPS), Dividend Payout Ratio (DPR), and Revenue (REV). The mean ROA is 7.77%, indicating the average return generated on total assets. DPS shows a mean of 2.52 units per share, with a notable skewness of 2.65, suggesting a right-skewed distribution where a few high values pull the mean upwards. The median DPS of 0.39 suggests that half of the observations fall below this value. The DPR mean of 0.37 reflects the average

percentage of earnings paid out as dividends, with a positive skewness indicating a tendency towards higher values. Revenue, with a mean of 113.37, exhibits significant skewness and kurtosis, suggesting a highly skewed and peaked distribution. The maximum ROA of 53.9% and minimum of -29.6% indicate substantial variability. Jarque-Bera tests confirm non-normality for all variables, with significant probability value of 0.001, indicating departures from normal distribution assumptions. Overall, these statistics provide a detailed overview of the distributional

characteristics and central tendencies of the dataset, highlighting the variability and skewness present in these financial metrics.

Correlation Analysis

Correlation analysis measures the strength and direction of the relationship between two variables. It helps in understanding whether and how strongly pairs of variables are related. The null hypothesis states that there is no correlation between two variables of interest. The decision rule

states to reject the null hypothesis if the p-value is less than the significance level of 0.05, which shows that there is a significant correlation between the variables. If the p-value is greater than the significance level, fail to reject the null hypothesis.

Table 3: Correlation Analysis

Covariance Analysis: Ordinary

Date: 07/21/24 Time: 00:03

Sample: 2012 2023

Included observations: 120

Correlation Probability	ROA	DPS	DPR	REV
ROA	1.000000 ----			
DPS	0.195308 0.0325	1.000000 ----		
DPR	0.307244 0.0006	0.499157 0.0000	1.000000 ----	
REV	0.135041 0.1414	0.819276 0.0000	0.378863 0.0000	1.000000 ----

Source: *Eviews10 (2024)*

The correlation table presents the relationships between Return on Assets (ROA) and three other variables: Dividends per Share (DPS), Dividend Payout Ratio (DPR), and Revenue (REV). The correlation coefficient between ROA and DPS is 0.195, with a probability value of 0.0325 is less than 0.05 indicating a weak positive relationship. This suggests that as ROA increases, there is a slight tendency for dividends per share to also increase, although the correlation is not strong. The correlation coefficient between ROA and DPR is stronger at 0.307, with a probability value of 0.0006

indicating a significant positive relationship. This suggests that firms with higher return on assets tend to have a higher dividend payout ratio, implying they distribute a larger portion of their earnings as dividends. Lastly, the correlation between ROA and REV is 0.135, with a probability value of 0.1414 indicating a weak positive relationship. This suggests that there is a slight tendency for firms with higher return on assets to also have higher revenues, although again the correlation is not significant.

Multicollinearity Test

The variance inflation factor (VIF) test is used to detect multicollinearity in regression models. High VIF values indicate that the independent variables are highly correlated, which can affect the stability and interpretation of the regression coefficients. The null hypothesis states that there is no multicollinearity among the independent variables. The decision rule states that the null hypothesis should be rejected if the uncentered VIF values are greater than 10. This means that if the uncentered

VIF value is greater than 10, it indicates high multicollinearity. However, if the VIF value is less than 10, multicollinearity is not considered problematic.

Table 4: Variance Inflation Factor

Variance Inflation Factors

Date: 08/14/24 Time: 05:44

Sample: 2012 2023

Included observations: 120

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
DPR	0.001275	2.352387	1.557167
DPS	0.001255	2.127132	1.854883
REV	0.000374	3.594780	1.274365
LROA	1.55E-05	2.656495	1.029712
C	0.007929	5.524308	NA

Source: *Eviews10 (2024)*

The observed uncentered VIF values for this regression model are 2.352387, 2.127132, 3.594780, 2.656495 and 5.524308. These figures are all below the value of 10. Therefore, the study rejects the null

hypothesis and concludes that there is no significant multicollinearity problem in the regression model.

Heteroskedasticity Test

The Breusch-Pagan heteroskedasticity test, is used to detect whether the variance of the errors in a regression model is constant. Heteroskedasticity can lead to inefficient estimates and affect hypothesis tests. The null hypothesis states that there is homoskedasticity (constant variance of

errors). The decision rule states that if the p-value is less than the significance level of 0.05, the null hypothesis should be rejected. This means that heteroskedasticity is present if the p-value is less than 0.05. If the p-value is greater than the significance level, fail to reject the null hypothesis.

Table 5: Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.45789	Prob. F(4,65)	0.2243
Obs*R-squared	4.27349	Prob. Chi-Square(4)	0.2331
Scaled explained SS	3.89452	Prob. Chi-Square(4)	0.2748

Source: *Eviews10 (2024)*

The test results show that the F-statistic is 1.45789 with a corresponding p-value of 0.2243, indicating that the null hypothesis of homoskedasticity cannot be rejected at any conventional significance level. This result suggests that heteroskedasticity is not present in the model. The Obs*R-squared value of 4.27349 and the Scaled Explained SS value of

3.89452, both with p-values of 0.2331 and 0.2748, respectively, further confirm the absence of heteroskedasticity. Overall, the test results strongly indicate the presence of homoskedasticity in the model, which means that the standard errors of the coefficients are likely to be reliable and no corrective measures are needed.

Hausman Specification Test

The Hausman test is used to determine whether a random effects model or a fixed effects model is more appropriate for panel data. The null hypothesis states that the random effects model is appropriate (no correlation between the individual effects and the regressors). The decision rule states

to reject the null hypothesis if the p-value is less than the 0.05 level of significance. If the p-value is greater than the significance level, fail to reject the null hypothesis and use the random effects model.
Ho= Random effect is more appropriate
Ho= Fixed effect is more appropriate

Table 6: Hausman Specification 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	8.933129	4	0.0628

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
DPR	-0.098116	-0.076855	0.000877	0.4727
DPS	0.102885	0.048531	0.001085	0.0989
REV	-0.007951	0.059411	0.001018	0.0347
LROA	0.063851	0.065688	0.000009	0.5466

Source: *Eviews10 (2024)*

The observed cross section random probability value is 0.0628. Therefore, the tests null hypothesis cannot be rejected. This means that the random

effect regression method is more effective for testing the research model.

Test of Research Hypothesis

The study tests its hypothesis using the random effect regression analysis. Random effect regression is used in panel data analysis when the individual-specific effects are assumed to be uncorrelated with the independent variables. It allows for more efficient estimates compared to fixed effects models when the assumption holds. The null hypothesis states that the relationship between the

independent variable and the dependent variable is not significant. The decision rule states to reject the null hypothesis if the p-value is less than 0.05. If the p-value is not less than 0.05, fail to reject the null hypothesis. This means that the relationship between the variables are significant of the associated p-value is less than 0.05.

Table 7: Random Effect Regression

Dependent Variable: LROA
 Method: Panel EGLS (Cross-section random effects)
 Date: 08/14/24 Time: 04:32
 Sample: 2012 2023
 Periods included: 12
 Cross-sections included: 10
 Total panel (balanced) observations: 120
 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPR	-0.076855	0.052489	-1.464210	0.1480
DPS	0.048531	0.051974	0.933750	0.3539
REV	0.059411	0.036813	1.613868	0.1114
LROA	0.065688	0.005155	12.74320	0.0000
C	1.095480	0.169475	6.463950	0.0000

Effects Specification		S.D.	Rho
Cross-section random		0.289738	0.6763
Idiosyncratic random		0.200458	0.3237

Weighted Statistics			
R-squared	0.708612	Mean dependent var	0.473102
Adjusted R-squared	0.690681	S.D. dependent var	0.379402
S.E. of regression	0.207993	Sum squared resid	2.811962
F-statistic	39.51765	Durbin-Watson stat	1.461131
Prob(F-statistic)	0.000000		

Unweighted Statistics			
R-squared	0.794213	Mean dependent var	2.230789
Sum squared resid	8.820597	Durbin-Watson stat	0.465801

Source: *Eviews10 (2024)*

The regression test is used to assess the relationship between two or more variables. The null hypothesis states that there is no significant relationship between the variables. The decision rule states to reject the null hypothesis if the probability values observed are less than 0.05. This means that the relationship between variables is statistically significant if the associated probability values are less than 0.05. The study coefficient is the direction of the relationship. A positive coefficient denotes a positive relationship while a negative coefficient indicates a negative relationship. The independent variables included Dividend Payout Ratio (DPR), Dividend per Share (DPS). The findings revealed that DPR had a negative coefficient of -0.076855 with a t-statistic of -1.464210 and a p-value of 0.1480, indicating a statistically insignificant effect on ROA. DPS exhibited a positive coefficient of 0.048531, with a t-statistic of 0.933750 and a p-value of 0.3539, also

showing an insignificant effect. In contrast, LROA demonstrated a highly significant positive influence on ROA, with a coefficient of 0.065688, a t-statistic of 12.74320, and a p-value of 0.0000, indicating that increases in LROA are strongly associated with increases in ROA. The constant term was also significant, with a coefficient of 1.095480 and a p-value of 0.0000. The model's fit was reflected in an R-squared of 0.708612 and an Adjusted R-squared of 0.690681, explaining approximately 69% of the variability in ROA. The F-statistic of 39.51765 with a p-value of 0.000000 confirmed the overall significance of the model. However, the Durbin-Watson statistic of 1.461131 suggested some moderate positive autocorrelation in the residuals. The analysis underscores that while LROA is a significant predictor of ROA, other variables such as DPR, DPS, and REV do not exhibit statistically significant effects in this model.

Discussion of Findings

This study focused on the effect of dividend per share and payout on the financial performance of listed industrial goods firms in Nigeria. The study found that dividend per share and payout was not significant in affecting the financial performance of sample firms. The findings of this study were in line with the findings of [12], [7], [3] and [11] who

all found that dividend policy was not significant in affecting the financial performance of sampled firms. The findings of this study are in contrast with the findings of [2], [5], [10], [11] and [13] who all found that dividend policy was significant in affecting probability.

CONCLUSION AND RECOMMENDATION

This study examines the effect of dividend per share and payout on financial performance of listed industrial goods firms in Nigeria. Arising from the results obtained from the data collected and analyzed together with the test of hypotheses, it was found that dividend per share and dividend pay-out was not statistically significant in affecting the return on asset of sample firms. The study concluded on the basis of these insignificant relationships that dividend per share and dividend pay-out was not significant in affecting the financial performance of listed industrial goods firms in Nigeria.

The study recommended the following:

- i Since Dividends per Share (DPS) and Dividend Pay-out Ratio (DPR) did not show significant effects on Financial performance, firms should reassess their dividend distribution strategies. Consideration should be given to adjusting dividend pay-out ratios to ensure they do not compromise investment in growth opportunities or financial stability.
- ii There should be increased training in firms to help meet up with the optimal dividend policy.

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