

DIVIDEND PAYOUT RATIO, DIVIDEND PER SHARE AND FINANCIAL PERFORMANCE OF LISTED MANUFACTURING FIRMS IN NIGERIA

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ABSTRACT

This study investigates the effect of dividend policy on the financial performance of listed manufacturing firms in Nigeria and examines the moderating role of institutional ownership. Using an ex-post facto research design, panel data from twenty-five firms listed on the Nigerian Exchange Group for the period 2014–2023 were analyzed through panel regression and moderated regression models. Dividend policy was proxied by dividend payout ratio (DPR) and dividend per share (DPS), while return on assets (ROA) measured firm performance, with firm size, leverage, and firm age included as control variables. The results show that DPR has a positive but statistically insignificant effect on firm performance, whereas DPS has a positive and significant impact on ROA. Institutional ownership exhibits a positive but insignificant direct relationship with performance. Moderation analysis indicates that institutional ownership does not significantly moderate the DPR–ROA relationship but significantly and negatively moderates the DPS–ROA relationship. Additionally, firm size and firm age negatively affect ROA, while leverage has a positive and significant effect. The study concludes that dividend per share (DPS) is a more reliable determinant of firm performance than dividend payout ratio. and recommends maintaining stable DPS policies alongside stronger corporate governance mechanisms.

Keywords: Dividend Policy, Institutional Ownership, Firm Performance.

Introduction

Financial performance, dividend policy, and firm value remain central yet persistently debated constructs in corporate finance research. Financial performance reflects a firm's efficiency in deploying its asset base to generate sustainable earnings, while dividend policy represents a strategic decision concerning the allocation of corporate profits between shareholder distributions and retained earnings for reinvestment. Classical and contemporary finance literature suggests that dividend decisions may influence firm value through signalling financial strength, mitigating information asymmetry, and shaping investor expectations. However, empirical evidence on the dividend–performance nexus remains inconclusive across different institutional and economic environments (Santosa et al., 2020). Dividend policy not only determines the proportion of earnings distributed to shareholders but also ensures the availability of internal funds necessary for operational growth and long-term investment sustainability (Ahmed et al., 2021; Sanyaolu, 2020). Consequently, dividend determination constitutes a critical financial management function capable of influencing firm valuation, market perception, and corporate growth trajectories (Harjito & Martono, 2020).

The theoretical foundation of this relationship is anchored in Agency Theory advanced by Michael C. Jensen and William H. Meckling (1976), which posits that dividend payments serve as a mechanism for reducing agency conflicts by limiting managerial discretion over free cash flow. By distributing excess earnings, firms potentially curtail managerial opportunism and align managerial actions with shareholder wealth maximization objectives. Nonetheless, empirical findings from emerging markets provide mixed support for this proposition. Evidence from Nigeria and comparable contexts reports inconsistent or statistically insignificant associations between dividend policy and firm performance, suggesting that dividend distributions do not consistently translate into improved profitability or firm value (Ideweke & Murad, 2019; Uwuigbe et al., 2020; Ajao & Adebayo, 2021). These inconsistencies raise concerns regarding the contextual validity of the disciplinary role of dividends in environments characterized by governance weaknesses and concentrated ownership structures.

A critical limitation in extant Nigerian literature lies in the predominant reliance on a single dividend proxy most commonly dividend payout ratio (DPR). While DPR captures the proportion of earnings distributed to shareholders, it does not fully reflect the absolute cash benefits received by investors. Alternative measures such as dividend per share (DPS) convey distinct informational and signalling properties, as they represent the actual cash return attributable to each share. The failure to jointly examine multiple dividend indicators may obscure important nuances in how dividend policy influences firm performance. Empirical studies across developed and developing economies rarely integrate DPR and DPS within a unified analytical framework, and even fewer incorporate earnings-based indicators to provide a multidimensional perspective (Adebayo & Salami, 2020; Adeiza et al., 2020; Jatoi & Rasheed et al., 2023; Nguyen et al., 2021; Ukpong & Ukpe, 2023). This unidimensional measurement approach limits comprehensive understanding of dividend policy effects, particularly within sector-specific contexts such as manufacturing.

Beyond measurement concerns, governance structures may significantly condition the dividend–performance relationship. Institutional ownership represents a prominent corporate governance mechanism capable of influencing both dividend decisions and financial outcomes. Institutional investors typically possess the expertise, financial motivation, and control capacity to improve governance efficiency, enhance transparency, and reduce agency costs, thereby potentially improving firm performance (Chen et al., 2021; Li & Lu, 2023). Furthermore, institutional investors often advocate dividend strategies that balance immediate shareholder returns with long-term reinvestment opportunities, thereby supporting corporate value creation and performance sustainability (Kumar & Singh, 2021; Garcia & Perez, 2023).

However, concentrated ownership may also generate principal–principal conflicts, particularly in emerging markets where dominant shareholders can prioritize private benefits at the expense of minority investors. In such contexts, dividend decisions may be distorted to serve controlling interests, potentially weakening firm performance (Adeleke et al., 2023). Nigeria’s corporate landscape is characterized by significant ownership concentration and governance challenges, making it an appropriate setting for examining whether institutional ownership strengthens or attenuates the performance implications of dividend policy. While prior studies largely focus on the direct relationship between dividend policy and financial performance, limited empirical attention has been devoted to the moderating role of ownership concentration, particularly among manufacturing firms listed on the Nigerian Exchange Group.

Accordingly, two notable gaps persist in the literature. First, existing Nigerian studies frequently adopt a single dividend proxy, thereby neglecting the complementary insights obtainable from jointly examining dividend payout ratio and dividend per share. Second, the conditional role of institutional ownership in shaping the dividend–performance nexus remains underexplored within the Nigerian manufacturing sector. Addressing these gaps is essential for advancing a context-sensitive understanding of dividend policy effectiveness in emerging markets characterized by concentrated ownership and governance constraints.

It is in light of the issues raised by this study that answers to the following questions will be provided; how does dividend payout ratio affect return on assets of listed manufacturing firms in Nigeria? How can dividend per share impact return on assets of listed manufacturing firms in Nigeria? How institutional ownership have a moderating effect on the relationship between dividend policy and the return on assets of listed manufacturing firms in Nigeria?

Statement of Hypotheses

- H₀₁: Dividend Payout Ratio has no significant effect on financial performance of listed manufacturing companies in Nigeria.
- H₀₂: Dividend Per Share has no significant effect on financial performance of listed manufacturing companies in Nigeria.
- H₀₃: Institutional ownership has no significant effect on the financial performance of listed manufacturing companies in Nigeria.
- H₀₄: Institutional ownership has no significant moderating effect on the relationship between dividend payout ratio and financial performance of listed manufacturing companies in Nigeria.
- H₀₅: Institutional ownership has no significant moderating effect on the relationship between dividend per share and financial performance of listed manufacturing companies in Nigeria.

Literature Review

Financial Performance

For companies to thrive and last longer, they must turn a sufficient profit each year. A company's profit margin is a key indicator of its financial performance, and an organization's main goal is to maximize profits for its shareholders. Therefore, it is crucial to comprehend the idea of financial performance. Olusola et al. (2022) describe financial performance as a firm's ability to optimize earnings from its assets and resources. This term also refers to the overall measurement of an organization's financial strength over a specific period. Financial performance assesses how effectively and efficiently an organization achieves its profit maximization goals and manages its assets, liabilities, and shareholders' financial interests. According to Malesev et al. (2021), financial performance can also be expressed as the result obtained from various activities carried out within the available financial resources. Financial performance can be seen through the results of financial statement analysis or financial ratio analysis.

Dividend Policy

Dividend policy reflects a company's approach to distributing profits to shareholders. This research work employed these metrics: Dividend Payout Ratio (DPR) and Dividend per Share (DPS), which reveal the extent and pattern of profit distribution over time. The financial rewards to shareholders are determined by dividend policies, which are appealing when they align with the interests of shareholders, employers, and employees. As a result, dividend policies have a positive impact on all stakeholders' financial development and outcomes, which is reflected in the firms' performance.

Dividend policy is the set of rules and guidelines that a business uses to determine whether to pay dividends to its shareholders (Murage & Emba, 2019). The plan used to specify how much of the dividends will be reinvested or shared is known as the dividend policy (Arnott, 2003). The firm's dividend structure is guided by its policies regarding financial matters. Dividend policies are maintained in the direction of progressive results. Contributing to dividend payout rates and responsiveness, dividend policies are fair in their prompt responses to boost support and bring about positive changes in emerging businesses and economies.

Institutional Ownership

Institutional share ownership represents the proportion of shares held by institutional investors in a company. The ratio of shares held by the largest corporate investors to the total number of ordinary shares issued in that year was assessed (Abubakar, 2022). Institutional shareholders is the portion of a limited liability company's shares that is held by investment firms, private foundations, mutual or pension funds, and other prominent organisations over the total numbers of issued shares. Also, domestic government institutions, domestic financial institutions, local corporate institutions, investment companies, foreign financial institutions, multinational companies, foreign investment companies, and other institutions that own the largest percentage of shares of a company are viewed as institutional owners (Feng, 2010). Institutional ownership is described by Per-Olof et al. (2007) as specialised financiers that manage investments collectively on behalf of other investors toward a certain goal in terms of acceptable risk, income maximisation and claim maturity.

Relationship between Dividend Policy and Financial Performance

A stream of literature supports the relevance of dividend policy in enhancing firm performance and value, particularly in emerging markets where information asymmetry and agency conflicts are pronounced. For instance, Lucky and Uzokwe (2019), examining 20 quoted Nigerian firms between 2008 and 2017, report that dividend policy significantly enhances firm value. Comparable findings emerge from Indonesia, where Triani and Tarmidi (2019) show that dividend payout decisions significantly increase firm value among property and real estate firms, reinforcing the signaling argument that dividends convey credible information about corporate strength and future prospects.

Evidence based on performance-sensitive and market-oriented proxies further strengthens this perspective. Emuze (2020) finds that earnings per share (EPS), price-earnings ratio (PER), and dividend yield (DY) are positively and significantly associated with accounting-based measures such as ROA and ROE among Nigerian listed firms. Similarly, Foong and Malek (2022) document significant relationships between EPS and both ROA and ROE in Malaysian consumer product and service firms, while PER is significantly linked to ROA. Collectively, these findings suggest that per-share and market-based indicators may transmit richer informational content to investors than conventional payout ratios.

More recent sector-specific evidence aligns with this relevance argument. Jakataofik et al. (2023), focusing on Indonesian food and beverage firms, demonstrate that dividend payout ratio (DPR) significantly influences stock prices. Although profitability (ROA) and liquidity do not directly affect stock prices, solvency and activity ratios significantly influence

both DPR and stock prices, indicating an indirect channel through which financial performance affects firm value via dividend policy.

Notwithstanding this supportive evidence, a contrasting stream of research questions the robustness of the dividend–performance linkage. Ejem and Ogbonna (2019) find that while earnings significantly affect firm value, dividend per share (DPS) does not exert a significant influence. In a similar vein, Chinnaiyah (2020), examining firms listed on the National Stock Exchange of India, reports a positive but statistically insignificant relationship between dividend payout and firm value. These outcomes imply that once earnings power is properly controlled for, the incremental explanatory capacity of dividend measures may diminish.

Sectoral investigations within Nigeria further reveal instability and, in some cases, adverse effects. Adeiza et al. (2020) observe largely negative and insignificant associations between DPR and performance indicators (ROA, ROE, and net profit margin) among oil and gas firms, with statistical significance varying across years. Consistent with this pattern, Foong and Malek (2022) report that DPR does not significantly relate to ROA or ROE, even though EPS and PER remain significant. Such findings suggest that aggregate payout ratios may lack explanatory strength when isolated from broader earnings dynamics.

Beyond these opposing strands, a third line of inquiry highlights more nuanced and context-dependent outcomes. Ugwu, Onyeka, and Okwa (2020) show that while dividend proxies are positively associated with ROE among Nigerian consumer goods firms, only DPS demonstrates statistical significance; DPR remains negligible. This divergence between proportional and per-share measures indicates that investors may respond more strongly to absolute cash returns than to payout proportions.

Further complicating the picture, some studies identify potential trade-offs between payout and growth. Lumapow and Tumiwa (2017) document a negative but significant relationship between dividend policy and firm value among Indonesian manufacturing firms, implying that higher payouts may constrain reinvestment opportunities. Similarly, Emuze (2020) reports that certain dividend characteristics, such as timing of dividend payments, are negatively yet significantly related to ROA and ROE, even when other proxies display positive effects. These heterogeneous findings underscore the multidimensional nature of dividend policy and its varied implications across institutional settings.

Taken together, these apparent contradictions can be reconciled along several analytical dimensions. In methodological terms, measurement heterogeneity emerges as a central explanatory factor. Studies relying exclusively on DPR frequently report insignificant or inconsistent effects, whereas those incorporating EPS, PER, or DPS tend to observe stronger and more stable relationships. This pattern implies that payout ratios alone may inadequately capture the signaling and informational attributes embedded in per-share or market-based metrics.

From a structural standpoint, sectoral and institutional context appears decisive. Consumer-oriented industries such as food and beverage or consumer goods often exhibit more stable dividend–value linkages, possibly due to predictable cash flows and lower earnings volatility. By contrast, capital-intensive sectors like oil and gas tend to display weaker or negative associations, reflecting reinvestment demands, earnings cyclicalities, and exposure to macroeconomic shocks. What appears contradictory across studies may therefore reflect rational differences in industry life cycles and financing needs.

In addition, the transmission mechanism may operate indirectly rather than directly. The Indonesian evidence (Jakataofik et al., 2023) demonstrates that solvency and activity ratios influence stock prices through DPR, positioning dividend policy as a mediating variable between financial performance and firm value. Studies that omit such mediation structures may consequently underestimate the true economic significance of dividends.

Finally, the agency and signaling roles of dividends are inherently context-sensitive. In environments characterized by weaker governance structures and higher information asymmetry, dividends may function as credible monitoring and disciplining mechanisms, thereby enhancing firm value. Conversely, in settings marked by financing constraints or high-growth opportunities, substantial payouts may crowd out productive investment and yield neutral or negative performance effects.

The variation in actual outcomes does not necessarily invalidate existing theories; instead, it highlights that the advantages of dividends depend on specific conditions. Research shows that factors such as sectoral structure, model choice, measurement approach, and institutional quality influence how dividend policies impact business performance. Recognizing these factors provides a stronger foundation for future empirical studies and offers a clearer explanation for past inconsistencies.

Institutional Ownership as a Moderator

This section systematically examines studies investigating how dividend policy impacts the relationship between Institutional Ownership, dividend policy metrics and financial performance. This analysis aims to uncover the findings of existing literature regarding the interplay among these variables.

Mahmoud et al. (2023) investigated institutional ownership's moderating impact on firm characteristics size, profitability, and dividends in Jordanian industrial firms. Their research revealed that both firm size and profitability positively influenced dividends, while institutional ownership exhibited mixed effects. Specifically, the impact of institutional ownership varied, sometimes negatively, depending on factors like firm age and structure.

In Indonesian consumer goods companies, Hidayat and Purnamasari (2023) demonstrated that institutional ownership positively moderates the effect of profitability on company value, though it does not affect capital structure.

In another example, Yuwono and Aurelia (2021) found that institutional ownership, when paired with profitability and dividend policy positively influences firm value.

In Indonesia, studies by Effendi et al. (2021) and Anggita et al. (2021) underscored the positive influence of institutional ownership on company value. However, contrasting findings from Bakhtiar et al. (2020) and Azizah (2020) noted negative impacts, indicating the complexity of institutional ownership's role.

Theoretical Framework

Agency Theory

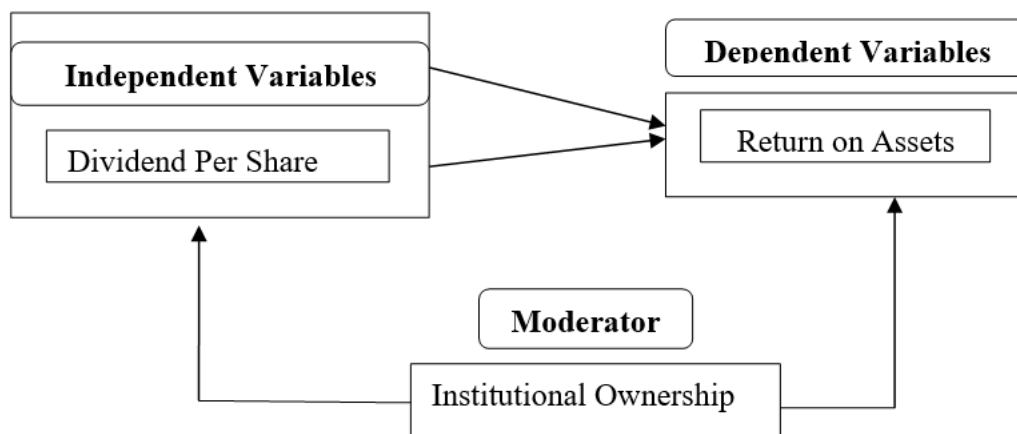
This study is anchored on Agency Theory as propounded by Michael C. Jensen and William H. Meckling (1976), which explains the conflict arising from the separation of ownership and control in modern corporations. The theory argues that managers (agents) may pursue personal interests at the expense of shareholders (principals), thereby generating agency costs such as monitoring, bonding, and residual losses. These conflicts are particularly pronounced in emerging markets like Nigeria, where ownership concentration, weak enforcement of governance regulations, and information asymmetry heighten managerial discretion (La Porta et al., 2000; Uwuigbe et al., 2018).

Agency Theory further provides a justification for dividend policy as a governance mechanism. Michael C. Jensen (1986) posits that dividend payments reduce free cash flow under managerial control, thereby limiting overinvestment in negative net present value projects and limiting empire-building tendencies. By distributing earnings through dividend payout ratio (DPR) and dividend per share (DPS), firms subject themselves to capital market discipline and enhanced external scrutiny. Empirical studies (e.g., Al-Najjar & Kilincarslan, 2019; Kajola et al., 2021) support the view that dividends can function as a disciplinary tool that improves governance quality and firm performance.

However, in weak governance environments, dividend payments may be symbolic or influenced by dominant shareholders, reducing their effectiveness as a monitoring device (Easterbrook, 1984; Farooq & Ahmed, 2019). This conditional effect underscores the role of institutional ownership as an additional governance mechanism. Institutional investors such as pension funds, insurance firms, and mutual funds possess monitoring expertise, voting power, and financial complexity that enhance oversight and reduce information asymmetry (Shleifer & Vishny, 1986; Elyasiani & Jia, 2010). Their presence strengthens board independence, disclosure quality, and accountability, thereby reinforcing the value-enhancing role of dividend policy.

Accordingly, institutional ownership is conceptualized as a moderating variable in the dividend–performance nexus. In firms with high institutional ownership, monitoring intensity is stronger, managerial opportunism declines, and dividend decisions are more likely to reflect genuine profitability. Conversely, weak institutional presence may dilute the disciplinary value of dividends. Drawing from Agency Theory, the central proposition is that while dividend policy reduces agency costs, its effectiveness in enhancing firm performance is strengthened when supported by vigorous institutional monitoring, particularly among listed manufacturing firms in Nigeria.

Conceptual Framework



Source: Adapted from the work of Rahma et al. (2023)

Methodology

The study is based on ex-post facto research design while the population includes thirty four (34) manufacturing firms listed on the Nigerian Exchange Group during the 2014-2023 period. The category of data used in the study is secondary with a quantitative approach. The secondary data collection method was done by observing the data sources of manufacturing companies in Nigeria obtained from (<https://ngxgroup.com/>), and company websites. The research sample size consists of twenty five (25) companies and was obtained by using filtering criteria, i.e. the method of selecting samples based on predetermined criteria. Criteria used for sampled manufacturing companies obtained from ngxgroup.com include: (i) The reporting companies most have been listed on Nigeria Exchange Group (ii) The reporting companies most have consistent audited annual reports/financial statements available on the website of the Nigeria Exchange Group and/or other relevant sources for the period under study. Analysis of the relationship between the variables is shown through the following multiple linear regression model.

$$ROA_{it} = \beta_0 + \beta_1 DPR_{it} + \beta_2 DPS_{it} + \beta_3 FSIZE_{it} + \beta_4 LEV_{it} + \beta_5 FAGE_{it} + \varepsilon_{it} \dots \dots \dots (1)$$

$$ROA_{it} = \beta_0 + \beta_1DPR_{it} + \beta_2DPS_{it} + \beta_3ISO + \beta_4DPR_{it} * ISO + \beta_5DPS_{it} * ISO + \beta_6FSIZE_{it} + \beta_7LEV_{it} + \beta_8FAGE_{it} + \epsilon_{it} \dots \dots \dots (2)$$

Where:

ROA_{it}= Return on Asset of firm i in year t. DPR_{it}= Dividend Payout Ratio of firm i in year t, DPS_{it}= Dividend per Share of firm i in year t, ISO_{it}= Institutional Ownership of firm i in year t, FSIZE_{it} = Firm Size of firm i in year t, LEV_{it}= Leverage of firm i in year t, FAGE_{it}= Firm Age, β₀= constant of regression equation, β₁- β₇ = Beta coefficients of the regression equation, ε_{it} = error term to capture variations in the model

Table 1: Operationalization of variables, their definitions and measurements

Variables	Symbol	Definitions	Measures
Dependent Variables	ROA	Return on Assets	Profit After-tax to Total Assets
Independent Variables	DPR	Dividend payout ratio	Total Dividends Paid to Net sIncome
	DPS	Dividend Per Share	Dividend Paid to Outstanding Ordinary Share
Moderating Variable	ISO	Institutional Ownership	Number of shares owned by the institution to Number of outstanding shares x 100%
Control Variables	FSIZE	Firm size	Natural log of Total Asset
	LEV	Leverage	Total Debt to Total Asset
	FAGE	Firm Age	Current year minus year of Listing

Source: Constructed by the Researcher

Results and Discussion of Findings

The results and interpretations of the data gathered for the study are shown in this part. These statistics are inferential and descriptive. Additionally, the part includes the test of hypotheses, outcomes, and policy implications of the study's findings.

Descriptive Statistics

Table 2: Descriptive Statistics of the study variables

Variables	Obs.	Mean	Std. Dev.	Min.	Max.
ROA	250	0.0733	0.1223	- 0.3010	0.7927
DPR	250	0.3737	0.6525	-1.5537	6.2102
DPS	250	0.5505	0.7062	0.0006	2.9358
ISO	250	0.5512	0.2424	0	0.9454
FSIZE	250	10.5503	0.8836	8.0525	12.4872
LEV	250	0.5015	0.2038	0.0056	0.881
FAGE	250	34.1	12.8385	2	58

Source: Generated by researcher using STATA

Table 2 provides the results of the descriptive statistics for the study variables which show that the average Return on Assets (ROA) of the sampled firms is 7.33%, with a standard deviation of 12.23%, indicating a moderate dispersion in the profitability of assets among the firms. The minimum ROA is -30.10%, suggesting that some firms incurred significant losses, while the maximum of 79.27% shows high profitability for others. Furthermore, Table 2 indicates that the Dividend Payout Ratio (DPR) has an average value of 37.37%, with a standard deviation of 65.25%, revealing a wide range of dividend policies across firms. The negative minimum value of -155.37% implies that some firms paid dividends despite reporting losses, possibly drawing from reserves, while the maximum DPR of 621.02% shows that certain firms paid out dividends far exceeding their earnings. The average Dividend per Share (DPS) is ₦0.55, with

values ranging from ₦0.0006 to ₦2.94, and a standard deviation of ₦0.71, indicating that dividend payments vary considerably among firms. Similarly, Table 2 shows that the average Firm Size (FSIZE), measured as the natural logarithm of total assets, is 10.55, with a low standard deviation of 0.88, and values ranging from 8.05 to 12.49, implying that most firms are relatively large and similar in size. The mean Leverage (LEV) is 50.15%, showing that, on average, firms finance about half of their assets through debt. The standard deviation of 20.38% and a range from 0.56% to 88.1% indicate a moderate to high level of variation in debt usage across firms. Finally, the average Firm Age (FAGE) is 34.1 years, suggesting that the sampled firms are generally mature, with a wide range from 2 to 58 years and a standard deviation of 12.84 years, reflecting a mix of both young and well-established companies.

Correlation Analysis

Table 3: Correlation Matrix of Study Variables

Variables	ROA	DPR	DPS	ISO	FSIZE	LEV	FAGE
ROA	1.0000						
DPR	0.1372	1.0000					
DPS	0.2753	0.2915	1.0000				
ISO	-0.1018	0.0264	0.1970	1.0000			
FSIZE	-0.0402	0.0413	0.1725	0.3310	1.0000		
LEV	0.1800	0.0871	0.1597	0.1341	0.1934	1.0000	
FAGE	-0.0755	0.1594	0.3016	0.1490	-0.0727	0.2464	1.0000

Source: Generated by Researcher using Stata ^{14.2}

The correlation analysis presented in Table 3 reveals the nature and strength of relationships among the study variables. The dependent variables ROA (Return on Assets). With respect to the relationships between the dependent and other variables, the return on asstes (ROA) shows a weak positive correlation with DPR (0.1372), DPS (0.2753) and LEV (0.1800), indicating that increases in dividend payout, dividend per share, earnings per share, and leverage are associated with modest improvements in asset returns. In contrast, ROA has weak negative correlations with ISO (-0.1018), FSIZE (-0.0402), and FAGE (-0.0755), implying that institutional ownership, firm size, and age may slightly reduce asset profitability. In addition, the correlation between EPS and DPS is moderate (0.3796), which reflects a tendency for firms with higher earnings per share to also pay higher dividends. On the overall, the other correlations among the independent variables are weak, suggesting minimal multicollinearity concerns.

Multicollinearity Test

Table 4: Results of Multicollinearity Test

Variables	VIF	1/VIF
DPS	1.44	0.696448
FAGE	1.21	0.827942
LEV	1.12	0.889310
DPR	1.11	0.902650
FSIZE	1.10	0.906645
Mean VIF	1.43	

Source: Generated by Researcher using Stata

The results in Table 4.3 show that the highest VIF value is 1.44 while the mean VIF is 1.4. Similarly, the tolerance values (1/VIF) are all less than 1. These indicate the absence of multicollinearity as there are no high correlations amongst the independent variables of the study. The rule of thumb states that a correlation coefficient of less than 10 would not pose multicollinearity problems in a model (Gujarati & Porter, 2009).

Hausman Specification Test

Table 5: Results of Hausman Specification Test

	Chi2	Prob. > Chi2
Direct relation	18.53	0.0050
Moderated effect	17.56	0.0029

Source: Generated by Researcher using Stata

The results as displayed in Table 5 indicate significant values for both models (p-values less than 0.05), implying that the fixed effect model is more appropriate for analysis in both models. The study therefore adopts the fixed model and the panel corrected standard error (PCSE) test was conducted to correct the Heteroskedasticity problems of the models.

Heteroskedasticity Test

Table 6: Results of Heteroskedasticity Test

Models	Chi value	Prob. Chi
Direct relationship	113.61	0.0000
Moderated effect	105.05	0.0000

Source: Generated by Researcher using Stata

The result in Table 6 indicates the presence of Heteroskedasticity problems in both models (direct relationship and moderated effect) since the p-values are less than the 5% threshold ($P < 0.05$). To solve this problem, the study conducted Panel Corrected Standard Error (PCSE) test suggested by Beck and Katz (1995) as the most appropriate way of correcting heteroskedasticity in panel data.

Regression Analysis

Table 7: Fixed Effect Regression Results (Direct Relationship)

ROA	Coef.	Std. Err.	Z	P> z
DPR	0.0181	0.0083	2.18	0.029
DPS	0.0317	0.0153	2.07	0.039
FSIZE	-0.0256	0.0090	-2.85	0.004
LEV	0.1188	0.0327	3.62	0.000
FAGE	-0.0020	0.0004	-4.11	0.000
CONS.	0.3073	0.0952	3.23	0.001
No. of Obs.			250	
No. of Groups			25	
Obs. Per group			10	
R Squared (R^2)			0.2564	
Wald Chi2			69.98	
Prob. > Chi2			0.0000	

Source: Generated by Researcher using Stata

Table 8: Fixed Effect Regression Results (Moderated Effect)

ROA	Coef.	Std. Err.	Z	P> z/
DPR	0.0330	0.0340	0.97	0.332
DPS	0.1141	0.0404	2.82	0.005
ISO	0.0168	0.0288	0.58	0.559
DPR*ISO	-0.0254	0.0497	-0.51	0.609
DPS*ISO	-0.1278	0.0521	-2.45	0.014
FSIZE	-0.0201	0.0090	-2.24	0.025
LEV	0.1164	0.0325	3.58	0.000
FAGE	-0.0020	0.0004	-4.31	0.000
CONS.	0.2364	0.0925	2.55	0.011
No. of Obs.			250	
No. of Groups			25	
Obs. Per group			10	
R Squared (R ²)			0.3412	
Wald Chi2			111.34	
Prob. > Chi2			0.0000	

Source: Generated by Researcher using Stata

Table 8 presents the results on the moderating effect of institutional ownership on the relationship between dividend policy metrics and financial performance of listed manufacturing firms in Nigeria. The Table displayed an R-squared (R²) value of 34% (0.3412), which gives the cumulative joint effect of the moderating and explanatory variables on the dependent variable.

This indicates that explanatory variables account for approximately 34% of the variation in the dependent variable, while undetermined variables, like the error term, account for approximately 66% of the difference in the manufacturing companies' firm return on equity (ROA) during the period. Table 8 revealed that Dividend Payout Ratio (DPR) exhibits a positive coefficient but a statistically insignificant p-value ($\beta = 0.0330$, $p = 0.332$). The positive coefficient indicates that an increase in the dividend payout ratio is associated with a slight improvement in firm performance; however, the p-value greater than 0.05 shows that the relationship is statistically insignificant. This implies that changes in DPR do not have a meaningful effect on the financial performance of listed manufacturing firms in Nigeria. Consequently, the null hypothesis (H₀₁) is not rejected. This result aligns with the findings of Chinnaiah (2020), Foong and Malek (2022), and Adeiza et al. (2020), who also reported positive but statistically insignificant relationships between dividend payout ratio and firm performance.

In contrast, the result from Table 4 indicates that Dividend Per Share (DPS) has a positive and statistically significant effect on firm performance ($\beta = 0.1141$, $p = 0.005$), indicating that higher dividend payments per share are associated with improved profitability measured by return on assets (ROA). Since the p-value is below the 0.05 significance level, the null hypothesis (H₀₂) is rejected, confirming that DPS significantly influences firm performance. This finding is consistent with previous studies by Emuze (2020), Foong and Malek (2022), and Ugwu, Onyeka, and Okwa (2020), who similarly reported a significant positive relationship between dividend per share and firm performance. Table 8 displays that Institutional Ownership (ISO) shows a positive but statistically insignificant relationship with firm performance ($\beta = 0.0168$, $p = 0.559$), indicating that although increased institutional shareholding is associated with a slight improvement in performance, the effect is not statistically significant because the p-value greater than 0.05. Therefore, the null hypothesis (H₀₃) is not rejected, suggesting that institutional ownership does not significantly influence the

financial performance of the sampled manufacturing firms. This finding is consistent with prior studies by Mahmoud et al. (2023), Bakhtiar et al. (2020), and Azizah (2020), which also reported insignificant or negative relationships between institutional ownership and firm performance.

The results in table 8 indicate that the moderating effect of institutional ownership on the relationship between dividend policy and firm performance presents mixed outcomes. The interaction between dividend payout ratio and institutional ownership (DPR * ISO) has a negative coefficient and a statistically insignificant p-value ($\beta = -0.0254$, $p = 0.609$), as p-value is greater than 0.05, it indicating that institutional ownership does not significantly moderate the relationship between payout ratio and firm performance. Therefore, the null hypothesis (H_{04}) is not rejected. Conversely, the results in table 8 reveal that the interaction between dividend per share and institutional ownership (DPS * ISO) shows a negative and statistically significant relationship ($\beta = -0.1278$, $p = 0.014$), since the p-value is less than 0.05, it therefore implies that institutional ownership significantly moderates the relationship between dividend per share and firm performance, although the moderating effect is negative. Consequently, H_{05} is rejected.

These results are consistent with studies such as Bakhtiar et al. (2020) and Azizah (2020), which reported negative or complex governance effects of institutional ownership. However, the findings contradict those of Hidayat and Purnamasari (2023) as well as Yuwono and Aurelia (2021), who documented positive moderating effects of institutional ownership on firm value.

For control variables, firm size (FSIZE) and firm age (FAGE) both have negative and significant effects on ROA (coefficients = -0.0201 , $p = 0.025$; and -0.0020 , $p < 0.001$, respectively), while leverage (LEV) shows a positive and significant effect (coefficient = 0.1164 , $p < 0.001$).

Conclusion and Recommendations

This study investigated how dividend policy and institutional ownership impact the financial performance of publicly listed manufacturing companies in Nigeria. Results show that the dividend payout ratio (DPR) has a positive but statistically insignificant effect on firm performance, indicating that changes in the proportion of earnings paid as dividends do not significantly affect profitability. Conversely, dividend per share (DPS) has a positive and statistically significant impact, suggesting that higher dividends per share are meaningfully associated with better profitability. Institutional ownership also shows a positive but statistically insignificant relationship with firm performance, implying that institutional shareholding alone does not strongly influence firm outcomes.

Regarding the moderating role of institutional ownership, the study finds that it does not significantly moderate the relationship between dividend payout ratio (DPR) and firm performance. However, institutional ownership significantly moderates the relationship between dividend per share (DPS) and firm performance with a negative interaction effect. This indicates that higher institutional ownership diminishes the positive impact of DPS on firm performance. Additionally, the control variables reveal that both firm size and firm age have negative and significant effects on profitability, whereas leverage positively and significantly influences firm performance. Overall, the findings suggest that dividend per share is a more effective determinant of firm performance than dividend payout ratio among listed manufacturing firms in Nigeria.

Based on these findings, manufacturing firms should prioritize maintaining a stable and sustainable dividend per share (DPS) policy to boost profitability and build investor confidence. Managers are advised to place less emphasis on adjusting dividend payout ratios (DPR) and instead focus on enhancing operational efficiency and increasing earnings capacity. Institutional investors are encouraged to take a more active governance role to ensure their

ownership positively impacts corporate performance. Additionally, firms should manage organizational growth carefully to reduce bureaucratic inefficiencies commonly associated with larger and older companies, while continuing to use debt financing prudently to support improved financial outcomes.

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