
Institutional ownership and firm value of listed manufacturing companies in Nigeria: the moderating role of dividend payout

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ABSTRACT

This study examined the effect of institutional ownership on firm value of listed manufacturing companies in Nigeria with dividend payout as a moderating variable. This study employed a sample of selected thirty-five (35) manufacturing companies listed on the Nigeria Exchange Group over a period of 12 years from 2010 – 2021. This study employs secondary data which were sourced from the annual financial reports of the selected companies. Descriptive statistics was used for data analysis. The result of the study shows that institutional ownership exhibited a positive relationship on firm value but not significant at 5% level. This implies that institutional ownership had insignificant effect on firms' value. On the moderating effect, it was confirmed that both dividend payout and institutional ownership jointly influenced firms' value. This implies that a non-regular payment of dividend to existing shareholders will affect the contribution of institutional shareholders to the totality of firms' value from institution ownership by 31.2%. This study concludes that the degree of institutional ownership involvement in listed manufacturing companies in Nigeria depends on the level of dividend payout to shareholders. Therefore, this study recommends that management of listed manufacturing companies in Nigeria should ensure payment of dividend to the shareholders of their companies from the company's annual net income in other to attract institutional shareholders and other potential investors.

Keywords: Dividend Payout, Firm Value, Institutional Ownership, Manufacturing Companies.

1. INTRODUCTION

Firm value is a perception of the stock market participants on how successfully a company's share price has performed in the stock market over the years. As such, stock market price which reflect a firms worth is one of the factors used by the various market participant in evaluating the firm's value (Falade et al., 2021; Wahyudi & Pawestri, 2006). Given this, it can be said that existing and prospective investors will be interested in a situation where the share price of a company is reflecting an increase in value since it will result in higher shareholder earnings. However, one of the primary goals of a company's investment management strategy is the maximisation of shareholder wealth and minimization of all operating cost. The key to maximising shareholders' wealth is to maximise returns for investors from numerous investment opportunities over a predetermined period of time. If a company's management decision is to raise the long-term market price of its shares, such decision will be accepted; if not, it will be rejected (Ajadi, et al., 2018).

The concern of potential or existing investors connotes that they critically appraise the financial stand of a firm before investing in such firm due to the uncertainty and fluctuation in the value of firms listed on the Nigeria Exchange. It is a noted fact that investors are rational beings with the sole aim of maximising their wealth and minimising firm costs (Dusan & Aljosa, 2001). Therefore, people saddled with the responsibility of managing an organization's affairs must ensure that their decision is capable of adding value to the worth of the company they are managing. According to Husam-Aldin et al. (2010), when decisions are made that are not in the best interests of shareholders and the company as a whole, this may have an effect on the company's value as well as the dividend payments that individual shareholders, such as institutional shareholders, will get.

Institutional ownership is the percentage of a company's available shares owned by mutual or pension funds, insurance companies, investment firms, private foundations, endowments, or other big entities that manage funds on behalf of others. Institutional ownership promotes firm's value through the provision of professional insight into an investment decision and monitoring management's decision (Falade, et al., 2021). The timely disclosure of financial reports by listed companies, such as the manufacturing enterprises, in accordance to the law, is one significant factor affecting the movement of share price on the Nigeria Exchange Group (Ibenta, 2005). This will enable investors have access to the anticipated risk and returns of every publicly listed company in which they have a stake due to the financial report presented.

Manufacturing firms are essential economic subset of the industrial sector that can

promote growth in the real sector, as well as other sectors of the Nigeria economy. Even though the Nigerian manufacturing companies are trying to lift millions of people out of poverty by creating wealth and employment opportunities, the manufacturing sector in Nigeria is barely struggling to survive (Adekoya, 2021). According to its quarterly research, the Manufacturers Chief Executive Officers (CEOs) Confidence Index (MCCI) shows that the confidence fluctuated under the 50 neutral points: 44.4 points in the first quarter, 40.2 points in the second quarter, and 43.3 points in the third quarter, and then 42.06 points in the fourth quarter of 2020. This trend is noted as a strong indicator of manufacturers' lack of confidence in the Nigeria economy in 2020 (Adekoya, 2021).

Previous studies have shown that one of the advantages of institutional shareholders is that they have a pool of liquid funds which can be invested in the manufacturing firms which can influence the worth of the company's value (Falade et al., 2021). Annual dividend payout can be considered and utilised as an inducing mechanism to attract institutional shareholders to invest their liquid assets in a firm by purchasing the firms' shares in the stock market. In order to further the influence of the interaction between institutional shareholders and firm value of listed manufacturing companies in Nigeria, this study includes dividend payment as a moderating variable.

Previous studies carried out in Jordan, Turkey, Kenya and Iran respectively by AL-Najja (2015), Dogan (2020), Mukaria et al. (2020) and Shohreh et al. (2015) examined the relationship between institutional ownership and firm, while Oyedokun et al. (2020) focused on consumer goods companies rather than all of the manufacturing companies listed on Nigeria Exchange Group. It was observed that none of the previous studies considered the use of dividend payout as a moderating variable to test the relationship between institutional ownership and firm value. Based on the foregoing, the main objective of this study is to examine the relationship between institutional ownership and firm value of listed manufacturing companies in Nigeria using dividend payout as the moderating variable. In a bid to achieve the objective of this study, the following hypotheses were formulated in the null form;

H₀₁: Institutional ownership has no significant effect on the firm value of listed manufacturing companies in Nigeria.

H₀₂: Dividend payout does not moderate the effect of institutional ownership on firm value of listed manufacturing companies in Nigeria.

This study is conducted in light of existing research on the relationship between institutional ownership and firm value by prior studies in different economic sectors

and countries. The remaining sections of this study are: literature review, methodology, presentation and analysis of data and, summary and recommendations.

2. LITERATURE REVIEW

The conceptual framework of this study in Figure 1, shows the interaction of dividend payout on the relationship between institutional ownership and firms' value of listed manufacturing companies in Nigeria. This shows that dividend payout may play a significant role in attracting institutional investors to manufacturing companies which can influence firm value. The conceptual framework of this study is presented in Figure 1 as follows:

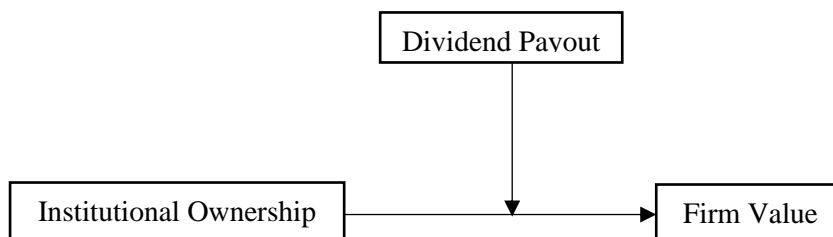


Figure 1: *Conceptual Framework*

Source: Researcher's Compilation, 2022

Firm Value

Firm value is determined by investor perceptions of the company, which are frequently linked to the equity market. The market value of a firm is determined by adding the market values of all outstanding debt, common shares, and preferred shares (Rajesh, 2016). The entire value of an enterprise is referred to as firm value in this study which is also referred to as enterprise value, because it provides a more thorough assessment of a company's overall value or net worth than the equity value. Firm value is also calculated as the market value of a firm over the total asset of the company. A company's shares publicly traded on the stock market are used as a measure of firm value for companies that issue shares in the stock market; indicating that a high share price is an indication of a high firm value (Cristiawan, 2007).

Some researchers have employed Tobin's Q to calculate a company's value. The ratio of a physical asset's market value to its replacement value (reproduction cost) is known as Tobin's Q (Kaldor, 1966). Rajini and Kawalpreet (2013) opined that the market value of a company's common stock, which in turn reflects the firm's investment, financial, and dividend decisions, determines the value of the company.

Firm value, according to Wahyudi et al. (2006) is the precise amount that bidders are prepared and willing to pay if and when a company is put up for sale or revalued. Firm value maximisation is a decision-making process that benefits all stakeholders. The maximisation of stockholders' wealth, which corresponds to the maximisation of the share price on the stock market, can simply be used to judge enterprise value. If the share price of a company is appealing and competitive, the value of the company will rise.

Institutional Ownership

Institutions like insurance firms, pension and mutual funds, investment houses are significant stock market participants because of their large pool of money through their operations, with a sizeable portion of their funds that can be invested in the securities of listed publicly traded firms on the floor of the stock market Organisation for Economic Cooperation and Development [OECD], (2021). Institutional investors must be considered important stock market players by manufacturing companies. According to Tahir et al. (2015), institutional investors normally use the exit strategy by selling their shares when they are not satisfied with managerial decisions and policies. When their equity ownership grows, they gain more clout to speak up when they disagree with management decisions.

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.

Dividend Payout

A company's dividend payout in this study, is the portion of the company's net profit that is distributed to the company's shareholders for their investment risk at the end of the company's accounting year. According to Nguyen et al. (2021), a firm's dividend payment policy is the way the firm decides to distribute part or in full its net income as dividend to the firm's shareholders. According to Rahman (2018) dividend payout is cash disbursement provided to investors as a reward for their investment in a company stock. According to Proshare (2016) investors in Nigeria

are extremely cautious and place a high value on companies that pay's dividend. However, the desire for requesting for the payment of dividend by company shareholders has grown because of economic downturn that hit the Nigerian stock market in year 2015 through 2016, resulting in high level of inflationary in the economy that created high investment risk and depreciate the value of future revenue. According to Lintner (1956) investors always choose the current dividend over capital gains (futurist income) as current dividends are far less risky compare to capital gains because they relate to the present rather than the future. Investors will be willing to pay more for companies stock that consistently payout dividend to shareholders, thus increasing the firm's value (Gordon, 1959; Walter, 1963).

Empirical Studies

Institutional Ownership and Firm Value

Several studies in literature explore the relationship between institutional ownership and firm value in extant literature. A study conducted by Oyedokun et al. (2020) examined the effect of ownership structure on firm value of listed consumers' goods manufacturing companies in Nigeria from 2010 to 2018. There were 21 consumer goods companies that were listed on the Nigerian Exchange Group as of December 31st, 2018 while nineteen (19) were selected using judgmental sampling approach for the study. Data were gathered from secondary sources using the annual reports and financial statements of the selected Nigerian consumer goods companies. The analytical method used in the study was panel regression. The findings from the study showed that institutional ownership have a positive effect on the firm value of consumer goods companies in Nigeria after using panel regression model.

Dogan (2020) examined the relationship between institutional ownership and firm value using data from one hundred and four (104) companies listed in the BIST (i.e., Borsa Istanbul) industrial index between 2006 and 2018. The study used the Durbin-Wu-Hausman test together with ordinary least squares (OLS). The study found a positive relationship between institutional ownership as an endogenous variable and firm value. Additionally, it was discovered that institutional investors are more drawn to companies with strong market performance. Mukaria et al. (2020) examined the relationship between ownership structure and firm value of sixty-four (64) Nairobi Securities Exchange listed companies. Pooled ordinary least squares, fixed effect, and random effect models were used in panel data analysis and found that institutional ownership have a statistically significant positive effect on firm value.

A study was conducted in Jordan using listed firms on institutional ownership and

firm performance indicator by AL-Najja (2015) no eighty-two (82) Jordanian non-financial listed firms from 2005 to 2013 periods. The fixed effect regression model shows that there is a significant relationship between institutional ownership and firm performance of listed Jordanian entities. Shohreh et al. (2015) used ninety (90) listed companies on the Tehran Stock Exchange from 2006 to 2010 for a study investigating the relationship between institutional ownership with financial policies and performance of listed companies Tehran Stock Exchange. The Pearson correlation and multiple regression analysis result shows that there is a positive and significant correlation between dividend policy and institutional ownership. The study results further showed a positive and significant relationship between institutional shareholders and performance using Tobin's Q.

Dividend Payout and Firm Value

Several studies in literature explore the relationship between dividend payout and firm value in extant literature. In order to verify the Miller and Modigliani Irrelevant Hypothesis in Nigeria, Lucky and Uzokwe (2019) conducted an investigation on dividend policy and firms' value using twenty (20) selected quoted companies from the Nigerian Exchange Group between 2008 and 2017. In contrast to Miller and Modigliani's irrelevance theory, the study finds that dividend policy have significant and positive relationship on firm value after using the fixed effect random and pool regression model. Also in Nigeria, Ejem and Ogbonna (2019) investigated the modelling of dividend policy and firm value linkages from 2012 to 2017 annual reports and financial statements of twenty-four (24) listed firms from ten different economic sectors in Nigeria. The three common models for panel data analysis were fitted by the researchers and found that while earnings have a positive and significant impact on firm value while each share of dividend has an insignificant impact on firm value. A similar study by Chinnaiah (2020) on impact of dividend payout on firm value using thirty-nine (39) samples of Nifty-100 index firms listed on the National Stock Exchange from 2009 to 2019. The study found that dividend payout positively relates but not significantly influence firms' value.

Triani and Tarmidi (2019) carried out a study on firm value: the impact of investment decisions, funding decisions, and dividend policies from 2013 to 2016 on the Indonesia Stock Exchange, especially on the property and real estate sector. Thirty-three listed companies were sampled. The result showed that firms' values were influenced by funding decisions and dividend payouts of the selected sample firms. Investment decisions are not significant. This research suggests that increasing firm value can be accomplished by applying dividend payouts. Also, Lumapow and Tumiwa (2017) examined the determinants of dividend payout, firm size, and

productivity on firm value of listed manufacturing companies on the Indonesia Stock Exchange (IDX) between 2008 and 2014. Panel data regression with Random Effect Model (REM) were used to analysis data used in the study. The results shows that firm value is negatively but significantly influenced by dividend policy.

Theoretical Review

For the purpose of this study, the study is anchored on signalling theory as propounded by Spencer (2000). The reduction of information asymmetry between two parties is the aim of signaling theory Spencer (2000). Information influences individual investors who make investment decisions as well as ownership structure of a company. Investors base their decisions on both public and private information, the latter of which is only accessible to a select individual rather than the general public. The theoretical underpinning of this study is the signaling theory because listed manufacturing companies in Nigeria can sustain and further attract institutional ownership through announcement of dividend payments to current shareholders and potential investors in order to gain confidence of institutional ownership and other potential investors which can have a positive and significant influence on firm value. Also, Jensen and Meckling (1976) explored the agency theory in the light of conflict of interest between shareholders and managers. The theory is based on the premise that if dividend is distributed regularly by management and other board members to existing shareholders rather than using it for personal gain, it may increase the level of institutional ownership owning shares in listed manufacturing companies in Nigeria, and this could be an influence on firms' value.

3. METHODOLOGY

The study's sample size, sources of data collection, data processing procedures, variables and their measurement, the study model, and statistical methods were all covered in this section. Forty-six (46) manufacturing firms (agricultural companies, consumer goods companies, healthcare companies and industrial goods companies) that were listed on the Nigerian Exchange Group (NGX) between 2010 and 2021 made up the study's population. Therefore, this study covered a period of twelve (12) years. This study utilised a sample of thirty-five (35) manufacturing companies listed on the Nigeria Exchange Group as at December 31st 2021. Judgmental Sampling Technique is utilised by this study, while filtering criteria was used to select the sampled companies, hence any listed manufacturing company with the issue of adherence to compliance status indicator will be excluded from the study population, this can be verify via <https://ngxgroup.com/exchange/trade/equities/listed-companies/>. The population and sample size of this study is shown in Table 1 as

Appendix A. The criteria used in selecting the thirty-five listed firms are shown in Table 2.

Table 2
Selection Criteria Table

Inclusion criteria	No of firms
Companies must be listed on Nigeria Exchange from 2010 to 2021	46
Companies with compliance status indicators issues within the period of study	11
Companies without issues of compliance status indicators	35

Source: Researcher’s compilation (2022)

The data for this study are secondary data sourced from annual financial reports of the selected thirty-five (35) listed manufacturing companies from 2010-2021. Ex-post facto research design was employed in this study to conduct a quasi-experimental analysis of the effects of the independent variables which include institutional ownership and dividend payout, on the dependent variable (firm value). The rationale for adopting the research design is to enable validation of the established selected independent variables on the dependent variable.

Model Specification

The Mukaria et al. (2020) model served as the adapted model for this study.

$$FV_{it} = f (MO_{it}, IO_{it}, FO_{it}) \dots\dots\dots(i)$$

Where; FV_{it} = Firm value MO_{it} , = Managerial ownership, IO_{it} , = Institutional ownership and FO_{it} = Foreign ownership.

The modified version of the model for the stated objectives is;

$$FIRMV_{it} = f (INSTUO_{it}, INSTUO_{it}*DIDP_{it},) \dots\dots\dots(ii)$$

From the modified equation ii above, equation for objective one was specified below:

$$FIRMV_{it} = \beta_0 + \beta_1INSTUO_{it} + DIDP_{2it} + \beta_3INSTUO_{it}*DIDP_{it} + e_{it} \dots\dots\dots (iii)$$

Where; $FIRMV_{it}$ = Firm Value, $INSTUO*DIDP_{it}$ = Moderating variable for Institutional ownership and Dividend payout, $INSTUO_{it}$ = Institutional Ownership, $DIDP_{it}$ = Dividend Payout, i = number of firms’ observation, t = the index of time period, e = error term, β_0 = constant, β_1 to β_3 = regression coefficients

Table 3

Definition and Measurement of Variables

Variables	Proxy	Measurement	Sources
Interaction variable (<i>INSTUO* DIDP</i>)	<i>INSTUO* DIDP</i>	Measured as multiplying estimated value of Institution ownership and Dividend payout	Researcher compilation
Dependent Variable Firm value	FIRMV	Is determined by the market capitalization to book value of total assets ratio.	Ramirez and Ferrer, (2021); Chinnaiyah, (2020); Ayunku and Timipere, (2019);
Independent Variable Institution ownership	INSTUO	measured as the proportion of equity that institutional investors own (i.e., the cumulative percentage of shares that institutions own with a stake greater than 5%). to the total number of issued shares	Mukaria et al. (2020); Ahmad and Jusoh (2014); Al- Shubiri et al. (2012).
Moderating Variable Dividend payout	DIDP	Measured as the yearly dividend per share divided by the earnings per share (EPS)	Ajadi et al. (2018); Akinleye and Ademiloye (2018); Anton (2016).

Source: Researcher’s Compilation (2022)

4. RESULT AND DISCUSSION

This section presents the results of the data analysis and test of hypotheses formulated. It begins with the presentation and analysis of descriptive statistics, correlation matrix and results of the regressions.

Table 4

Descriptive Statistics of the Variables

Variable	Obs.	Means	Std. Dev.	Min	Max
FIRMV	420	3.2857	3.9791	0.0	25.65
INSTUO	416	1.7716	1.3347	0.0	7.00
INSTUO* DIDP	411	9.0262	17.0355	0.0	196

Note: All the co-efficient value approximate to 4 decimal place

Source: Researcher’s Computation from Stata-12 (2022)

Table 4 presents the descriptive data for the selected manufacturing firms in Nigeria from 2010 to 2021. For the observation, it was confirmed that firms’ value (FIRMV), institutional ownership (INSTUO) and a moderating variable of institutional ownership and dividend payout (INSTUO* DIDP) had a sampled value of 420, 416

and 411 observation number respectively.

Hence, indicate the number of occurrences of the identified variables. The implication is that the selected panel data is unbalanced. For mean value, the moderating variable for institutional ownership and dividend payout (INSTUO*DIDP) had the greatest mean value of 9.0-units, while institutional ownership (INSTUO) had the lowest value of 1.8-units. Thus, it suggests that institutional ownership's full participation in manufacturing companies, couple with the consistent payment of dividend, both help to increase the value of the firms in the manufacturing companies.

Table 5
Hausman Test

Test Summary	chi2(2)	Prob.
Model-I	10.12	0.0703
Model-II	14.01	0.0631

Sources: Researcher's computation from Stata-12 (2022)

The results of the Hausman's test, which was applied to choose the best estimator for the variables among fixed and random effect estimates, are shown in Table 5. The assumptions are as follows:

H₀: Random effects is the suitable model for adoption in this study. $Cov(, xit) = 0$

H₁: The suitable model for adoption is fixed effect. $Cov(, xit) \neq 0$

The probability value of Hausman's test for the two tested models were greater than 0.05 ($p > 0.05$) levels of significance, indicating that the alternative hypothesis was rejected in favor of the null hypothesis, as shown in Table 4. Thus, inferring that the derived random effects model estimate was statistically sufficient in explaining the variance in independent variables while the dependent variable remained steady. As a result, a random effects estimate was preferable for the investigation in the two models. Given this, Gujarati et al. (2016) disclose that Hausman test is the most appropriate technique to judge the suitable statistical technique to determine variation that occurs among the used variables. When the estimated p-value of Hausman's test is less than 5% significant level, Fixed effect technique is considered suitable and when greater than 5% significant level, Random effect is considered suitable (Maddala & Shaowen, 2002; Gujarati et al., 2016).

Table 6
Correlation Matrix

Variable	FIRMV	INSTUO	INSTUODIDP
FIRMV	1.0000		
INSTUO	0.0297	1.0000	
INSTUO*DIDP	0.0375	0.7365	1.0000

Sources: Researcher's computation from Stata-12 (2022)

In Table 6, it was revealed that firms' value (FIRMV), institutional ownership (INSTUO) and a moderating variable for institutional ownership and dividend payout (INSTUO*DIDP) was conformed to the Pearson's correlation assumption that claims perfect correlation when a variable is examined against itself. Hence, indicates that each of the variable contribution to the overall performance of the selected companies is directly proportional to factors employed. For institutional ownership (INSTUO), it showed a considerable moderate impact on the firms' value (FIRMV) with a value of 2.9%. Implying that within the study year there was infinitesimal contribution from institutional ownership to manufacturing firms on exchange market. Also, a moderating variable for institutional ownership and dividend payout (INSTUO*DIDP) was considered moderate to its value of 3.7%. Hence, shows improvement in firms' worth then dividend is assured for institutional ownership.

Regression Analysis and result

Table 7
Panel Pool Result

Variable	Coefficient	Std. Dev.	Pool OLS			
			t-Value	Prob.	95% Conf.	Interval
INSTUO	0.4886	0.34691	1.33	0.111	-0.2001	0.3774
Constant	3.1508	0.32573	9.67	0.000**	2.5106	3.7911
<u>Random-Effects GLS Regression</u>						
INSTUO	0.1488	0.1342	1.11	0.106	-0.27304	0.37072
Constant	3.2208	0.40592	7.93	0.000**	2.4252	4.0164
Overall R-squared:	0.5109					
Adj R-squared:	0.4815					
Prob > F :	0.0464					
Number of groups :	35					

Sources: Researcher's computation from Stata-12 (2022)

As shown in Table 7, the results for panel pool data and Random-Effects GLS regression. However, in line with the obtained result from the Hausman's test, which was greater than 0.05 ($p > 0.05$) levels of significance, the study used Random-Effects

GLS result to discuss the current study. It was confirmed that institutional ownership (INSTUO) exhibited a positive sign and non-significant at 1%, 5% and 10% conventional level. However, the positivity sign obtained for institutional ownership confirmed that it is an active variable that will stimulate the desired change in the manufacturing sector when institutional investors are fully attracted by dividend payout from firms' management. Presently, the finding established that the level of institutional ownership's share possession in manufacturing sector in Nigeria is still low. For the positive and non-significant result obtained for institutional ownership, it's in line with the findings of AL-Najja (2015) that confirmed that institutional ownership showed a non-significant relationship with a firms' value. The reason for the non-significant of institutional ownership was attributed to low shares possession in manufacturing firms by institutional investors.

H₀₁: Institutional ownership does not have significant effect firm value of listed manufacturing companies in Nigeria.

Table 8
Model Two Moderating Effect Analysis

<u>Pool OLS</u>						
Variable	Coefficient	Std. Dev.	t-Value	Prob.	95% Conf.	Interval
INSTUO* <i>DIDP</i>	-0.4089	0.1115	3.66	0.0001	-0.0138	0.03174
Constant	3.2176	0.2233	14.41	0.000**	2.7786	3.6566
<u>Random-Effects GLS Regression</u>						
INSTUO* <i>DIDP</i>	-0.3123	0.1122	-2.78	0.006**	-0.0117	0.03633
Constant	3.1898	0.3028	10.53	0.000**	2.5963	3.7834
Overall R-squared:	0.5105					
Adj R-squared :	0.4210					
Prob > F :	0.0407					
Number of groups :	35					

Sources: Researcher's compilation from Stata-12 (2022)

Testing of Hypotheses

H₀₂: Dividend payout does not have significant moderating effect on the relationship between institutional ownership and firm value of listed manufacturing companies in Nigeria.

The Random-effects GLS regression result in table 7 demonstrated that a moderating variable for institutional ownership and dividend payout (INSTUO**DIDP*) had a negative sign and was significantly related to firms' value (FIRMV) at 5% conventional level. The implication is that when dividend payment is not regularly paid to current shareholders in manufacturing firm in Nigeria, it reduces contribution

that would have come from institutional ownership to firms' value by 31.2%; when other factors affecting firms' value were assumed constant. Studies on dividend payout by Triani & Tarmidi (2019), Oyedokun et al., (2020) and Shohreh et al. (2015) had separately confirmed that both dividend payout and ownership structure support firms' value.

Table 9
Diagnostic Tests

Test Specification	Chi2	P-value
Normality Test (Shapiro-Wilk W test for normal data)	0.10	0.9318
Model Specification Test (Ramsey RESET test)	0.32	0.8135
(Breusch-Pagan/Cook-Weisberg test for heteroskedasticity)	2.42	0.1198
Serial Autocorrelation Test (Breusch-Godfrey test LM)	1.23	0.7601
Prob > F	1.29	0.0464

Sources: Researcher's compilation from Stata-12 (2022)

It was confirmed through the result obtained in panel data that normality test as ascertained by Shapiro-Wilk (0.10) had a p -value greater than 0.05. The result suggested that the population residual was evenly distributed, satisfying the requirement for a reasonable regression line. Also, studies like Kao (1999) and Gujarati et al. (2016) arrived at a similar findings with a conclusion that when Shapiro-Wilk p -value is greater than 5% significant level, it suggests normality distribution for the used variables. The Ramsey RESET test assumes there was no evidence of additional or omitted variables in the estimated model for model specification. Hence, the p -value of 5% or lesser shows that the selected variables independent variables in the model are statistically sufficient to explain variation that occurred among the variables (Badmus & Ogundele, 2019; Anthony et al., 2022).

Also, the heteroskedasticity test of Breusch-Pagan confirmed that the p -value of the estimated co-efficient value was greater than 0.05, which led to the adoption of the null hypothesis that stated 'there is no heteroscedasticity among the variables identified in the model'. The serial correlation indicates that the null hypothesis of no serial correlation was accepted, due to p -value greater than 5% significance level. Thus, this necessitates the acceptance of null hypothesis, and therefore concludes that the model has no serial or auto correlation. The model f -statistics were 1.29 with a p -value of 0.0464, indicating that it was significant at the usual level of significance. This means that the model is well-fitting, and so reasonable and legitimate inferences may be formed from it.

5. CONCLUSION AND RECOMMENDATIONS

Conclusion

This study utilised thirty-five selected listed manufacturing firms in Nigeria from 2010 to 2021 to examine the moderating role of dividend payout on the relationship between institutional ownership and firm value of listed manufacturing companies in Nigeria. It was discovered that dividend payout plays a moderating role between institutional ownership and firms' value, such that, a non-regular payment of dividend to prospective shareholders reduced their contribution to the totality of firms' value from institution ownership by 31.2%. Additionally, institutional ownership had a favourable but non-significant influence. Hence, this shows that only assurance of dividend payment induces institutional ownership full participation in manufacturing firms. It was concluded that payment of dividend encourages institutional investors to own shares in manufacturing firms; while a non-regular payment discourages their participation.

Recommendations

This study recommends that considering the fluctuation in dividend payment by management of listed manufacturing firms in Nigeria, management of manufacturing firms should endeavour to consistently payout dividend to existing shareholders from their annual net profit as a means to attract and gain the trust of institutional shareholders and other potential investors. When a manufacturing company pays dividend to its existing shareholders, the signalling effect will encourage other potential investors like the institutional investors to massively invest their liquid asset in such a manufacturing firm. However, the non-regular payment of dividend by a manufacturing firm will discourage potential investors such as the institutional investors from investing in such a manufacturing firm. Also, manufacturing firms in Nigeria should consider the need to increase their firm value by allowing institutional ownership as part of their ownership structure since they are active variable that can stimulate the desire change in the manufacturing company by ensuring regular payments of dividend to existing institutional shareholders. Also, management of the listed manufacturing companies in Nigeria should ensure that in an attempt to retain firms earning for any good reason what so ever, should not necessary mean no dividend payout that year, but rather ensure that every shareholders are paid their entitled portion of dividend from the company's net profit for the year.

The study has expanded the body of knowledge by providing empirical validation

that institutional ownership engagement in Nigeria's listed manufacturing company is determined by regular payment of dividend to shareholders. Hence, a regular payment of dividend induces institutional investors. Furthermore, the practical contribution of this study is that it will assist policymakers, regulators, corporate investors, and managers with improved understandings of how dividend payout enhances firm value of manufacturing companies with the help of institutional investors.

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APPENDIX

Table 1
Population and Sample Size for this Study

S/N	NAMES	SUBSECTOR	YEAR OF INCORPORATION	SELECTED/NIL FIRMS
1	MCNICHOLS PLC	CONSUMER GOODS	December 18, 2009	SELECTED
2	NIG. FLOUR MILLS PLC	CONSUMER GOODS	October 29, 1971	NIL
3	NASCON ALLIED INDUSTRIES PLC	CONSUMER GOODS	October 20, 1992	SELECTED
4	NESTLE NIGERIA PLC	CONSUMER GOODS	April 20, 1979	NIL
5	NIGERIAN BREW. PLC	CONSUMER GOODS	September 5, 1973	NIL
6	NIGERIAN ENAMELWARE PLC	CONSUMER GOODS	May 21, 1960	SELECTED
7	UNILEVER NIGERIA PLC	CONSUMER GOODS	November 4, 1923	SELECTED
8	P Z CUSSONS NIGERIA PLC.	CONSUMER GOODS	April 12, 1948	NIL
9	UNION DICON SALT PLC	CONSUMER GOODS	November 12, 1991	SELECTED
10	VITAFOAM PLC	CONSUMER GOODS	April 8, 1962	SELECTED
11	UAC PLC	CONSUMER GOODS	April 22, 1931	SELECTED
12	INTERNATIONAL BREWERIES PLC.	CONSUMER GOODS	December 22, 1971	SELECTED
13	HONEYWELL FLOUR MILL PLC	CONSUMER GOODS	October 20, 2009	SELECTED
14	GUINNESS NIG PLC	CONSUMER GOODS	January 2, 1965	SELECTED
15	GOLDEN GUINEA BREW. PLC	CONSUMER GOODS	September 26, 1962	SELECTED
16	FLOUR MILLS NIG. PLC	CONSUMER GOODS	September 29, 1960	NIL
17	DN TYRE & RUBBER PLC	CONSUMER GOODS	October 21, 1961	NIL
18	DANGOTE SUGAR REFINERY PLC	CONSUMER GOODS	March 8, 2007	SELECTED
19	CHAMPION BREW. PLC	CONSUMER GOODS	September 1, 1983	SELECTED
20	BUAFOODS	CONSUMER GOODS	January 5, 2022	NIL
21	CADBURY Plc	CONSUMER GOODS	January 9, 1965	SELECTED
22	AUSTINLAZ PLC	INDUSTRIAL GOODS	July 13, 1982	SELECTED
23	BERGER PAINT	INDUSTRIAL GOODS	September 1, 1959	SELECTED
24	BETA GLASS PLC	INDUSTRIAL GOODS	July 2, 1986	SELECTED
25	BUACEMENT	INDUSTRIAL GOODS	January 9, 2020	NIL

26	CAPLUX PAINT	INDUSTRIAL GOODS	May 24, 1978	SELECTED
27	CUTIX PLC	INDUSTRIAL GOODS	August 12, 1987	NIL
28	DANGOTE CEMENT PLC	INDUSTRIAL GOODS	October 26, 2010	SELECTED
29	GREIF NIGERIA PLC	INDUSTRIAL GOODS	January 20, 1940	NIL
30	LAFARGE AFRICA PLC	INDUSTRIAL GOODS	February 17, 1979	SELECTED
31	MEYER PLC	INDUSTRIAL GOODS	May 20, 1960	SELECTED
32	PREMIER PAINTS PLC	INDUSTRIAL GOODS	March 7, 1995	SELECTED
33	NOTORE CHEMICAL IND PLC	INDUSTRIAL GOODS	November 30, 2005	SELECTED
34	TRIPPLE GEE and Company PLC	INDUSTRIAL GOODS	April 14, 1980	SELECTED
35	EKOCORP PLC	HEALTHCARE	October 9, 1991	SELECTED
36	FIDSON HEALTHCARE PLC	HEALTHCARE	May 17, 2005	SELECTED
37	GLAXO SMITHKLINE NIG. PLC	HEALTHCARE	June 23, 1971	SELECTED
38	MAY & BAKER NIGERIA PLC	HEALTHCARE	November 10, 1994	SELECTED
39	MORISON INDUSTRIES PLC	HEALTHCARE	June 29, 1955	SELECTED
40	NEIMETH INTERNATIONAL PHARMACEUTICALS PLC	HEALTHCARE	September 21, 1979	SELECTED
41	PHARMA-DEKO PLC	HEALTHCARE	April 18, 1969	SELECTED
42	ELLAH LAKES PLC	AGRICULTURE	July 2, 1980	SELECTED
43	FTN COCOA PROCESSORS PLC	AGRICULTURE	August 26, 1991	SELECTED
44	OKOMU OIL PALM PLC	AGRICULTURE	September 9, 1997	SELECTED
45	PRESCO PLC	AGRICULTURE	October 10, 2002	NIL
46	LIVESTOCK FEED PLC	AGRICULTURE	March 20, 1963	SELECTED

Source: Nigeria Exchange Group (2022).