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SHAREHOLDER DIVERSITY AND STOCK MARKET RETURNS: A PANEL DATA ANALYSIS OF NIGERIAN MANUFACTURING FIRMS

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ABSTRACT

This study investigates the impact of shareholder diversity on stock market returns in Nigeria, with a focus on three ownership dimensions: individual, institutional, and foreign shareholding. The analysis covers manufacturing firms listed on the Nigerian Stock Exchange over the period 2014–2023, employing pooled Ordinary Least Squares (OLS) and panel effects estimation techniques. Shareholder diversity was measured through the proportion of shares held by individuals, institutions, and foreign investors, while stock market returns were proxied by changes in market capitalization. The findings reveal distinct effects across ownership categories. Individual ownership has a significant negative impact on market capitalization changes, suggesting that high levels of individual shareholding may weaken market performance, possibly due to lower liquidity or concentrated trading behavior. Institutional ownership, by contrast, exhibits no significant relationship with market returns, indicating that Nigerian manufacturing firms may not yet be fully benefitting from the governance and monitoring roles typically associated with institutional investors. Foreign ownership shows a positive, though statistically insignificant, effect on market capitalization, highlighting its potential but limited role during the study period. The study contributes to the literature by extending the analysis of shareholder diversity to the Nigerian context, an emerging market where ownership structures and corporate governance remain critical to market efficiency. It underscores the importance of fostering more diversified shareholder bases to enhance liquidity, investor confidence, and returns. The paper provides implications for investors, companies, and policymakers seeking to optimize ownership structures and improve stock market performance in Nigeria.

Keywords: Market capitalization, Individual ownership[, Institutional ownership, foreign ownership, Liquidity, Nigerian stock market

INTRODUCTION

The dynamics of financial markets are shaped by several interrelated factors, among which shareholder diversity and market liquidity play critical roles. Shareholder diversity refers to the variety of entities and individuals holding equity in a company, encompassing retail investors, institutional investors (such as mutual funds and pension funds), corporate insiders, and foreign stakeholders. This heterogeneity in ownership structure influences corporate governance practices, voting rights distribution, market participation, and the trading behaviour of stocks. A diversified shareholder base has been associated with enhanced market efficiency. When share ownership is widely dispersed across different investor categories, it fosters more active trading, reduces information asymmetry, and enhances price discovery.

Conversely, concentrated ownership structures—where few entities control significant equity stakes—may lead to reduced trading activity and market illiquidity. In this regard, one of the hallmarks of an efficient financial market is the presence of a large pool of active buyers and sellers, which in turn enables a more robust and fluid exchange of securities.

Liquidity, which reflects the ease with which assets can be bought or sold without significantly affecting their prices, is another essential characteristic of well-functioning markets. Key liquidity metrics include trading volume, bid-ask spread, and market depth. A narrow bid-ask spread, for example, often indicates strong market demand and active participation, whereas a widespread may suggest limited trading interest and elevated transaction costs. When markets are liquid, investors can enter and exit positions with minimal cost, thereby promoting greater participation and better price efficiency.

Stock market returns, typically measured by changes in stock prices or market capitalization, serve as a key indicator of investor gains or losses. Returns are influenced by a myriad of factors, including company fundamentals, macroeconomic conditions, and investor behaviour. Liquidity and shareholder structure are increasingly recognized as important determinants of these returns. For instance, stocks with higher liquidity often experience smoother price adjustments and attract more investors, potentially leading to higher returns. Similarly, a diverse shareholder base may provide better governance, information dissemination, and trading dynamics, which can positively influence stock performance.

Despite the growing body of literature linking shareholder structure, liquidity, and stock returns, the precise mechanisms through which these factors interact remain complex and underexplored—especially in emerging markets like Nigeria. Existing studies often focus on board diversity or institutional ownership in isolation, overlooking the broader implications of shareholder diversity in its various dimensions.

This study seeks to address this gap by investigating the impact of shareholder diversity on stock market returns, with a specific focus on manufacturing companies listed on the Nigerian Stock Exchange over the period 2019 to 2024. By examining shareholder diversity in terms of individual, institutional, and foreign ownership, this research aims to provide deeper insights into how each ownership class influences market outcomes. The objectives of the study are threefold:

1. To examine the relationship between the percentage of individual ownership and percentage change in market capitalization.
2. To ascertain the relationship between the percentage of institutional ownership and market capitalization growth; and
3. To investigate the relationship between foreign ownership and changes in market capitalization.

These objectives are framed as research questions and was tested using appropriate null hypotheses.

By focusing on shareholder diversity as a corporate governance mechanism beyond board composition, this study contributes to the broader literature on market efficiency, ownership structure, and return generation. The findings are expected to offer valuable implications for investors, regulators, and policymakers seeking to enhance stock market performance and stability in Nigeria.

Literature Review

Shareholder diversity has long been studied in relation to its impact on corporate governance and firm performance. La Porta et al. (1998) conducted a pioneering cross-country analysis examining the relationships among legal systems, investor protection, and corporate governance. Their study utilized data from legal databases, academic literature, and surveys across different jurisdictions to construct measures of legal origin, enforcement strength, and minority investor protection. Key findings suggested that countries with common law traditions exhibited stronger investor protections and more robust corporate governance mechanisms, including greater board independence and reduced ownership concentration. These institutional factors were found to be conducive to better firm performance and investor confidence.

La Porta et al. further emphasized the role of legal infrastructure in shaping corporate governance by advocating for reforms in countries with civil law traditions. Their recommendations included enhancing minority shareholder rights, increasing transparency through mandatory disclosures, and strengthening the independence and accountability of corporate boards. This framework provides a valuable foundation for understanding how institutional and legal contexts influence shareholder dynamics and market outcomes.

The nature and composition of ownership—particularly institutional versus individual ownership—has also been widely explored in the literature. Aggarwal et al. (2015) examined how the diversity of institutional investors affects firm performance. Using a sample of publicly traded firms and variables such as the proportion and dispersion of institutional ownership, they found that firms with more diverse institutional investor bases exhibited superior long-term performance. Performance metrics such as return on assets (ROA) and Tobin's Q showed positive relationships with shareholder diversity. The authors suggested that diversity among institutional investors enhances monitoring, reduces agency costs, and improves strategic decision-making. They recommended that firms seeking to improve performance should focus on attracting and retaining a broad base of institutional shareholders by promoting transparency and sound governance practices.

Gompers et al. (2003) similarly analyzed the relationship between ownership structure, governance mechanisms, and firm performance. Their research highlighted that firms with higher concentrations of institutional ownership were more likely to implement better corporate governance practices, including independent board structures, shareholder rights protections, and performance-based executive compensation. These governance improvements, in turn, were associated with enhanced firm valuation and profitability. Gompers et al. concluded that institutional investors play a pivotal role in shaping corporate governance frameworks and can be instrumental in improving market discipline and value creation.

Contrasting these findings, some concerns have been raised about institutional ownership. Morck et al. (2005) noted potential downsides such as reduced control by retail shareholders and possible misalignments between institutional objectives and long-term firm goals. Porter (1992) also criticized the short-termism that may be induced by some institutional investors, especially in volatile markets.

Individual ownership, often linked to psychological ownership, reflects the personal stake and emotional investment that individuals have in an organization (Pierce et al.,

2001). Studies show that individual ownership can boost organizational commitment, motivation, and performance (Eisenberger et al., 1986; Mayhew et al., 2007). However, its effect on market capitalization is nuanced. On one hand, engaged individual owners may promote growth and innovation, contributing to higher market capitalization. On the other hand, individual owners may prioritize personal or short-term goals over corporate objectives, potentially leading to inefficiencies or increased risk exposure due to lack of diversification (Morck et al., 2005; Shleifer & Vishny, 1986). The relationship between individual ownership and market performance is also influenced by contextual variables. For instance, Mayhew et al. (2007) found that employee empowerment strengthens the positive association between individual ownership and firm value.

Foreign ownership introduces additional dimensions of capital inflow, technology transfer, and market credibility. Dunning (1993) emphasized the role of foreign investors in enhancing firm competitiveness and efficiency. Coffee (1999) further argued that foreign ownership often signals credibility to domestic and international markets, potentially increasing firm valuation. However, risks remain. Stulz (2005) and Harrison & McMillan (2003) observed that foreign ownership can lead to control dilution for domestic investors and introduce conflicts of interest, especially when strategic priorities diverge. The effects of foreign ownership also vary depending on investor type and country of origin. Kang and Stulz (1997) found that institutional foreign investors generally exert more positive influence than individual foreign investors due to their professionalized governance expectations.

Overall, empirical findings on foreign ownership and market capitalization are mixed. While many studies report a positive impact due to capital injection and increased market confidence, others note negative implications related to governance conflict and wealth transfer.

Stock market returns represent the gains or losses realized by investors and are influenced by numerous firm-specific and macroeconomic factors. Fama and French (1992, 1993) developed the three-factor model, incorporating market risk, size (SMB: small minus big), and value (HML: high minus low) factors to better explain cross-sectional stock returns. Their empirical analysis, largely based on U.S. market data, demonstrated that small-cap and value stocks tend to outperform their large-cap and growth counterparts, suggesting that investors can enhance returns by accounting for these factors in portfolio construction.

While their model improved upon the Capital Asset Pricing Model (CAPM), subsequent studies, including this one, have extended the Fama-French model to international and emerging markets to test its robustness in different contexts. The implications for Nigerian manufacturing firms are significant, as market conditions, investor behaviour, and firm characteristics may yield different sensitivities to these risk factors.

Another influential model is the momentum strategy developed by Jegadeesh and Titman (1993). Their research found that stocks with strong past performance tend to continue performing well in the short term. This momentum effect contradicts the efficient market hypothesis and suggests that behavioural factors and delayed information diffusion play a role in asset pricing. Their findings encouraged momentum-based strategies that involve buying past winners and selling past losers, which have been shown to yield excess returns in both developed and emerging markets.

In contrast to these foundational studies which applied their models in mature markets, the present study investigates how these asset pricing insights apply to Nigeria's manufacturing sector, considering its unique liquidity, shareholder, and regulatory environment.

Taken together, these studies underscore the multifaceted nature of shareholder diversity and its implications for corporate governance and stock returns. While La Porta et al. (1998) highlighted legal and institutional foundations, Aggarwal et al. (2015) and Gompers et al. (2003) demonstrated the operational consequences of ownership structure. Meanwhile, Fama and French (1992, 1993) and Jegadeesh and Titman (1993) provided powerful models to understand return behavior under different risk and behavioral dynamics.

Despite these contributions, gaps remain in the application of these frameworks to emerging markets like Nigeria. Specifically, the interactions between shareholder diversity (individual, institutional, and foreign), liquidity characteristics, and stock market returns in Nigerian manufacturing firms are underexplored. This study aims to bridge that gap by providing empirical insights from 2019 to 2024.

Theoretical Framework

Resource Dependence Theory (RDT), developed by Jeffrey Pfeffer and Gerald Salancik in the 1970s, posits that organizations are not self-sufficient but rely on external entities for the acquisition of critical resources necessary for their survival and performance (Pfeffer & Salancik, 1978; Hillman et al., 2015). According to this theory, in order to secure such resources, firms must engage in interactions and transactions with other actors in their external environment. This interdependence shapes organizational behaviour and strategic decision-making.

As explained by Pfeffer (2013) and Pfeffer & Salancik (2014), top executives serve as intermediaries between the organization and its external environment. They play a pivotal role in identifying, negotiating, and securing the assets and resources that are most likely to ensure the firm's sustainability. In doing so, they bring elements of external uncertainty and opportunity into the organization, shaping internal structures and responses accordingly.

Within the framework of RDT, the board of directors is viewed as a vital mechanism through which a firm gains access to essential external resources. According to Rondoy et al. (2014), boards serve as conduits to critical resources such as capital, customers, suppliers, regulatory knowledge, and strategic alliances. The ability of the board to link the firm to these resources is crucial for organizational success, particularly in dynamic and competitive environments. A key insight of Resource Dependence Theory is that the composition of the board—especially in terms of diversity—affects the quality and breadth of the firm's external connections. Diverse boards bring with them a variety of experiences, knowledge bases, social networks, and perspectives, enhancing the firm's ability to understand and interact with multiple stakeholder groups. As noted by Thomsen & Conyon (2012), board diversity in nationality, education, experience, and professional background expands the board's cognitive and strategic capacity. Such diversity enables the board to better understand complex market dynamics, anticipate stakeholder needs, and seize emerging business opportunities. This is consistent with Hillman et al. (2000) who assert that diverse boards are better equipped to interpret business environments and craft more informed strategies.

Resource Dependence Theory (RDT) provides a valuable theoretical lens for understanding the impact of shareholder diversity on stock market returns, particularly in the context of manufacturing companies listed on the Nigerian Stock Exchange. At its core, RDT emphasizes that firms depend on external actors for access to critical resources—such as capital, information, legitimacy, and strategic alliances—and that organizations structure themselves to manage these dependencies effectively (Pfeffer & Salancik, 1978). In the context of this study, shareholders—whether individuals, institutions, or foreign investors—are not merely financial contributors, but also providers of strategic resources. A diverse shareholder base introduces a broader range of perspectives, expectations, and informational inputs, which can influence corporate behaviour, investor relations, and ultimately, market valuation. Individual shareholders, while often less powerful on their own, collectively reflect market sentiment and consumer behaviour. Their presence signals broad-based public interest and can enhance stock liquidity through frequent trading, thereby improving price discovery. Institutional investors bring not only capital but also expertise, credibility, and governance pressure. According to RDT, their involvement serves as a signal to the market of the firm's legitimacy and accountability, which can positively affect investor confidence and stock valuation. Foreign investors often provide access to global capital, international networks, and new market insights. Their presence is associated with enhanced disclosure standards and alignment with international best practices—resources that are critical for firms in emerging markets aiming to compete globally. Thus, shareholder diversity can be seen as a form of resource pluralism, which strengthens the firm's position within the broader financial ecosystem.

Drawing from RDT, firms with diverse shareholder bases are more likely to:

1. Access broader pools of capital, reducing dependency on any single funding source.
2. Improve corporate governance due to the monitoring role played by institutional and foreign investors.
3. Enhance liquidity, as a wider and more heterogeneous investor base leads to higher trading volume and narrower bid-ask spreads.
4. Increase legitimacy, as foreign and institutional ownership signals compliance with higher governance and transparency standards.

These mechanisms contribute to improved investor confidence, more accurate stock pricing, and potentially higher stock market returns. For instance, in the Nigerian manufacturing sector—often characterized by ownership concentration and weak governance frameworks—the introduction of institutional and foreign investors can help bridge gaps in transparency, strategic direction, and financial discipline. Their involvement pressures firms to adopt global best practices, improve board performance, and deliver sustainable value—all of which are positively reflected in market performance indicators such as market capitalization and returns.

Resource Dependence Theory also emphasizes the role of boards as mediators between the firm and its external environment. In this regard, diverse shareholders may influence board composition, encouraging the inclusion of members who reflect or represent their interests (e.g., gender, nationality, experience). A more representative board is better positioned to understand the expectations of a varied shareholder base and to leverage their collective insights for strategic decision-

making. By increasing access to financial, informational, and relational resources through shareholder diversity, firms enhance their adaptability and responsiveness—two critical determinants of superior stock market returns in volatile and emerging markets like Nigeria. The Resource Dependence Theory supports the argument that shareholder diversity functions as a strategic resource base, enabling firms to reduce dependency, gain legitimacy, and improve governance. These benefits, in turn, enhance market confidence and improve stock market returns. By applying RDT, this study positions shareholder diversity not merely as a governance or ownership issue, but as a critical determinant of financial performance and market efficiency.

METHODOLOGY

This study adopts an ex post facto research design. According to Asika (2006), ex post facto research involves the systematic empirical investigation of variables without any manipulation by the researcher, as the events under study have already occurred. This design is appropriate given the retrospective nature of the study, which relies on historical data covering the period from 2014 to 2023. The approach allows for a time series analysis, consistent with similar studies that utilize annual or quarterly observations to examine trends and relationships over time. The population of this study comprises all manufacturing companies listed on the Nigerian Stock Exchange (NSE) between 2014 and 2023. The study adopts a purposive sampling technique to select five (5) manufacturing firms based on data availability and consistent listing throughout the study period.

The study relies on secondary data, which were obtained from the published annual reports of the selected companies and from the official websites of the Nigerian Stock Exchange (NSE) and company-specific websites. The data spans from 2014 to 2023, covering key ownership and market performance variables. The analysis involves both descriptive and inferential statistical methods:

- Descriptive statistics (mean, standard deviation) are used to summarize the distribution and characteristics of the variables.
- Correlation analysis is employed to examine the strength and direction of relationships between the independent variables (ownership types) and the dependent variable (market capitalization).
- Ordinary Least Squares (OLS) regression is applied to test the hypothesized relationships and estimate the impact of shareholder diversity on market capitalization.

The OLS technique is preferred due to its properties of Best Linear Unbiased Estimation (BLUE). It is computationally straightforward, provides efficient estimates, and requires relatively minimal data assumptions compared to other econometric techniques. The study specifies the following functional and econometric models to capture the relationship between shareholder diversity and stock market returns:

Functional Form:

$MC = f(IDO, INO, FRO)$

Econometric Model:

$MC_{it}=C_0+C_1(IDO_{it})+C2(INO_{it})+C3(FRO_{it})+\varepsilon_{it}$

Where:

MC_{it} = Percentage change in Market Capitalization of firm *i* in year *t*

IDO_{it} = Percentage of Individual Ownership

INO_{it} = Percentage of Institutional Ownership
FROit = Percentage of Foreign Ownership
C_0 = Intercept
C_1, C_2, C_3 = Coefficients of the independent variables
ε_{it} = Error term

Descriptive Statistics

The descriptive statistics summarize the characteristics of the study variables' over 50 observations.

Table 1 Descriptive Statistics

	MC	IDO	INO	FRO
Mean	56.05600	46.42000	32.88200	41.05700
Median	56.10000	45.60000	33.00000	42.10000
Maximum	86.00000	65.70000	54.20000	62.25000
Minimum	27.40000	12.70000	12.20000	21.40000
Std. Dev.	12.83945	11.31757	9.116965	9.493631
Skewness	0.025470	-0.767683	-0.343572	-0.227300
Kurtosis	2.845971	3.780994	2.911238	2.585494
Jarque-Bera	0.054833	6.181879	1.000098	0.788492
Probability	0.972956	0.045459	0.606501	0.674188
Sum	2802.800	2321.000	1644.100	2052.850
Sum Sq. Dev.	8077.723	6276.280	4072.834	4416.322
Observations	50	50	50	50

Source: Researchers' computation using Eviews 13.

Market Capitalization Change (MC) has an average value of 56.06%, ranging from 27.40% to 86.00%, with moderate variation (Std. Dev. ≈ 12.84%). Its distribution is approximately symmetric (Skewness ≈ 0.03) and close to normal (p-value for Jarque -Bera = 0.973). Individual Ownership (IDO) averages 46.42%, with a relatively wide range (12.70%–65.70%) and moderate dispersion (Std. Dev. ≈ 11.32%). It is negatively skewed (-0.77), slightly peaked (Kurtosis = 3.78), and shows marginal deviation from normality (p = 0.045). Institutional Ownership (INO) has a mean of 32.88%, varying between 12.20% and 54.20%, with moderate variability (Std. Dev. ≈ 9.12%). The distribution is slightly left-skewed (-0.34) and normally distributed (p = 0.607). Foreign Ownership (FRO) averages 41.06%, ranging from 21.40% to 62.25%, with moderate variation (Std. Dev. ≈ 9.49%). It is mildly negatively skewed (-0.23) and normally distributed (p = 0.674). Overall, the variables show moderate variability, mostly symmetric distributions, and no significant deviation from normality—except for Individual Ownership, which shows slight non-normality.

Correlation Analysis

Table 2 Covariance Analysis

Covariance Analysis: Ordinary
Date: 08/16/24 Time: 23:20

Sample: 2014 2023
Included observations: 50

Covariance Correlation	MC	IDO	INO	FRO
MC	161.5545 1.000000			
IDO	-59.98472 -0.421226	125.5256 1.000000		
INO	4.484808 0.039095	-9.779840 -0.096717	81.45668 1.000000	
FRO	6.514588 0.054536	-4.351320 -0.041325	-2.851754 -0.033620	88.32645 1.000000

Source: Researchers' computation using Eviews 13

The covariance and correlation results show the nature and strength of relationships among the study variables. MC and IDO have a negative correlation (-0.421), suggesting that increases in individual ownership are moderately associated with decreases in market capitalization change. MC and INO show a very weak positive correlation (0.039), indicating little to no meaningful linear relationship between institutional ownership and market capitalization change. MC and FRO also have a very weak positive correlation (0.055), implying minimal association between foreign ownership and market capitalization change. IDO and INO (-0.097) and IDO and FRO (-0.041) both have weak negative correlations, indicating slight inverse relationships among these ownership types. INO and FRO (-0.034) also show a negligible negative relationship, suggesting that institutional and foreign ownership levels are largely independent.

The results suggest that among the ownership variables, individual ownership shows the only notable relationship with market capitalization change, and it is moderately negative, implying that higher individual shareholding may be linked to lower market returns. In contrast, institutional and foreign ownership exhibit very weak positive correlations with market capitalization change, indicating little direct influence. The low correlations among ownership types also suggest that these shareholder categories operate largely independently within the sampled firms.

Unit Root Test

Below is the result of the Unit Root Test conducted to determine whether the relationships between the variables are stationary at level and thereby ascertain if the result of the regression can be trusted to reveal the true linear relationship. Thus, the Augmented Dickey-Fuller Unit root test is conducted to avoid the estimated regression being spurious. From the results obtained in Augmented Dickey-Fuller unit root test, shows that all variables are stationary at level at 5 percent level of significance.

Table 3 Augmented Dickey-fuller Unit Root Result

VARIABLES	ADF AT LEVEL	5% LEVEL OF SIGNIFICANCE	ORDER OF INTEGRATION
MC	-6.120063	-3.504330	@ I (0)
IDO	-5.203192	-3.504330	@ I (0)
INO	-6.186704	-3.504330	@ I (0)
FRO	-5.422702	-3.504330	@ I (0)

Source: Researchers' computation using Eviews 13

Test of Hypotheses

The result of panel data analysis below showing MC as dependent variable and IDO, INO and FRO as independent variables is the basis of the test of hypotheses.

Table 4 Panel Least Squares Regression Analysis

Dependent Variable: MC
Method: Panel Least Squares
Date: 08/17/24 Time: 00:16
Sample: 2014 2023
Periods included: 10
Cross-sections included: 5
Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
IDO	-0.476152	0.152445	-3.123439	0.0031
INO	-0.000350	0.189187	-0.001848	0.9985
FRO	0.050287	0.180983	0.277856	0.7824
C	76.10585	12.79584	5.947704	0.0000

R-squared	0.178812	Mean dependent var	56.05600
Adjusted R-squared	0.125256	S.D. dependent var	12.83945
S.E. of regression	12.00845	Akaike info criterion	7.885716
Sum squared resid	6633.328	Schwarz criterion	8.038678
Log likelihood	-193.1429	Hannan-Quinn criter.	7.943965
F-statistic	3.338806	Durbin-Watson stat	2.227689
Prob(F-statistic)	0.027260		

Source: Researchers' computation using Eviews 13

The regression results estimated using panel least squares for 50 balanced observations covering 2014–2023, examine the effect of shareholder diversity on the percentage change in market capitalization (MC). The R-squared value of 0.1788 indicates that approximately 18% of the variation in market capitalization changes is explained jointly by the three independent variables: individual ownership (IDO), institutional ownership (INO), and foreign ownership (FRO). The remaining 82% of the variation is attributable to other factors not captured in the model. The F-statistic probability (p = 0.0273) confirms a statistically significant joint linear relationship between the dependent and independent variables at the 5% significance level. The Durbin–Watson statistic of 2.23 suggests that there is no evidence of serial correlation in the residuals.

Hypothesis 1

H_{01}: There is no significant relationship between the percentage of individual ownership (IDO) and the percentage change in market capitalization (MC).

The coefficient for IDO is -0.4762, with a t-statistic of -3.1234 and a p-value of 0.0031, indicating a statistically significant negative effect at the 1% level. This implies that a 1% increase in individual ownership is associated with an average decrease of 0.476% in market capitalization change, holding other factors constant. Consequently, the null hypothesis is rejected, and it is concluded that individual ownership has a significant negative impact on market capitalization changes.

Hypothesis 2

H_{02}: There is no significant relationship between the percentage of institutional ownership (INO) and the percentage change in market capitalization (MC).

The coefficient for INO is -0.00035, with a t-statistic of -0.00185 and a p-value of 0.9985, showing no statistical significance. This suggests that changes in institutional ownership have virtually no measurable impact on market capitalization changes in the sampled firms. Therefore, the null hypothesis is accepted, and it is concluded that institutional ownership does not significantly affect market capitalization changes.

Hypothesis 3

H_{03}: There is no significant relationship between the percentage of foreign ownership (FRO) and the percentage change in market capitalization (MC).

The coefficient for FRO is 0.0503, with a t-statistic of 0.2779 and a p-value of 0.7824, indicating no statistical significance. This implies that foreign ownership has a positive but negligible effect on market capitalization changes in the sampled firms. Accordingly, the null hypothesis is accepted, and it is concluded that foreign ownership does not significantly influence market capitalization changes.

Cross-Section Dependence Test

Below is the result of Test conducted to ascertain whether the Cross-sectional dependence in the errors exist in the panel data.

Table 5 Cross-Section Dependence Test

Residual Cross-Section Dependence Test
Null hypothesis: No cross-section dependence (correlation) in residuals

Equation: Untitled
Periods included: 10
Cross-sections included: 5
Total panel observations: 50
Note: non-zero cross-section means detected in data
Cross-section means were removed during computation of correlations

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	17.22576	10	0.0695
Pesaran scaled LM	1.615729		0.1062
Pesaran CD	-0.884040		0.3767

Source: Researchers' computation using Eviews 13

The Breusch–Pagan LM (p = 0.0695), Pesaran scaled LM (p = 0.1062), and Pesaran CD (p = 0.3767) statistics all yield p-values above the 5% significance threshold, indicating failure to reject the null hypothesis of no cross-sectional dependence. This suggests that residuals across the cross-sectional units are independent, and standard panel estimators can be applied without bias from cross-sectional correlation.

Discussion of Findings

In estimating the models, the study employed both pooled OLS and panel effects estimations. The preferred estimates used in discussing the results were selected based on the descriptive statistics and the Hausman test, ensuring the robustness of the findings. The results revealed meaningful insights into the relationship between shareholder diversity and stock market returns. The first hypothesis tested whether the percentage of individual ownership has no significant influence on the percentage change in market capitalization. The regression results showed that individual ownership has a negative and statistically significant effect on market capitalization changes (p = 0.0031, significant at the 5% level). This indicates that an increase in individual ownership is associated with a reduction in market capitalization returns. Consequently, the null hypothesis was rejected, confirming that individual ownership exerts a significant negative influence on stock market returns. The second hypothesis examined the effect of institutional ownership on market capitalization changes. The findings revealed that institutional ownership has a negative but statistically insignificant effect (p = 0.9985). This suggests that institutional ownership does not exert a measurable influence on changes in market capitalization within the sampled manufacturing firms. Hence, the null hypothesis was accepted. The third hypothesis tested the relationship between foreign ownership and market capitalization changes. The results indicated a positive but statistically insignificant effect (p = 0.7824). This suggests that, although foreign ownership contributes positively to market capitalization, the effect is not strong enough to be deemed significant within the period under study. Accordingly, the null hypothesis was accepted.

These findings align partially with existing literature. For example, Jegadeesh and

Titman (1993) documented the momentum effect in stock returns, showing that past winners often continue to outperform. While their study focused on individual stock-level momentum, the present study extends the discourse to sector-level ownership structures in manufacturing firms, highlighting the nuanced role of shareholder diversity. Furthermore, the results resonate with the work of Pastor and Stambaugh (2003), who investigated the liquidity risk premium and found that less liquid assets tend to earn higher expected returns as compensation for bearing liquidity risk. Their use of asset pricing models, such as the CAPM and the Fama–French three-factor model, underscores the relevance of liquidity in understanding return dynamics. Similarly, this study emphasizes that shareholder diversity—particularly individual ownership—can influence market behaviour and efficiency, thereby shaping returns in ways consistent with broader asset pricing theories.

CONCLUSION

This study investigated the effect of shareholder diversity—measured by individual, institutional, and foreign ownership—on stock market returns of listed manufacturing companies in Nigeria between 2014 and 2023. The results revealed that individual ownership has a significant negative impact on market capitalization changes, while institutional and foreign ownership showed no significant effect. The findings suggest that concentrated individual shareholding may reduce market performance, whereas institutional and foreign ownership, though potentially beneficial, have not demonstrated measurable influence within the study period.

Implications of Findings

1. For Investors: The negative relationship between individual ownership and market returns highlights the risks of concentrated individual holdings, suggesting that dispersed and diversified ownership structures may better support market stability.
2. For Firms: The insignificant effect of institutional and foreign ownership implies that Nigerian manufacturing firms may not yet be fully leveraging the governance, capital access, and credibility benefits these shareholders typically provide in more developed markets.
3. For Policymakers and Regulators: The findings reinforce the need for stronger regulatory frameworks that encourage institutional participation and attract foreign investors, as their involvement could enhance governance quality, market depth, and overall efficiency.

RECOMMENDATIONS

1. Encourage Institutional Investment: Nigerian manufacturing firms should improve governance practices, disclosure, and transparency to attract and retain institutional investors who can provide stability and enhance firm performance.
2. Promote Foreign Investor Confidence: Regulators and firms should strengthen compliance with international reporting standards and corporate governance codes to attract foreign investors and harness their potential to boost market capitalization.

3. Diversify Ownership Structures: Firms should adopt ownership strategies that reduce excessive concentration of individual ownership, as broader shareholder diversity is more likely to stimulate liquidity and market efficiency.
4. Policy Support: Government and regulatory agencies should implement policies that deepen the Nigerian capital market, reduce barriers for institutional and foreign investors, and strengthen investor protection frameworks.

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