BOARD INDEPENDENCE AND FINANCIAL PERFORMANCE: EVIDENCE FROM QUOTED MANUFACTURING COMPANIES IN NIGERIA

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Abstract
Corporate governance remains a cornerstone of firm performance, particularly in developing economies where institutional frameworks are evolving. This study investigates the effect of board independence on the financial performance of quoted manufacturing companies in Nigeria between 2013 and 2022. Drawing on agency theory, which posits that independent directors serve as monitors to reduce agency costs and align managerial interests with those of shareholders, the study adopted an ex-post facto research design. Panel data regression techniques—including fixed effects, random effects, and least squares dummy variable models—were employed to analyze secondary data from 46 purposively selected firms. Descriptive statistics revealed a relatively high level of board independence, averaging 70.41%. However, inferential results showed no statistically significant effect of board independence on earnings per share (EPS), and a negative relationship with return on assets (ROA) in the fixed effects model. These findings suggest that while structural compliance with board independence norms is high, the effectiveness of such governance mechanisms in improving firm performance remains questionable. The study concludes that board independence alone does not guarantee enhanced financial performance unless complemented by genuine independence, expertise, and functional oversight. The research calls for further examination into contextual and qualitative factors influencing board effectiveness in Nigeria's manufacturing sector.

Key words: *Board Independence, Return on Asset, Earnings per Share, Financial Performance.*

Introduction

Corporate governance has long been recognized as a critical factor influencing firm performance, with particular emphasis placed on the structure and composition of the board of directors. Among various governance mechanisms, board independence—typically defined as the proportion of independent non-executive directors on the board—has received substantial scholarly and regulatory attention due to its presumed role in enhancing board oversight and accountability (Okoye, 2018 and Izedonmi , 2022). In the context of Nigeria's manufacturing sector, board independence has

emerged as a vital element in discussions around corporate transparency, managerial discipline, and shareholder value protection. The underlying theoretical rationale, drawn from agency theory (Jensen & Meckling, 1976), posits that independent directors serve as effective monitors of executive actions, thereby reducing agency costs, curbing managerial opportunism, and aligning management decisions with the interests of shareholders. Through such oversight functions, board independence is expected to improve the overall financial performance of firms.

In practice, however, the relationship between board independence and firm performance has produced mixed empirical outcomes within Nigeria's manufacturing sector. For example, a longitudinal panel study conducted by Wokeh and Kornom-Gbaraba (2023), which analyzed data spanning from 2012 to 2022, found that board independence exerted a positive and statistically significant influence on return on assets (ROA) among quoted manufacturing companies. The authors argue that increased board independence translates into stronger internal control mechanisms and reduced managerial discretion, which in turn contribute to enhanced operational efficiency and financial stability. Similarly, Mani, Eniola, and Okpanachi (2021) also reported a significant positive relationship between board independence and ROA in Nigerian manufacturing firms. Their findings highlighted that board independence, more than other governance attributes such as board size or CEO duality, plays a distinct and robust role in influencing firm profitability. Despite this supportive body of evidence, a number of studies challenge the universality of the positive association between board independence and performance. Notably, Davies (2023), using a panel regression approach, found that board independence in Nigerian manufacturing companies showed no significant effect on return on equity (ROE). Even more concerning, in some estimation models, board independence had a negative association with profit after tax (PAT), raising questions about the actual independence and effectiveness of some non-executive directors . These findings suggest that while independent directors are theoretically expected to function as unbiased monitors, practical limitations such as weak institutional enforcement, limited director expertise, or informal relationships with management may diminish their effectiveness in certain firms.

Further complicating the discourse is the recognition that the impact of board independence may vary across different performance metrics. For instance, a multi-metric study on Nigerian manufacturing firms found that while board independence was positively related to accounting-based measures such as ROA and ROE, it showed a negative relationship with Tobin's Q, a market-based indicator of firm value. This divergence underscores the possibility that board independence enhances short-term financial efficiency without necessarily translating into long-term market valuation

improvements.

In light of these mixed findings, it becomes clear that board independence, while theoretically beneficial, do not automatically yield positive results across all settings or measurement tools. The divergence in outcomes invites further research into the underlying mechanisms through which board independence affects firm performance. This study aim to examine the relationship between board independence and the financial performance of quoted manufacturing companies in Nigeria.

Objectives

1. To evaluate the effect of return on assets on the financial performance of quoted manufacturing companies in Nigeria.
2. To determine the effect of earning per share on the financial performance of quoted manufacturing companies in Nigeria.

Literature Review

Financial Performance

Financial performance analysis serves as a fundamental tool for assessing the extent to which an organization has adhered to financial implementation guidelines and achieved its strategic objectives. According to Abdul Rahman and Alsayegh (2021), as well as Rahman and Ialam (2018), financial performance analysis is essential in evaluating how effectively a firm implements financial management practices. Financial performance broadly refers to the effectiveness with which a firm's management utilizes resources to generate returns and meet operational goals over a specified period. It encompasses the outcomes of managerial decisions and strategic execution, measured primarily through the analysis of financial statements. Anao (2017), Okoye (2018), and Izedonmi (2022) also underscore that such analysis provides a critical appraisal of a company's financial health, allowing stakeholders to make informed decisions. Previous research has explored various dimensions and metrics of financial performance. As highlighted by Aborode (2005) and Akeem et al. (2014), common accounting-based indicators include return on equity (ROE), return on assets (ROA), earnings per share (EPS), and net profit margin. These metrics are typically derived from published financial statements and offer a snapshot of a firm's internal financial viability. Furthermore, market-based measures such as stock market returns and the volatility of such returns have been recognized as important external indicators of financial performance (Okodua & Ewetan, 2013). These market-oriented indicators reflect investor perceptions and are useful in gauging the firm's standing in the competitive marketplace.

Board Independence

Board independence refers to the extent to which a company's board of directors is free from internal management influence, particularly in decision-making processes. Independent directors, often referred to as non-executive directors, are not part of the company's day-to-day operations and are therefore presumed to offer objective judgment, monitor management, and protect shareholders' interests (Ali, 2016). The independence of the board is critical in ensuring corporate transparency, strategic oversight, and the alignment of managerial actions with stakeholder expectations. According to Carter et al. (2003), non-executive directors enhance board independence due to their detachment from executive management, enabling them to impartially evaluate financial and operational performance without bias or conflicts of interest.

Board independence is thus a cornerstone of good corporate governance, enhancing the board's ability to scrutinize executive decisions and hold management accountable. It also serves to reduce agency problems arising from managerial opportunism (Fama & Jensen, 1983). When board members have no material ties to the company beyond their directorial responsibilities, they are more likely to act in the best interest of shareholders and long-term firm performance. For instance, Bhagat and Black (2002), in a comprehensive empirical study, found no statistically significant relationship between board independence and firm performance when controlling for ownership structure, firm size, and industry effects. In fact, their findings suggested that firms with poor performance often increased board independence in response to external pressure, which raises questions about causality rather than correlation. Similarly, Sullivan and Wong (2019) argued that the benefits of board independence could diminish over time, especially if non-executive directors become entrenched. Long tenure might impair objectivity due to developed relationships with management, thus reducing the value of their oversight function. These divergent findings suggest that the effectiveness of board independence may be contingent on other moderating factors such as tenure, expertise, frequency of meetings, and board size.

Empirical Review

Several empirical studies have focused on the nexus between board independence and financial performance, especially in the manufacturing sector. For instance, Oyewale et al. (2016) conducted a study involving 34 purposively selected listed manufacturing firms in Nigeria and collected primary data via structured questionnaires from 170 respondents. The findings indicated a statistically significant and positive linear relationship between board independence and financial performance, thereby reinforcing the theoretical proposition that independent directors play a crucial role in enhancing firm outcomes.

In contrast, Dare (2018) examined how non-executive directors in Nigerian manufacturing companies influence corporate strategy and executive decisions. The study affirmed the monitoring role of independent directors, particularly in decisions involving CEO appointments and remuneration. However, it also pointed out that the presence of independent directors is not a guarantee of performance improvement if such directors lack industry expertise or are overly reliant on management for information.

Furthermore, Berthelot et al. (2010) emphasized that corporate governance ratings—of which board independence is a key component—affect investor perception and stock market valuation. This view aligns with the assertion by Brennan (2010) that board members are fiduciary agents, entrusted with protecting shareholders' investments and enhancing firm value.

Okoye and Eze (2019) conducted an empirical investigation using 27 manufacturing firms over a period of ten years (2009–2018) and observed that board independence had a weak and statistically insignificant effect on return on equity. The authors suggested that in Nigeria, board independence may be compromised by political affiliations, weak regulatory enforcement, and familiarity between independent directors and management.

Yerogba, Ogunleye, and Olowookere (2020) examined the impact of board structure on the financial performance of manufacturing companies listed on the NGX. Their findings showed that while board size and meeting frequency had a significant effect, board independence did not have a statistically significant influence on financial performance. They argue that mere inclusion of independent directors may be insufficient without ensuring their effectiveness and active participation.

Olayiwola and Oseni (2021) emphasized that independent board members in Nigerian manufacturing firms provide a check against financial misreporting, especially in environments where internal controls are weak. Their findings underscore the value of non-executive directors in strengthening oversight, enhancing transparency, and building investor confidence.

Uwuigbe et al. (2020) examined 50 manufacturing firms listed on the Nigerian Exchange Group (NGX) between 2010 and 2018. Using panel regression models, they found that the presence of independent directors was positively associated with return on assets (ROA) and return on equity (ROE). The authors attributed this to the monitoring role that independent directors play in curbing managerial opportunism and aligning management actions with shareholder interests.

Methodology

The study adopted the *ex-post facto* research design which is considered appropriate for analyzing historical data across different entities. It focused on the financial performance of quoted manufacturing companies in Nigeria over a ten-year period, from 2013 to 2022. The population included all 58 quoted manufacturing firms listed as of 31st December 2022, from which a purposive sample of 46 companies was selected. This non-probability sampling technique was applied to ensure the inclusion of companies with complete and relevant data for the study period. Secondary data were obtained from the annual reports and financial statements of the sampled companies. Data analysis proceeded in phases. Initially, pre-regression diagnostics were carried out, which included descriptive statistics such as means, minimum and maximum values, standard deviations, and total values for all variables. Post-estimation diagnostics were conducted to ensure the robustness of the model and to minimize the possibility of spurious results. These tests included assessments for multicollinearity, the Hausman specification test, group-wise heteroskedasticity test, and serial autocorrelation tests. The panel data regression techniques employed included Pooled Ordinary Least Squares (OLS), Fixed Effects (FE), and Random Effects (RE) models. The Hausman test was used to select between FE and RE models based on efficiency, while the Breusch-Pagan Lagrangian Multiplier test guided the choice between the pooled OLS and RE models. All statistical analyses were conducted using STATA version 14.

Analysis and Results

In testing for the relationship between Board independence and financial performance of listed manufacturing firms in Nigeria. In the descriptive statistics, each variable is examined based on its mean, standard deviation, maximum and minimum values. Table 1 displays the results obtained from the descriptive statistics.

Table 1 Descriptive Statistics Result

Variable |	OBS	MEAN	STD. DEV.	MIN	MAX
EPS |	456	2.047654	6.619375	-7.32	57.63
ROA |	456	3.194759	15.21635	-179.92	108.9
BDI |	452	70.4142	13.31215	25	100

Source: Authors' Computation

Table 1 describes the independent and dependent variables in relation to its arithmetic mean, standard deviation, maximum and minimum values for the period under review. A cursory look at the dependent variable return on total asset (ROA), the table reveals that the mean value of organizational performance is 3.19 corresponding to a standard

deviation of 15.21. The positive mean value is suggestive of growth potential of the average manufacturing firm. For the dependent variable of earnings per share (EPS), the table reveals a mean value of 2.05 corresponding to a standard deviation of 6.62 indicating that on average the sampled firms witnessed positive returns on earnings during the period under review. The results indicate that the sampled manufacturing firms are generating earnings and delivering favorable results to shareholders. The descriptive statistics result also shows that the mean value of board independence (BDI) is 70.41 corresponding to a standard deviation of 13.31 indicating a more than 60%, board independence for listed manufacturing firms in Nigeria during the period under consideration.

Data Normality Test

In this study normality of data test using Shapiro Wilk test procedure is conducted as shown in Table 2.

Table 2 Data Normality Test Result

Variable |	OBS	W	V	Z	PROB>Z
EPS |	456	0.43914	173.662	12.345	0.00000
ROA |	456	0.69817	93.458	10.862	0.00000
BDI |	452	0.97252	8.443	5.105	0.00000

Source: Author Computation

The Table 2 shows the result obtained from the Shapiro-Wilk normality test for the data employed in this study. It is observed that the dependent variables of firm performance return on total asset and earnings per share show mixed data distribution in that while ROA (z = 10.862; Prob>z = 0.00000) variable is not normally distributed due to its statistically significant probability CEO tenure (z = -3.553; Prob>z = 0.99981) is seen to be normally distributed due to its statistically insignificant probability level. A cursory look at the independent variables shows that board independence (BDI) (z = 5.105; Prob>z = 0.00000).

Table 3 Earnings Per Share & Return on Total Asset Linear Regression Analysis Result

	EPS Model (Fixed Effect)	EPS Model (Random Effect)	EPS Model (Multi-Level Mixed Effect)	ROA Model (Fixed Effect)	ROA Model (Random Effect)	ROA Model (LSDV Regression)
CONS.	-22.621 (0.004) **	-18.527 (0.000) ***	-16.987 (0.000) ***	-30.349 (0.266)	8.562 (0.366)	-33.145 (0.000) ***
BDI	0.007 (0.651)	0.009 (0.569)	0.024 (0.254)	-0.115 (0.039)	-0.083 (0.096)	0.064 (0.274)
F-stat/Wald	2.92 (0.0023) **	43.97 (0.0000) ***	198.00 (0.0000)	16.59 (0.000) ***	172.13 (0.0000	6.21 (0.0000)

Stat		***		) ***	***
R- Squared	0.0622	0.0597	0.2733	0.2638	0.1859
VIF Test = 2.17					
Hausman Test Chi^2 = 12.74, Probability = (0.1747)			Hausman Test Chi^2 = 26.05, Probability = (0.0026)		
Joint Test for Normality E: =11.21 (0.0037), u: = 17.72 (0.0001)			Test for Groupwise Heteroskedasticity Chi^2 = 35634.01, Probability = (0.0000)		
Note: (1) bracket () are p-values; (2) **, ***, implies statistical significance at 5% and 1% levels respectively					

The regression results show that multicollinearity is not a concern, with a mean VIF of 2.17. Both the fixed and random effects models for Earnings per Share (EPS) are statistically significant, with F-statistics and Wald-statistics indicating strong model fit. The R-squared values for EPS models (0.0622 and 0.0597) suggest that about 6% of the variation in EPS is explained by the predictors. For the Return on Total Asset (ROTA) model, the Hausman test (p = 0.0026) supports using the fixed effect model. However, a significant groupwise heteroscedasticity problem was detected in the fixed effect model. Consequently, panel least square dummy variable regression was applied to address this issue.

Findings and Discussion

The results of the regression analysis provide mixed evidence regarding the effect of board independence on the financial performance of quoted manufacturing companies in Nigeria. Descriptive statistics show that the mean board independence level (BDI) is relatively high at 70.41%, suggesting that Nigerian manufacturing firms have complied substantially with recommended corporate governance practices. Also, firms on average reported positive financial outcomes, as reflected in the mean values of EPS (2.05) and ROA (3.19). However, inferential analysis indicates that board independence (BDI) has no statistically significant effect on earnings per share (EPS) across all model specifications (p-values > 0.05). Similarly, BDI does not significantly influence ROA in most models, except in the fixed effect model where a statistically significant negative relationship was observed (β = -0.115, p = 0.039). This implies that a higher proportion of independent directors may not necessarily lead to improved accounting-based financial performance, and may even negatively affect firm returns in some contexts. This finding aligns with Bhagat and Black (2002), who also found no consistent relationship between board independence and firm performance, suggesting that board independence alone does not guarantee better outcomes. Sullivan and Wong (2019) similarly argue that prolonged tenure of non-executive directors could reduce their effectiveness due to familiarity bias or entrenchment. The possible negative effect observed in ROA could stem from tokenism or symbolic board appointments, where

directors lack the autonomy or expertise to challenge executive decisions effectively.

On the other hand, the results contradict studies such as Oyewale et al. (2016) and Wokeh and Kornom-Gbaraba (2023), which found a positive and significant relationship between board independence and firm performance in Nigeria. This inconsistency may reflect contextual differences, including firm-specific governance culture, regulatory enforcement, or methodological variances such as performance proxies used. Overall, while the sampled manufacturing firms demonstrate structural compliance with board independence norms, the anticipated performance benefits may not materialize unless board members possess real independence, financial acumen, and effective oversight capability. This reinforces the agency theory assertion that governance mechanisms must be functional, not just formal, to align management interests with shareholder value.

Conclusion and Recommendations

This study set out to examine the relationship between board independence and the financial performance of quoted manufacturing companies in Nigeria over a ten-year period. The empirical findings reveal a high structural presence of independent directors on corporate boards, in line with recommended governance codes. However, despite this formal compliance, board independence did not exhibit a statistically significant positive impact on either earnings per share (EPS) or return on assets (ROA) in most of the regression models. Notably, a negative relationship was observed between board independence and ROA in the fixed effects model. These mixed results challenge the assumption that board independence automatically translates into improved financial performance. Instead, the findings point to the possibility that independent directors may be constrained by limited autonomy, inadequate financial expertise, or informal ties with management. This undermines their monitoring function and reduces their effectiveness in enforcing accountability. Consequently, the results support the argument that governance mechanisms must be substantive and not merely symbolic. Thus, while board independence is an important structural aspect of corporate governance, its ability to enhance firm performance in the Nigerian manufacturing sector appears to depend significantly on the quality, expertise, and true independence of the board members rather than their numerical presence alone.

The study therefore recommends that:

i. Regulatory bodies and company stakeholders should go beyond numerical representation and ensure that independent directors have real autonomy, the authority to question executive actions, and access to relevant company information.

ii. Independent directors must possess industry-specific knowledge, financial literacy, and strategic insight to contribute meaningfully to board deliberations. Regular capacity-building programs should be institutionalized to enhance their effectiveness.
iii. The appointment of non-executive directors should be based on merit, free from political or personal affiliations, to avoid tokenism and ensure that appointed directors can serve as impartial monitors.
iv. Companies should introduce independent assessments of board effectiveness, focusing on the contributions of non-executive directors to strategic oversight, risk management, and financial accountability.

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