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EFFECT OF CORPORATE GOVERNANCE ON FIRM VALUE OF LISTED INDUSTRIAL MANUFACTURING COMPANIES IN NIGERIA

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Abstract

This study investigates the effect of corporate governance mechanisms on firm value in listed Industrial manufacturing companies in Nigeria. Data was collected from a sample of firms over 10 years period from 2014-2023, focusing on key governance variables including board size, board independence, and gender diversity and firm value. Longitudinal research design was adopted and panel multiple regression was used for the analysis. The findings reveal that board size and board independence exert a statistically significant positive effect on firm value, while board gender diversity exerts a significant negative effect on firm value. The study recommends among others that Industrial manufacturing companies should evaluate and adjust board size to ensure an optimal balance of expertise, diversity, and skills. Consider industry-specific requirements and governance best practices when determining the appropriate number of board members. Also, Industrial manufacturing companies should strengthen board independence and diversity to ensure effective oversight of managerial decisions. Increase the proportion of independent directors with relevant industry expertise and governance experience to enhance accountability and mitigate potential conflicts of interest.

Keywords: Corporate Governance, Value

1.0 Introduction

Corporate governance is a cornerstone of sustainable business practices, with its role in driving firm value receiving widespread attention in both academic and professional circles. Globally, the discourse on corporate governance has emphasized the need for effective board structures, including optimal board size, board independence, and gender diversity. The collapse of major corporations such as Enron, Lehman Brothers, and Wirecard brought corporate governance deficiencies to the forefront, highlighting how poorly structured boards contribute to financial irregularities and erode firm value. Studies have shown that firms with well-constituted boards experience stronger financial performance, with evidence from the United States and Europe indicating that independent and diverse boards are associated with an average increase of 12% in market value (Adams and Ferreira, 2023). Gender diversity on boards, in particular, has been linked to improved decision-making and risk management, with firms boasting higher proportions of women directors outperforming their peers in terms of return on equity (Smith et al., 2022). African economies are increasingly acknowledging the critical role of corporate governance in attracting foreign direct investment and enhancing firm competitiveness. Despite these advancements, governance practices in the region are often hindered by weak regulatory enforcement, political interference, and cultural barriers to diversity. For instance, in Sub-Saharan Africa, only 18% of board seats are occupied by women, compared to a global average of 26% (World Economic Forum, 2023). While frameworks such as South Africa's King IV Report have set benchmarks for governance practices, implementation remains uneven. Evidence from South African firms suggests that boards with diverse and independent members achieve superior financial outcomes, with an average increase of 9% in firm valuation compared to firms with less diverse boards (Moyo and Sithole, 2022). However, in many African countries, board size and independence remain inadequately structured, often influenced by dominant shareholders who prioritize personal interests over firm value.

In Nigeria, the corporate governance landscape has evolved significantly over the past two decades, spurred by regulatory reforms and the introduction of the Nigerian Code of Corporate Governance (NCCG) in 2018. Despite these efforts, the industrial goods manufacturing sector continues to grapple with governance challenges. Recent data indicates that only 40% of listed industrial goods firms in Nigeria meet the NCCG's recommended threshold for independent directors, and women occupy less than 15% of board positions in this sector (Suleiman and Adegbite, 2023). These shortcomings hinder the sector's potential to maximize firm value and attract investor confidence. Furthermore, the issue of optimal board size remains contentious, as firms often adopt oversized boards that lead to inefficiencies or undersized boards that lack the expertise and diversity required for effective decision-making. The sector, which contributed approximately 18% to Nigeria's GDP in 2023 (National Bureau of Statistics, 2023), is crucial for the country's economic development, yet its governance practices lag behind global standards.

Despite the extensive global research on corporate governance and its impact on firm value, there is a limited understanding of how board characteristics, such as board size, board independence, and gender diversity, influence firm value in emerging economies like Nigeria. Most studies focus on developed markets or other sectors, with minimal attention to the industrial goods manufacturing sector, a critical contributor to Nigeria's economy. The available Nigerian studies often provide inconsistent findings or concentrate on compliance rather than empirically analyzing the impact of specific governance variables on firm value. This lack of sector-specific evidence leaves a critical gap in understanding how governance practices affect firm value in this unique context.

The motivation for this study arises from the pressing need to explore how corporate governance dimensions specifically board size, board independence, and gender diversity affect firm value in Nigeria's industrial goods manufacturing sector. While existing literature extensively documents the relationship between governance structures and firm performance in developed markets, the evidence from Nigeria remains limited and fragmented. Understanding these dynamics is particularly crucial in a sector characterized by concentrated ownership and regulatory challenges, where governance reforms could significantly enhance firm value. By providing a comprehensive analysis of corporate governance practices in this context, this study aims to bridge the gap in empirical knowledge and contribute actionable insights for policymakers, investors, and corporate leaders striving to optimize governance frameworks and drive firm value in Nigeria.

2.0 Literature review

Corporate Governance

Corporate Governance (CG) is the process which facilitates the creation of shareholder's value, protection of the individual and collective interests of all stakeholders in an establishment are achieved through. Corporate governance is generally associated with the existence of agency problem and its roots can be traced back to separation of ownership and control of the firm. Corporate governance arranges not only the internal administration of the firms; it is also connected with a firm's relationship with its suppliers, customers and other stakeholders. Corporate governance varies from entity to entity and the geographical region of countries. Its ultimate goal is to standardize, gain a high rate of return and prevent financial structure in attaining their targets at the expense of the investors. It must be acknowledged that feeble corporate governance or non-compliance of its doctrine could prompt financially abuses, corporate frauds and generate heavy losses for the companies (Hussain & Abdul Hadi, 2017).

Du-Plessis and Harris (2018) defined business corporate as a system of policies, processes, ethical standards, and organisational structures that promote effective business practices that are centred on the demands of various shareholders. The importance is to help the firm to accomplish the firms' objectives, business risks, and make economy decisions to avoid difficulties. The Organization for Economic Corporation and Development (2004) defined corporate governance as a system that specified a given division of competencies and responsibilities between parties. It is the relationship that exists between the participants and defines the direction and performance of a corporation and other bodies like the chief executive officer, management, board of directors and shareholders. On the other hand, corporate governance initially appeared to minimize conflict of interest between management and shareholder given the separation between ownership and control. Corporate governance is a technique and structure used to control the business exercises of the economic system of the organization towards expanding business triumph (Prasad, 2011).

Board Size

Board size refers to the total number of directors on the board of as at a particular accounting period. When the number of directors on the board is large, firms would get more access to various resources in comparison to the case when board size is small. The larger board of directors, the more experienced and knowledgeable people will be available which will lead to more careful learning, decision making process and ultimately better firm performance. Larger board of directors is harmful to firms' performance (Switzer & Tang, 2009). According to the resource dependence theory, the more the members to the board, the better would be the quality of decisions taken by the firm. This would then enhance firm performance. On the contrary, a lesser number of members on the board would increase the chances of managers overdoing on personal pursuits and utilizing firms' resources for meeting personal needs (Jensen,1993).

Board Independence

Board independence refers to the composition of a company's board of directors, specifically the extent to which individuals serving on the board are independent from the management and operational functions of the company. Independent directors are those who do not have significant relationships with the company, its executives, or its major shareholders that could compromise their ability to exercise impartial judgment. Board of directors include several executives who might be non-independent or independent directors. The board provides essential work as it monitors the management team of the firm. Many independent directors are preferable for investors. It is also called outside director (Muniandy & Hillier, 2015).

Board Gender Diversity

Adams and Ferreira (2023) defined board gender diversity as the proportion of female members on a corporate board which influences decision-making processes, governance effectiveness, and firm performance by introducing varied perspectives and experiences. According to Smith et al. (2022), gender diversity on boards is the inclusion of individuals of different genders, particularly women, in corporate leadership positions fostering balanced viewpoints, enhanced risk management, and strategic innovation Carter, Simkins, and Simpson (2003) board gender diversity is the presence of women on boards which enhances governance through the infusion of diverse social and professional perspectives promoting better oversight and accountability. Matsa and Miller (2011) gender diversity on boards refers to the representation of women as directors which contributes to improved governance and ethical decision-making by mitigating groupthink and encouraging deliberation. Terjesen, et al (2009) sees board gender diversity as the presence of both male and female members on corporate boards ensuring varied insights and approaches to problem-solving which is critical for dynamic boardroom functionality. Bear, et al. (2010) gender diversity on boards is defined as the proportion of women directors on a corporate board contributing to improved corporate social performance and a broader understanding of stakeholder needs.

Firm Value

Ida et al. (2019) defined firm value as the worth of a business that is mostly affected the equity price of prospective economy undertakings. Thus, increasing the value of its stock, a corporation may be able to maximise shareholder wealth. The effect of rise in stock value does imply a high enterprise value (Thanh & Van, 2022). value also known as firm value or business value, refers to the total economic worth of a business entity. It represents the sum of the company's tangible and intangible assets, its earning potential, and the market perception of its future prospects. Firm value is a comprehensive measure that reflects the financial health, performance, and overall standing of a business in the marketplace. Firm's value is the potential price that buyers are willing to pay if the firm is sold. The firm's value is also defined as the market value because firm's value can maximize shareholders wealth, if the stock price increases (Hasnawati, 2005).

According to Sartono (2010), companies with a long-term target of maximizing revenue and expanding properties of shareholders tend to optimize its own value (firm value). Winarto (2015) stated that a company can take a lot of advantages thanks to the growth of firm value, such be accessible to the capital market's funding source or at competitive/high selling price in case of mergence. Firm value is the perception of the investor to the success of a company. It is reflected in the share price of the company. The increase of the share price shows the trust of the investors to the company. They are willing to pay more with aiming for a higher return. The firm value is the total assets owned. It consists of the market value of share and liabilities (Damodaran, 2002). The high stock price can provide a good signal to attract investors to determine investment decisions.

Empirical Review

Azam and Wang (2021) examined the influence of the characteristics of the audit committee on Palestinian firms' value. The research explores precisely the effect on the Audit Committee characteristics' efficiency, namely, independence, expertise, evaluating the relationship among dependent and independent variables. Secondary data collected from a list of companies were registered in the Palestine Stock Exchange from 2011 to 2018. Individual variables considered are the independence & expertise of the audit committee, whereas the ROA is employed as the dependent variable as an indicator of a firm's value. The results showed that the Audit Committee's independence & expertise substantially positive with firm value. The study concluded that the audit committee's characteristics are enhancing firm value. The implications of this study's findings can be used by decisions and policymakers, the firm's management, and other stockholders' interests to create reliable ties between agents and the principals.

Bakay (2021) examined the relationships and interactions between corporate governance and firm values of lodging companies with different characteristics. The companies were analyzed separately using a classification and regression tree (CRT) analysis. The analysis results did not show a direct relationship between value and governance, yet that does not mean there is no relationship between them. When the companies' governance scores were similar, corporate governance showed no distinguishing variable on firm value but is a hygiene factor. The analysis also found negative relationships between value and size. This may be important in preventing companies from becoming cumbersome. Also, positive relationships were found between value and the debt ratio of the lodging companies from the most valuable brands. This relationship showed the significance of using the debt ratio as a control tool in evaluating management performance.

Bamidele et al. (2022) examined effect of corporate governance, corporate financing on firm value of listed food and beverage companies in Nigeria between 2011 and 2020. Secondary data from published audited financial reports of 10 randomly sampled companies in the industry was used. Panel pooled estimate least square regression results indicate the impact of corporate governance through CEO duality and audit committee on market capitalization value of food and beverage companies in Nigeria is mixed while corporate finance has positive and significant relationship with firm value of the sampled companies in the Consumer Goods sector in Nigeria. Consequently, the researchers establish that during the study period, corporate governance (CEO duality and audit committee) and corporate finance (short and long-term debts to total assets) have significant influence on the market capitalization value of food and beverage firms in Nigeria.

Anas et al. (2022) tested gender diversity's impact on a firm value. The sample included over 39 S&P BSE SENSEX 50 listed Industrial manufacturing companies with six years of data (2014–2020). Using panel regression, the results show that board meetings and gender diversity within the board had a negative impact on the company's value. Moreover, the authors determined that gender diversity moderates positively the relation between board size and firm value.

Arlita and Aghivirwiati (2021) examined the effect of good corporate governance on firm value by using purposive sampling method for companies that were ranked as the most trusted and trusted companies during 2017-2019. A total of 16 companies were observed for 3 years. The results of this study found that good corporate governance has no significant effect on firm value. This may occur because the intended external stakeholders in the capital market do not utilize information regarding good corporate governance as the main consideration in making short-term investment-related decisions.

Awad et al. (2023) examined the impact of board size and gender diversity on the firm value of 354 Industrial manufacturing firms listed on the Gulf Cooperation Council (GCC). The vital importance of this paper is to shed light on the presence of female directors on the boards of directors in the GCC. The study applied several estimation techniques such as ordinary least squares (OLS) and panel regression (fixed & random effect) on a dataset that is extracted from the Refinitiv Eikon platform for the period 2010–2022. This investigation controlled for firm age, firm size, profitability, and leverage in the model developed. The significant result of the Hausman test approved the results of the fixed effect model which reveals that gender diversity, firm size, profitability, leverage, and board size significantly positively impact the firm value, unlike the firm age which appeared to be statistically insignificant. The results imply that the larger the board size and the higher the presence of women on the boards of directors in the GCC region, the better the profitability. This indeed recommends the decision takers include more members especially women in the decision-making process.

Agency Theory

Agency theory revolves around the issue of the agency problem and its solution which was developed by Jensen and Meckling (1976). In the study of Brahmadev et. al., (2017), agency theory according to Jensen and Meckling (1976) is centered on the relationship that exists between the owners and agent to act on behalf on the issues relating to the day-to-day operations of tsiness. The agency theory brought forward the issue or problem of agency (Jensen & Meckling, 1976). The problem of agency is a micro cost associated with the agents as a result of the disagreement of interest between the principal and the. However, agency cost consists of the cost of assessing and getting agent the skill set require achieving the goals of the business, cost of getting and gathering information to assess the performance and set standard for performance, also cost incurred in monitoring the action of the agent, cost of bonding and the consequences due to unprofessional decisions of the agents.

Agency theory, as articulated by Jensen and Meckling (1976), serves as a foundational framework for understanding the intricacies of the principal-agent relationship within corporations. The theory acknowledges the separation of ownership and control, giving rise to conflicts of interest between shareholders (principals) and managers (agents). These conflicts, if not properly addressed, can result in agency costs, which encompass monitoring, bonding, and residual loss expenses incurred by shareholders in their efforts to align managerial behavior with shareholder interests (Jensen & Meckling, 1976).

Corporate governance mechanisms emerge as pivotal tools for mitigating agency costs and fostering alignment between shareholders and managers. The board of directors, a fundamental element in the corporate governance structure, plays a central role in overseeing managerial decisions and safeguarding shareholder interests (Jensen & Meckling, 1976). Independent directors, in particular, serve as monitors to ensure that managerial actions are congruent with the pursuit of long-term shareholder wealth maximization.

3.0 Methodology

The study adopts longitudinal research design. This design describes relationships between dependent and independent variables over a long period of time. Longitudinal research design allows measurements of the variables over distinct time periods. In this study, the design was used to evaluate the effect of corporate governance on firm value of listed Industrial manufacturing firms in Nigeria. The population of this study is twelve (12) listed companies on the Nigerian Exchange Group (NGX) as of December 31st, 2023. Multiple linear panel regression analysis technique was used to explain the relationship and how much influence independent variables have on the dependent variable. The study shall conduct a fixed and Random model in which the selection of the appropriate model is based on the Hausman p-value.

$$Tobin's\ Q_i t = \alpha + \beta 1BSIZE_i t + \beta 2BINDE_i t + \beta 3GENDIVE_{it} + \varepsilon_{it}$$

Where;

Tobin's Qt: Tobin's Q (Firm Value)

BSIZEt: Board Size

BINDEt: Board Independence

GENDIVEt: Board Gender Diversity

α: Constant coefficient

β1β2β3: Coefficient of the parameter estimate

ε: Error term

Definition and Measurement

Variable	Type Variable	Variable Measurement	Construct Validity
Firm value	Dependent	Tobin's Q = Market value of equity plus book value of preferred stock plus book value of total debt divided by the sum of book value of total assets	Sweety and Mandeep (2014), Manoj and Manoranjan (2016)
Corporate Governance Variables			
Board size	Independent	Number of directors at the board	Usman and Yahaya (2023), Muganda and Umulkher (2023)
Board independence	Independent	Proportion of independent directors to board size	Tahir et al (2023), Abbassi et al. (2021)
Board Gender Diversity	Independent	Proportion of female on the board of directors	Ramadhan et al (2022), Erlina and Hasan (2022)

4.0 Result and Discussion

Table 1 Descriptive Statistics

The result below shows brief informational coefficients that summarized collated data set from the sampled companies. It contains the elements of the variables ranging from the mean, minimum and maximum.

	TQ	BSIZE	BINDE	GENDIVE
Mean	0.696396	13.94000	0.597661	0.185600
Median	0.521896	14.00000	0.571429	0.190000
Maximum	2.627136	21.00000	0.923077	0.670000
Minimum	0.004268	10.00000	0.176471	0.000000

Source: E-View Output, 2024

Firm value ranges from a minimum of 0.004268, indicating a very low in the company's assets, to a maximum gain of 2.63. The mean value of 0.696 suggests that, on average, the companies achieved a profit of approximately 0.70. On the other, a maximum firm value of 2.63 indicates that some companies achieved notable gains. This positive value reflects successful business strategies, effective management, and favorable market conditions. The substantial gain shows that certain firms were able to capitalize on opportunities, optimize their operations, and enhance their profitability significantly. The mean firm value of 0.696 implies that, on average, the companies generated a moderate profit of about 0.70. This average profit indicates a generally positive performance across the firms, suggesting that the majority managed to operate profitably despite the presence of outliers on both ends of the spectrum. The mean value serves as an overall indicator of the sector's financial health, showing a tendency towards profitability.

Board size shows that the average board size among the companies was 14 members. The average board size of 4 members suggests a balance that is likely to be in line with the optimal board size theory. According to this theory, there is an ideal range for board size that optimizes decision-making efficiency and oversight capabilities without becoming unwieldy. An average board size of 14 members can enhance firm value by providing diverse perspectives and expertise, improving strategic decision-making, and offering better oversight The minimum boar members are 10 while the maximum is 21 people.
Board independence results show a minimum board independence of 0.176471 and a maximum of 0.923077, indicating that board independence ranges from 17% to 92.3%. This high level of board independence suggests that companies are likely to perform well due to the strong oversight provided by independent directors. On average, the companies had 0.597661 (60%) board independence. High board independence, as indicated by the maximum value of 92.3%, suggests that independent directors can provide robust oversight and monitor management effectively. This can lead to better decision-making, reduced risk of unethical practices, and improved overall governance, all of which can enhance firm value. Board diversity ranges between 0 and 0.67, with an average of 0.1856, indicating the proportion of female directors on the board. This implies that, on average, women constitute 18.56% of board members in the sampled firms. The range shows that some boards have no female representation, while others have up to 67% female directors. These statistics highlight the varying levels of gender diversity across firms, suggesting that many boards still lack substantial female representation, which may influence governance practices and decision-making dynamics.

Table 2 Correlation Matrix Result

	TQ	BSIZE	BINDE	GENDIVE
TQ	1.000000			
BSIZE	-0.004769	1.000000		
BINDE	0.060315	-0.498476	1.000000	
GENDIVE	-0.093063	0.216154	-0.239842	1.000000

Source: Eview Output, 2024
A correlation result is a statistical measure that describes the degree to which two variables move in relation to each other. The correlations vary across different variables, as shown in the results. Board independence has positive relationships with firm value, while board size and gender diversity show negative correlations with firm value.

Table 3 Heteroskedasticity Diagnostic Tests

Regression assumptions:	Test:	We seek values
1) no heterokedasticity problem	Breusch-Pagan hettest Chi2(1): 1.409 p-value: 0.235	> 0.05

Source: Eview Output, 2024

Using the Breusch-Pagan-Godfrey estimation technique to test for heteroskedasticity, the result showed an Observed R-Squared of 1.409 with a probability value of 0.235. Since these values are greater than the 5% significance level, it indicates homoscedasticity of the residuals. This absence of heteroskedasticity suggests that the residuals are homoscedastic, as per the null hypothesis, which contrasts with the alternative hypothesis that posits heteroscedasticity.

Table 4 Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
BSIZE	6.90E-06	6.153077	2.961870
BINDE	0.011785	21.70635	1.009578
GENDIVE	0.024449	4.783715	2.978335
C	0.004704	23.12753	NA

Source: Stata 17 Output, 2024

A multicollinearity test was conducted to determine if the explanatory or independent variables were highly correlated. Variables are considered highly correlated if their Variance Inflation Factor (VIF) is greater than 10. However, the respective VIFs were all less than 10, indicating the absence of multicollinearity. Thus, the study concludes that multicollinearity is not a concern, and it should not affect the statistical inferences derived from the regression model, affirming the model's adequacy.

Table 5 Normality Tests

residuals are normally distributed	Shapiro-Wilk W normality test z: 0.735 p-value: 0.231	> 0.01

Source: Eview Output, 2024

The Shapiro-Wilk W test was used to assess the normal distribution of the variables. The null hypothesis posits that the residuals are normally distributed, while the alternative hypothesis suggests they are not. If the test p-value is less than the 5% significance level, the null hypothesis is rejected, indicating non-normal distribution of the residuals. However, with a p-value of 0.231 (23.1%), which is greater than 5%, the result indicates that the residuals are normally distributed.

Table 6 Hausman Specification

Chi2(9)	=	83.81
Prob>chi2	=	0.0000

Source: Eview Output, 2024

The Hausman Test results, as shown in Table 4.6, indicate that the probability value of the chi-square is less than 0.05 (0.0000 < 0.05). Consequently, the study concludes that the fixed effect model (FE) is the preferred model, in accordance with the null hypothesis. Since the Hausman Test specifies the fixed-effect model, there is no need to conduct the Lagrange test. Therefore, the hypotheses are tested using fixed effect regression.

Table 7 Regression Result/Test of Hypotheses

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BSIZE	0.070250	0.002427	28.94181	0.0000
BINDE	0.566491	0.116356	4.868604	0.0000
GENDIVE	-0.156622	0.145430	-1.076955	0.2842
C	-0.304416	0.081430	-3.738376	0.0003
		Effects Specification		
			S.D.	Rho
Cross-section random			0.112164	0.5024
Idiosyncratic random			0.111638	0.4976
		Weighted Statistics		
Root MSE	0.107923	R-squared		0.560668
Mean dependent var	0.209075	Adjusted R-squared		0.559439
S.D. dependent var	0.546916	S.E. of regression		0.110148
Sum squared resid	1.164733	F-statistic		781.5796
Durbin-Watson stat	1.671927	Prob(F-statistic)		0.000000
		Unweighted Statistics		
R-squared	0.952457	Mean dependent var		0.696396
Sum squared resid	1.972718	Durbin-Watson stat		0.987140

Source: Eview Output, 2024

The coefficient of determination indicates that the model explains 56% of the variation in firm value, while the remaining 44% is due to other variables not included in the model. The F-statistic, with a significance level of less than 5%, demonstrates that the combination of the variables is statistically significant.

Board size exerts a statistically significant positive effect on firm value at the 5% significance level. This suggests that an increase in board size by one person results in a coefficient increase of firm value by 0.070. Therefore, we reject the hypothesis that board size has no significant effect on the firm value of listed Industrial manufacturing companies in Nigeria. This rejection implies that there is sufficient evidence to conclude that board size does indeed matter in influencing firm value for listed Industrial manufacturing companies in Nigeria. The finding that board size has a positive significant effect at the 5% significance level indicates that this relationship is not likely due to random chance. Instead, there is evidence to support the claim that larger boards contribute positively to firm value.

Board independence significantly and positively affects firm value. An increase in the proportion of independent executive directors is associated with a coefficient increase in firm value by 0.57. Therefore, the study rejects the hypothesis that board independence has no significant effect on the firm value of listed Industrial manufacturing companies in Nigeria. This rejection implies that the study's findings provide robust evidence supporting the positive impact of board independence on firm value in the context of Nigerian Industrial manufacturing companies. The finding that board independence has a positive significant effect indicates that this relationship is unlikely due to random chance. Instead, there is strong evidence suggesting that boards with more independent directors tend to enhance firm value. The coefficient provided (0.57) quantifies the extent of the impact. It suggests that for each unit increase in the proportion of independent executive directors on the board, firm value increases by approximately 0.57 units. This substantial increase shows the critical role of independent oversight in driving firm performance.

Board gender diversity has negatively affects the firm value of listed industrial manufacturing companies in Nigeria due to cultural and systemic factors. The industrial manufacturing sector is traditionally male-dominated, and female directors may face challenges in asserting influence, leading to slower decision-making processes. Additionally, some boards prioritize tokenism over meaningful inclusion, resulting in limited opportunities for female directors to contribute effectively. These dynamics can reduce board cohesion and decision-making efficiency, which may impact firm performance and value negatively. Moreover, the sector's unique challenges, such as regulatory complexities and economic instability, require swift and decisive board action. Boards with diverse gender compositions might face delays in building consensus, particularly if the members lack shared experiences or if gender biases persist. Investors' perceptions also play a role; some stakeholders in the Nigerian context may view diverse boards as less aligned with industry demands, potentially reducing investor confidence and firm valuations. These factors highlight the need for structural reforms to maximize the benefits of gender diversity in enhancing firm value.

5.0 Conclusion and Recommendations

The finding that board size exerts a statistically significant positive effect on firm value for listed Industrial manufacturing companies in Nigeria indicates the importance of board composition in organizational performance. An increase in board size by one person leads to a coefficient increase in firm value, highlighting the role of board members in governance and decision-making processes.

The finding that board independence significantly and positively affects firm value for listed Industrial manufacturing companies in Nigeria indicates the critical role of independent executive directors in governance and organizational performance. An increase in the proportion of independent directors leads to a coefficient increase in firm value, highlighting their influence in mitigating agency conflicts and enhancing strategic decision-making.

The study concludes that while board gender diversity is a vital element of corporate governance, its effect on the firm value of listed industrial manufacturing companies in Nigeria appears to be context-dependent. Cultural biases, insufficient support for female directors, and the operational demands of the industrial manufacturing sector may undermine the potential benefits of diversity. Additionally, the mixed perceptions of stakeholders about gender-diverse boards may further contribute to the observed negative impact on firm value. Addressing these barriers is critical to realizing the full value of diversity within boards.

Based on the finding and conclusion, the study recommends the following:

Industrial manufacturing companies should evaluate and adjust board size to ensure an optimal balance of expertise, diversity, and skills. Consider industry-specific requirements and governance best practices when determining the appropriate number of board members.

Industrial manufacturing companies should strengthen board independence and diversity to ensure effective oversight of managerial decisions. Increase the proportion of independent directors with relevant industry expertise and governance experience to enhance accountability and mitigate potential conflicts of interest. They should strengthen governance frameworks by appointing independent directors, establishing clear oversight mechanisms, and promoting transparency in decision-making processes. This can help mitigate agency conflicts and enhance investor confidence.

To optimize the benefits of board gender diversity and enhance firm value, companies in the Nigerian industrial manufacturing sector should prioritize meaningful inclusion over tokenism. This includes providing targeted capacity-building programs for female directors to enhance their contributions and influence in strategic decision-making. Firms should also adopt transparent and merit-based criteria for board appointments to ensure that diversity initiatives do not compromise competence.

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