

Impact of Corporate Governance on Voluntary Disclosure of Nigerian Listed Industrial Goods Companies

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DOI: <https://doi.org/10.62154/9tqj6j73>

Abstract

This study investigates the impact of corporate governance on voluntary disclosure of Nigerian listed industrial goods companies. Expo-facto was employed as the study's research design. For a period of fifteen (15) years, from 2007 to 2021, the study used data from secondary sources included in the yearly reports and accounts of the listed manufacturers of industrial goods. The population of the study consisted of thirteen (13) industrial products companies that are listed on the Nigerian stock exchange. As of December 31, 2021, a sample of 10 Nigerian industrial goods businesses that are publicly traded was used. Additionally, regression using Ordinary List Square (OLS) was used to analyze the data. The findings indicate that Board Independence, Board Gender, Board Experience, and Board management ownership and chief executive officer duality have statistically significant and favorable effects on the voluntary disclosure of listed Nigerian industrial goods companies. However, it was discovered that there is statistically no positive link between VLD and any of the study's explanatory variables, with the exception of BEXP and BGND. According to the study's findings, improving corporate governance systems can encourage voluntary disclosure, which can increase corporate transparency and boost corporate accountability for Nigerian manufacturers of industrial goods. The results of this study are also helpful for market participants, such as investors, regulators, and others, in the Nigerian capital markets.

Keywords: Corporate Governance, Voluntary Disclosure, Board Independence, Industrial Goods, Nigeria.

Introduction

In the 1990s, the majority of top management ignored the significance of corporate governance to financial reporting disclosures. However, following a spate of corporate failures in developed and developing countries in the early 2000s, researchers are now more interested in the mechanisms of corporate governance and their impacts on the company (Wan Zanani, Shahnaz, & Nurasyikin, 2008). Indeed, the sudden collapse of important, long-standing companies like Enron, WorldCom, or Parmalat as well as significant restatements of financial statements at Shell, Xerox, Ahold, and numerous others have shaken not only the public's confidence in financial reporting but also that of the financial system as a whole (Berndt & Leibfried, 2007).

Because of the corporate failures, financial reporting is now a problem on a global scale. Today, financial reporting is seen as a crucial part of leading a firm in accordance with sound corporate governance principles rather than a low-priority task of financial record keeping. It is a mechanism by which all parties involved in the success of the company (the stakeholders) guarantee that managers and other insiders act in the stakeholders' best interests. The South Sea bubble, which occurred in the 1700s and transformed company law and practices in England, was the first well-documented corporate failure in the United Kingdom (Borgia, 2005).

Insufficient financial disclosure was also a contributing factor in the recent financial crisis, which, according to Borgia (2005), started in East Asia before quickly spreading to Russia, Brazil, and other regions of the world. Dissanayake et al. (2020) hypothesized that few businesses provide information on child coerced and required labor. Similar to this, Cai et al. (2017) found that certain listed corporations continue to provide less CSR-related data than their competitors. The Cadbury Report (1992) asserts that one of the main obstacles to the flow of crucial information is the risk of opportunism inherent to the manager's power in the company, which is an incomplete or distorted disclosure of information to deceive or otherwise confuse the public and shareholders. For instance, when investors are unable to differentiate between reliable and unreliable information, they will value both equally (Healy and Papelu, 2001). Also, Lundholm and Van Winkle (2006), as cited in Okpara (2009), argued that the corporate failure issue is regarded to be solved by a credible disclosure, which comprises both compulsory and voluntary disclosure.

The phrase "voluntary disclosure" (VD) refers to a company's management's independent decision to provide additional financial, non-financial, environmental, and other relevant information deemed significant to the decision-making needs of annual report readers. The voluntary release of financial and non-financial information that a standard-setting accounting authority would not require enterprises to record is known as voluntary disclosure (Scaltrito, 2016). Accounting disclosure is highly valued by stakeholders because it provides them with the information they need to reduce uncertainty and help them make wise financial and economic decisions.

The need for optional disclosures arises from the requirement that financial reports be able to satisfy the needs of the various types of users and serve as a basis for investment decisions by investors and other stakeholders.

The sudden demise of a number of well-known and important companies in Nigeria and elsewhere in the world has called into question the confidence of stakeholders in the information provided by corporate organizations. By establishing sound corporate governance systems, financial information disclosures will need to be improved as a result of the widespread failure of business entities brought on by inadequate disclosures. Empirical investigations show that Nigerian enterprises' accounting records have consistently been found to be lacking (Wallace, 1988; Umoren, 2010).

According to Adeyemi and Fagbemi (2010) in Chima (2012), poor financial reporting and poor corporate governance were factors in the demise of a number of Nigerian banks,

including Lever Brothers (now Unilever plc), African Petroleum, Cadbury Nigeria plc, and a few others. According to CBN Codes (2006), corporate failures in firms that had previously enjoyed a high reputation have received several criticisms and are often attributed to ineffective corporate governance. SEC (2007) noted that ineffective corporate governance practices have been linked to almost all of the recorded incidents of corporate failure on a local and global level. To meet their needs on a worldwide scale, users of corporate information have expanded their desire for publicly available corporate transparency. Such disclosures, however, infrequently meet such needs because of the knowledge asymmetry between managers and owners as well as other stakeholders. The management are likely to utilize the knowledge at their disposal to harm the owners in order to advance their own interests. As a result, the gap between what people expect and what really emerges has always been wider. The disclosure gap is what's known as this.

By empirically analyzing the effect corporate governance has on voluntary disclosures of Listed Industrial Goods Companies in Nigeria, this research adds to the corpus of knowledge on corporate governance. The hypothesis that Nigerian companies will improve corporate voluntary information disclosures and increase the credibility of annual reports' financial reporting served as the inspiration for the study. The amount of information that listed industrial products businesses in Nigeria voluntarily released was also examined as part of the study using a pre- and post-analysis technique.

Research Objectives

The primary objective of this study is to examine the impact of corporate governance on voluntary disclosures of Listed Industrial goods companies in Nigeria. The specific objectives are to:

- Examine the impact of board independence on voluntary disclosures of Listed Industrial goods companies in Nigeria;
- Determine the impact of board gender on voluntary disclosures of Listed Industrial goods companies in Nigeria;
- Find-out the impact of board expertise on voluntary disclosures of Listed Industrial goods companies in Nigeria;
- Investigate the impact of chief executive officer duality on voluntary disclosures of Listed Industrial goods companies in Nigeria;
- Examine the impact of board non-independence on voluntary disclosures of Listed Industrial goods companies in Nigeria.

Research Questions

Based on the aforementioned problems, it is pertinent to ask what is the impact of corporate governance on voluntary disclosure of listed industrial goods companies in Nigeria? The specific research questions are as follows:

- What is the impact of board independence on voluntary disclosures of Listed Industrial goods companies in Nigeria?
- Does board gender affect voluntary disclosures of Listed Industrial goods companies in Nigeria?
- To what extent board expertise influence voluntary disclosures of Listed Industrial goods companies in Nigeria?
- How does chief executive officer duality impact on voluntary disclosures of Listed Industrial goods companies in Nigeria?
- What is the impact of board non-independence on voluntary disclosures of Listed Industrial goods companies in Nigeria?

Research Hypotheses

In line with the stated objectives, the following hypotheses are formulated in null form:

H₀₁: Board independence has no significant impact on voluntary disclosures of Listed Industrial goods companies in Nigeria;

H₀₂: There is no significant relationship between board gender and voluntary disclosures of Listed Industrial goods companies in Nigeria;

H₀₃: Board expertise has no significant impact on voluntary disclosures of Listed Industrial goods companies in Nigeria;

H₀₄: There is no significant relationship between chief executive officer duality and voluntary disclosures of Listed Industrial goods companies in Nigeria;

H₀₅: Board non-independence has no significant impact on voluntary disclosures of Listed Industrial goods companies in Nigeria;

Literature Review

Concept of Corporate Governance

Regulators and capital market participants all across the world are addressing corporate governance as a critical issue. Corporate governance is defined in a variety of ways. These definitions can broadly be divided into two categories: shareholder-oriented definitions, which is regarding a company's obligation to its shareholders, and stakeholder-oriented definitions, which focus on corporate accountability to stakeholders. According to Keasey, Thompson, and Wright (2005), there are various ways to understand the phrase "corporate governance," and different disciplines and methodologies are used to analyze it. For instance, described as "the system of checks and balances, both internal and external to corporations, which ensures businesses fulfill their obligations to all of their stakeholders and act responsibly toward society in all facets of their economic activity," corporate governance is defined by Solomon (2007, p. 14).

There hasn't been much study done on CG disclosure in emerging nations. However, since the 1980s, research on numerous African nations has started to focus more in light of the challenges posed by various political systems, cultures, economic structures, and

globalization on the notions of corporate governance. Previous studies have demonstrated that the issue of corporate disclosure has both skewed and damaged financial markets (Yakasi, 2001; Ahunwan, 2002; Okike, 2004). Listed firms have been studied empirically using various disclosure criteria.

The relationship between management ownership, corporate governance, and voluntary disclosure of 374 USA corporations in the year 2000 is evaluated by Baek, Johnson, and Kim (2009). The 98-item voluntary disclosure check list was employed. According to the results of multivariate (OLS) analysis, there is a bad link between managerial ownership level and discretionary disclosure level for enterprises with low managerial ownership level. Additionally, companies with a large proportion of outside directors are more likely to provide information about management and board processes. The analysis discovers a positive and significant association between voluntary disclosure and institutional share ownership, leverage, regulation, board composition, and block ownership.

Hassan (2011), examines corporate governance practices in emerging economies reference to 95 UAE companies in 2008. Voluntary disclosure indexes of 42 items were used. The results of descriptive, ANOVA and t-test shows that there are significant differences between the two sectors for management, transparency and the total corporate governance score. The ANOVA test shows that there is insignificant difference between the two sectors for ownership structure/ investors' right.

In Nigeria, Enache and Parbonetti (2011), studied the connection between corporate governance and the voluntarily disclosed information of Biotechnology companies from 2005 to 2009. 30 voluntary disclosure items were used. Board composition, leverage, and profitability have a positive and substantial link with voluntary disclosure, according to the findings of univariate and multivariate research.

Hassan (2013) investigates the relationship between corporate governance characteristics and voluntary disclosure of 98 (53 financial and 42 non-financial businesses) UAE listed corporations in 2008. Board committee and external auditor were shown to be positively and significantly correlated with the level of voluntary disclosure in the study, which included 29 voluntary disclosure items. While CEO dualism and CEO authority are negatively and significantly correlated with the extent of voluntary disclosure, board size, leverage, and business scale are positive and negligible factors. The analysis demonstrates that the amount of voluntary disclosure of listed corporations in the UAE is negative but minor with respect to foreign ownership.

Damagun and Chima (2013) assess the impact of corporate governance on voluntary information disclosures of quoted firms in Nigeria. 25 voluntary disclosure check list items in the areas of financial, non-financial, and strategic information disclosures are used, and they are applied to a sample of 35 quoted firms out of 219 firms from 1999 to 2009. The results of multiple regression show that board size, profitability, and firm size are favorably but insignificantly connected with the amount of voluntary information disclosure made by listed companies in Nigeria. When compared to other variables (such as board composition

and director share holdings), the voluntary information disclosure level of listed firms in Nigeria is inversely connected and insignificant.

Yau M. Damagum and Emmanuel I.b. Chima (2013) study the relationship between corporate governance and voluntary information disclosures of listed firms in Nigeria. Using a disclosure checklist created by the researcher. Multiple regression, of the 35 listed firms from 1999 to 2009 were put to the test. The outcome shows that corporate governance has a major impact on the financial reporting of listed companies in Nigeria and that voluntary disclosure has increased dramatically after corporate governance standards were implemented there.

Junaidu Muhammad Kurawa & Ali Shariff Kabara (2014) examined Corporate Governance and Voluntary Disclosure. They examine procedures among 7 listed companies in the downstream sector of the Nigerian petroleum industry from 2001 to 2010 using the voluntary disclosure checklist created by Meek et al. (1995). based on the 24-item Disclosure Index that Meek et al. (1995) adopted. The data's outcome was examined using the STATA package's descriptive statistics and regression analysis. Analysis demonstrates a considerable positive correlation between the level of voluntary disclosure and ownership concentration and board composition as two of the key factors of corporate governance. However, management ownership and CEO duality suggest a bad association with the sample firm's voluntary disclosure.

Muhammed, Hauwau Dalhat (2014) examine the effect of Corporate Governance on Earnings Quality of listed Manufacturing companies in Nigeria using 25 companies, or 45% of the total workforce (all 56 manufacturing companies listed on the Nigerian Stock Exchange as of December 31, 2011). Multiple regression and the correlation research design were used as the study design and method of data analysis. Results reveals that institutional shareholding, audit committee, managerial shareholders and earnings quality, a negatively association emerged and it has been supported statistically at 5%, 1%, 5% level of significant respectively. While board composition is positively and significantly influencing earnings quality.

Ala' Hussein Albawwat and Mohamad Yazis Ali Basah (2015) look on the impact of corporate governance and ownership structure on voluntary disclosure in interim financial reports released by Jordanian companies listed on the ASE. On the data from 72 chosen ASE listed firms for the years 2009 to 2013, the dynamic panel system GMM estimation was used. According to the findings, government ownership has a big impact on voluntary disclosure. Contrary to expectations, the audit committee, the number of shareholders, the size of the board, the frequency of board meetings, and the degrees of foreign and block-holder ownership all exhibit negligible correlations.

Voluntary Disclosure

Nearly all corporate governance laws and codes include disclosure at their core. One of the corporate governance standards outlined by the Organization for Economic Cooperation and Development (OECD) is, for instance, disclosure and transparency. This principle states

that all material information about the company, including financial and operating performance, ownership and voting rights, related party transactions, board composition and remuneration policy, human resources and stakeholders, risk management, and governance structure, must be disclosed promptly and accurately (OECD 2004).

Marston and Leow (1998), voluntary information is that which is not required by laws or rules. Additionally, according to Meek, Roberts, and Gray (1995), voluntary disclosure is defined as disclosure that goes above and beyond what is required and is a free decision on the part of the management of the company to offer accounting and other information that is thought to be pertinent to the needs of decision-makers who read annual reports.

The FASB defines voluntary disclosure as information that is largely not included in financial statements but is nonetheless not expressly required by accounting rules or standards (FASB 2001).

According to Garcia and Monterrey (1997), voluntary disclosure refers to information that businesses disclose on their own initiative and in excess of the minimal standards set by accounting regulations.

Research Framework

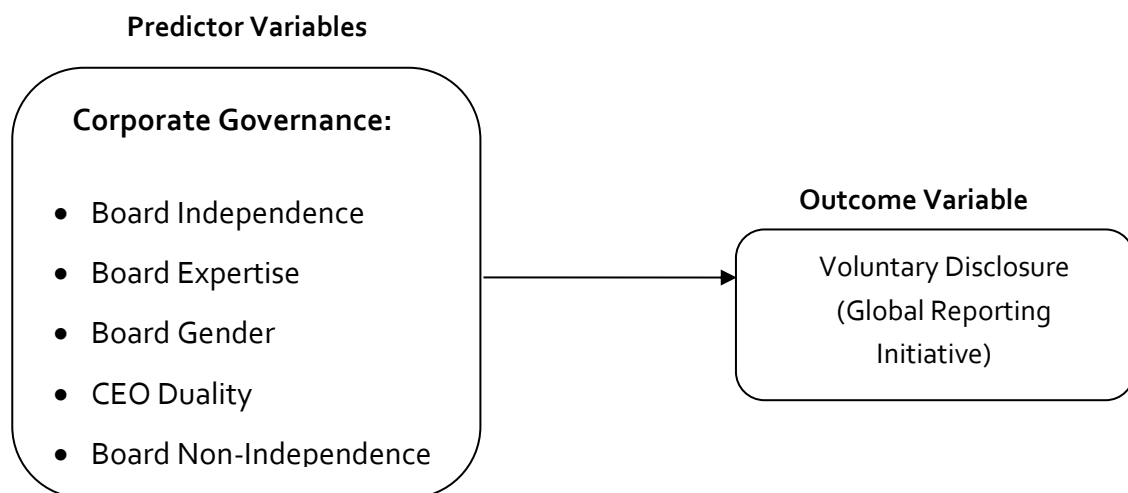


Figure 1: Conceptualization of Variables

Source: Compiled by the Researcher Based on Literature

Empirical Review

Faishal, Adani Farras, and Faisal (2020) looked at the impact of voluntary disclosure and effective company governance on information asymmetry. 87 firms from the Indonesian Stock Exchange, including trading, investment, and services organizations, sampled between 2016 and 2018. The study's findings indicate that effective company governance and voluntary disclosure have a favorable impact on information asymmetry.

Fitra R.C and Gunadi Y (2020) study the impacts of corporate governance attributes on voluntary disclosures of companies listed on Indonesia Stock Exchange (IDX). Out of the

450 firms that were listed on the Indonesia Stock Exchange (IDX) in 2012, a sample of 100 was chosen at random. Multiple linear regression was employed as the independent variable to measure voluntary disclosures, which are measured by the disclosure index. According to the findings, managerial ownership is not a reliable indicator of voluntary disclosures.

Using Panel Least Square (PLS) and Pearson coefficient correlation, Adaobi Geraldine Okudo and Nestor Ndubuisi Amahalu (2021) examined the corporate governance and carbon disclosure policies of 18 listed industrial enterprises in Nigeria between 2011 and 2020. The result shows that ownership concentration, board gender diversity, and sustainability committee each have a significant positive link with carbon emission disclosure of listed manufacturing firms in Nigeria, at a level of significance of 5%.

Gul and Leung (2004), disclosure is a clear necessity for an equity market to operate more efficiently. Better disclosure is seen to be linked to increased transparency and a narrowing of the knowledge gap between the company and outside investors, which raises firm value (Lobo & Zhou 2001). As a result, the relationship between CG and the volume of voluntary disclosure is covered in this subsection. In corporate governance, the make-up of the board of directors is a key issue.

Theories Governance contends that the makeup of the board of directors affects its effectiveness and decisions. In fact, a diverse composition enables the board to incorporate various professional and cognitive abilities. According to some writers, homogenous groups are more prone to repeat assessment errors than heterogeneous groups because they answer problems in a consistent manner (Nekhili, Nagati, Chtioui & Nekhili, 2017; Amahalu, Okoye & Obi, 2018). As a result, diversity is valued as a source of profit for the business. The majority of earlier studies demonstrate a favorable effect of gender diversity on business success financially and socially (CSP). However, the majority of studies (Naveed, Voinea, Ali, Rauf, and Fratostiteanu, 2021; Romano, Cirillo, Favino, and Netti, 2020) suggest that gender diversity on the board is likely to have a beneficial impact on corporate social performance.

Zaid, Seaman, Mauricio, Al-Haddad and Marashdeh (2020) examined the impact of female directors on the financial performance of family and nonfamily Jordanian firms. A sample of 103 Jordanian public companies that were listed on the Amman Stock Exchange between 2009 and 2015 was chosen. The study used panel data methods and a quantitative approach. Ordinary Least Square Regression was used for the data analysis. Tobin's Q and ROA were used to gauge financial success.

The Taiwanese experience from 2007 to 2019 was used by Wang (2020) to analyze the effects of gender diversity on a firm's performance and corporate governance performance. Taiwanese research suggests that increased board gender diversity may not improve financial and governance effectiveness. Only the percentage of female independent directors is discovered to have a significantly positive correlation with a firm's performance, supporting past results that independent directors are better suited to carry out their monitoring role and as a result, contribute to performance.

Theoretical Framework

Theoretical frameworks, such as agency theory, stakeholder theory, and stewardship theory, have been used to explain and assess corporate governance methods. But the goals of this study make use of stakeholder theory.

Stakeholder Theory

In contrast to agency theory, which only focuses on the relationship between managers (the agent) and shareholders (the principal), stakeholder theory investigates how managers engage with all stakeholders, including shareholders, employees, customers, suppliers, and the government. The organization involves a variety of stakeholders, and each one is entitled to payment for their contributions, according to stakeholder theory (Crowther & Jatana 2005). There are two categories of stakeholders: the primary stakeholder group, which includes those who are essential to the existence of the business, such as shareholders, employees, suppliers, investors, and the government; and the secondary stakeholder group.

The second group of stakeholders, known as a secondary stakeholder group, consists of individuals who, while not essential to the company's survival, still have an influence over or are affected by it, such as the media (Rizk, 2006). According to this notion, managers should consider the importance of every group of stakeholders and make an effort to accommodate their requirements. To maximize benefits, managers must operate on behalf of all stakeholders, not just shareholders. Shareholders, who are the main stakeholder, profit as a result over time. But there are several perspectives on this theory. One the one hand, agency theory supporter Sternberg (1997) criticizes stakeholder theory on the basis of a few arguments. According to the author, both corporate governance and business are incompatible with this idea. It disqualifies the corporate goal of maximizing owner value over the long term. The theory also encourages managers to break their earlier duties to owners and suggests that a corporation should be held accountable to everyone instead of just its owners. Sternberg also suggests that balancing stakeholder benefits is an unrealistic goal that is unjustifiable. Stakeholder theory also compromises accountability and private property. Turnbull (1997), on the other hand, notes that there are some empirical findings that refute Sternberg's first two critiques. Turnbull contends that stakeholder ties, on the other hand, can legitimize and safeguard private property, agency, and wealth. According to Rowley (1997), businesses must meet the demands of several stakeholders at once rather than responding to each one separately. Managers need take into account a number of factors, including information cost and degree of competition, in order to address this issue. The decision to disclose information will also depend on the stakeholder's level of power (Mitchell, Agle, and Wood 1997). Managers must therefore strike a balance between the information needs of the stakeholders, or make trade-offs. The many forms of voluntary disclosure that may be used to meet the information demands of stakeholders should be taken into consideration when addressing the voluntary disclosure practice.

Methodology and Model Specification

In this section, Expo-factor was used as the research design for the investigation. This is because it provides a means for the extraction of quantitative data from the annual reports and financial statements of the listed industrial goods businesses in Nigeria. The availability and consistency of data, along with the sub-sector's huge importance to both the manufacturing industry and the general economy, were factors that contributed to the usage of listed industrial goods in the Nigerian manufacturing sector. The sampling method for the investigation was population filter sampling. And from a total of 13 firms as of December 31, 2021, a sample of ten (10) listed industrial goods companies was chosen and utilised. To choose only companies that are listed on the NSE, a filter was applied.

Based on the assumption that the data were gathered through the annual reports and accounts of the sampled listed industrial products businesses during the study period, this study employed data from secondary sources. The multiple regression model was used as the data analysis technique for the purposes of this investigation. Its expansion to the Ordinary Least Square (OLS) regression model gives it greater resilience and dependability when attempting to forecast the values of two or more additional variables.

Table 1: Operationalization of the Variables Measured and Used in the Study

Variables Name	Acronym	Nature of variable	Measurement	Source(s)	A Priori Sign
Voluntary Disclosure	(VLD)	Dependent Variable (DV)	Measured using Global Reporting Initiative (GRI).	GRI 4 (2016)	
Board Independence	BIND	Independent Variable	Percent of non-executive directors within the board's total number of directors.	Bala et al. (2023)	+
Board Expertise	BEXP	Independent Variable	Percent of directors with professional expertise in accounting and finance within the board's total number of directors.	Bala et al. (2023)	+
Board Gender	BGND	Independent Variable	Percent of female directors within the board's total number of directors.	(Amahalu, Okoye, Obi & Iliemena, 2019)	+
Board Non-independence	BNI	Independent Variable	Percentage of manager's shares compared to the firm total shareholdings.	Shehu (2013)	+
Chief Executive Officer Duality	CEDT	Independent Variable	Assigning a dummy value of "1" if the CEO occupies dual position and "0" if otherwise.	(Amahalu, Okoye, Obi & Iliemena, 2019)	+

Source: Compiled by the Researcher, 2023.

Model Specification

The numerous null hypotheses and variables are combined into a functional relation in order to test the study's hypotheses and examine the impact of corporate governance on voluntary disclosure of listed industrial goods companies in Nigeria. Thus, the following is an empirical specification and description of the econometric model:

$$VLD_{it} = \alpha + \beta_1 BIND_{it} + \beta_2 BEXP_{it} + \beta_3 BGND_{it} + \beta_4 BNI_{it} + \beta_5 CEDT_{it} + e_{it} \dots\dots\dots(i)$$

Where:

i = "firm", t = "time", VLD= Voluntary Disclosure, α = The intercept, $\beta_1 - \beta_4$ = Coefficients of the explanatory variables, BIND= Board Independence, BEXP = Board Expertise, BGND = Board Gender, BNI = Board Non-independence, CEDT = Chief Executive Officer Duality, e_{it} = Disturbance or error term.

Results and Discussion

This section deals with the presentation, analysis and interpretation of the data used for the study.

Descriptive Statistics

Information on the study's descriptive statistics is covered in this section. The study's independent and dependent variables, means, standard deviations, minimum and maximum values, and the number of observations are all described.

Table 2: Descriptive Statistics

Variable	Minimum	Maximum	Mean	Std. Deviation	Observation
VLD	0.2500	0.5500	0.3847	0.0903	150
BIND	0.1500	0.4000	0.2623	0.0511	150
BEXP	0.2000	0.7500	0.4538	0.1332	150
BGND	0.2000	0.5000	0.3780	0.1024	150
BNI	0.0800	0.1900	0.1039	0.0261	150
CEDT	0	1	0.4933	0.5016	150

Source: STATA Output Results (Version 16.0), 2023.

From table 2, With a corresponding mean and standard deviation of 0.3847 and 0.0903, it displays the voluntary disclosure (VLD) range's minimum and maximum values as 0.25 and 0.55, respectively. This means that the minimum level of VLD of listed companies in Nigeria was 25% signifying low level compliance while the maximum level of VLD was 55% by the listed companies in Nigeria. It further signifies that the average level of VLD of the listed companies in Nigeria was found to be 39% approximately. Therefore, it implies that the individual listed companies in Nigeria have an average VLD of 39% when the study was conducted and the actual number of variations (changes) from the average (Mean) is 9% approximately.

In respect of board independence (BIND), It displays 0.1500 and 0.4000 as the minimum and highest value respectively. It also shows a mean and standard deviation value of 0.2623 and 0.0511 respectively. This signifies that the BIND of listed companies in Nigeria has a minimum of 15% and the maximum BIND during the period of the study was 40% approximately. Indeed, the average BIND for the listed companies was 26% approximately while the variation or changes (Standard Deviation) from the average was found to be 5% approximately. This implies that the deviation from the actual mean is fitted and within the acceptable range.

Similarly, Minimum and maximum values for BEXP are 0.2000 and 0.7500, respectively. Once more, the data shows that the mean and standard deviation are, respectively, 0.4538 and 0.1332. This indicates that board expertise ranges between 20% and almost 75%, with a mean value of 45% and a standard deviation of 13%, respectively. It therefore, implies that the listed companies in Nigeria have most of their board members possessing requisite accounting and financial expertise which can encourage them to embark on voluntary information disclosure.

By and large, the minimum and maximum values for board gender were found to be 0.2000 and 0.5000 respectively while the mean and standard deviation were approximately found to be 0.3780 and 0.1024 respectively. This signifies that the average board gender of the listed companies in Nigeria is approximately 38%. Indeed, the minimum and maximum value of the BGND signifies a 20% and 50% representation for the listed companies in Nigeria. It also implies a change from the actual average value of 10% approximately during the period of the study.

Finally, the minimum and maximum numbers for board non-independence, which is determined by the percentage of managers' shareholdings, are 0.0800 and 0.1900. The average value of 0.1039 and the standard deviation value of 0.0261 come next. This means that management ownership has a minimum value of 8% and a maximum value of 19%. During that time, the listed businesses' average board non-independence was roughly 10.4%.

Table 3: Normality Test

Variable	W	V	Z	Prob>Z
VLD	0.96525	4.043	3.167	0.00077
BIND	0.99624	4.438	-1.874	0.96952
BEXP	0.97561	2.838	2.365	0.00902
BGND	0.97608	2.783	2.321	0.01015
BNI	0.87236	14.851	6.117	0.00000
CDT	0.99937	0.073	-5.925	1.00000

Source: STATA Output Results (Version 16.0), 2023.

The Shapiro Wilk (W) test for normal data uses the null hypothesis concept to examine residuals that result from populations that are normally distributed. The test's null

hypothesis is that the data are normally distributed. Because all of the P-values are significant at the 5% level of significance with the exception of corporate leverage and corporate age, Table 3 shows that the data from all of the study's residuals did not follow the canon of normal distribution and are therefore not normally distributed. Therefore, at a 5% level of significance, the null hypothesis—that the data are regularly distributed—is rejected. By implication, the data did not follow the normal distribution axiom. Therefore, it is covered by the Gaussian theory of (1929) and Shao (2003), which suggest that the abnormality of the data does not in any way affect the inferential estimation of the study.

Table 4: Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)
VLD (1)	1.0000					
BIND (2)	-0.0002 0.9981	1.0000				
BEXP (3)	0.0726 0.3770	-0.1793* 0.0281	1.0000			
BGND (4)	0.4135* 0.0000	0.0874 0.2875	0.1929* 0.0180	1.0000		
BNI (5)	-0.4640* 0.0000	-0.0642 0.4350	-0.0983 0.2314	-0.3916* 0.00000	1.0000	
CEDT (6)	-0.2422* 0.0028	-0.0818 0.3197	-0.1267 0.1224	-0.3360* 0.0000	0.1737* 0.0335	1.0000

Source: STATA Output Results (Version 16.0), 2023.

With reference to table 4 depicted earlier, it indicates the results of the correlation matrix between "Corporate Governance (BIND, BEXP, BGND, MGTW and CEDT) which are jointly found to be (-0.0002, 0.0726, 0.4135, -0.4640 and -0.2422) and voluntary disclosure (VLD) of listed industrial goods companies in Nigeria. The table 4 also indicates that there is statistical negative correlation between VLD and all the explanatory variables of the study except in the case of BEXP and BGND which shows positive correlations. Apart from the negative and positive patterns of the correlation amongst the variables, it signifies that the explanatory variables are perfectly correlated with VLD at a value of 1%, 7%, 41%, 46% and 24% approximately respectively. By implication, none of the explanatory variables have a correlation value with VLD which is greater than or equal to 50% (i.e. 50% $\geq$). This further suggests that there is absence of high correlation across all of the study's explanatory variables. Therefore, the tolerance and Variance Inflation Factor (VIF) values are adequate to demonstrate that there are no serial correlations between the study's variables.

Table 5: Summary Regression Results

Variables	Coefficients	T – Values	P – Values
Constant	-0.345225	-0.530	0.594
BIND	-0.698943	-0.840	0.803
BEXP	-0.012206	-0.250	0.803
BGND	1.824165	3.270	0.001
BNI	-1.048172	-3.960	0.000
CEDT	-0.007747	-0.560	0.573
R ²			0.3332
Adjusted R ²			0.3003
F – Statistics			10.14
F – Sig.			0.0000

Source: STATA Output Results (Version 16.0), 2023.

From the results depicted in table 4, it shows the value for R-squared and the adjusted R-squared as 0.3332 and 0.3003 respectively. This signifies that the coefficient of determination was 30.03% which is equivalent to 30% approximately. This merely suggests that the independent variables BIND, BEXP, BGND, BNI, and CEDT collectively explain 33% of the cumulative explanatory power, or total degree of changes in the dependent variable (voluntary disclosure). The findings also show that other factors (Corporate Governance) not included in the accounting econometric model of the study influence or are responsible for the remaining 70% of the total changes in voluntary disclosure of listed industrial goods companies. The F- significance value of 0.0000, which indicates that it is significant at the 1% level of significance, confirms this. It's interesting to note that the model fitness test, as measured by F statistics, yielded a value of 10.14. This signifies that the model is good, adequate and well-fitted for the study as it passed the minimum bench mark under the "rule-of-thumb-of-two (2)" for model fitness. It therefore, implies that the explanatory variables given by board independence, board expertise, board gender, board non-independence and CEO duality are jointly and properly selected, integrated and applied to the research.

Conclusion and Recommendations

The researcher concludes, that managerial ownership, chief executive officer duality, board independence, board gender, and board expertise all had statistically significant positive effects on the voluntary disclosure of listed industrial goods companies in Nigeria. With the exception of board expertise and board gender, which have positive links with voluntary disclosure, all of the study's explanatory variables were shown to have statistically negative associations with it. It was finally discovered that corporate governance is an effective technique for influencing the voluntary disclosure of listed industrial goods enterprises in Nigeria.

Recommendations

Base on the study's findings, the following recommendations are made:

- i. The management of industrial products businesses should adhere to the Code of Corporate Governance more closely since it has an impact on VD in order to maintain the accuracy of their financial reporting. In order for businesses to properly disclose financial information freely, it is also recommended that the relevant authorities, such as the CAC and SEC, make sure they follow all rules and regulations governing financial reporting;
- ii. The shareholders of the Nigerian industrial products companies should ensure that the majority of the board members are made up of competent and experienced non-executive directors who are independent of managers. Additionally, to increase the monitoring of the quality of financial disclosure, this will unavoidably increase the use of voluntary disclosure, notably in the audit committee;
- iii. In order to boost women's participation and offer them a sense of belonging, companies in the Nigerian industrial products sector should encourage board gender to a fair amount. This would increase the firm's reputation, the value of its shares, and its access to financing.

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