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INFORMATION ASYMMETRY AND NON-FINANCIAL INFORMATION DISCLOSURE QUALITY IN SELECTED PUBLIC LIABILITY COMPANIES IN NIGERIA

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Abstract

Information disclosure is supposed to be the channel that connects the shareholders with the managers according to agency assumption. However, this connection is strained when the credibility of the information disclosed by companies becomes questionable, especially when it relates to non-financial information such as; environmental, social, and governance disclosure that are voluntary in a country like Nigeria. This study investigated the effect of information asymmetry on quality of non-financial disclosed by publicly listed companies in Nigeria. The study is quantitative research; so, the longitudinal research design was adopted. The study focused on ten companies listed on the Nigeria Exchange Group purposively selected from the consumer goods sector. Data were collected from the annual reports of the targeted companies, for a coverage period of 2013 to 2022. Data collected were analysed using descriptive statistics and panel data regression analyses. The findings revealed that information asymmetry have positive significant effect on social disclosure of public liability companies in Nigeria. It was also found that its effect on governance was positive but, insignificant. It however also showed significant and positive effect on environmental disclosure. The study concluded that information asymmetry can be reduced when full disclosure of non-financial information particularly the Environmental Social Governance (ESG) disclosure is maintained; thereby leading to reduction in agency problem. The study recommends that companies' shareholders should glamour for more robust non-financial disclosure to reduce information asymmetry problem and gain global relevance and acceptability for sustainable development.

Introduction

Information disclosure has become a highly relevant issue in management and accounting for both investors and stakeholders in today's rapidly evolving global business landscape. This is because of the increased geared towards corporate transparency environments, globalization, and the advancement of information technologies (Serrasqueiro & Mineiro 2018). Furthermore, because of multiple accounting scandals and the most recent financial crisis surrounding disclosure, stakeholders of all stripes anticipate transparency and accountability in their companies' disclosures (Fijałkowska & Zyznarska-Dworczak 2018; Elshandidy et al., 2018). The quantity and quality of information disclosed is increasingly demanded by the financial markets, and accurate, substantial, and pertinent information is now essential for the smooth operations of these markets.

Early emphasis on the amount and reliability of financial and accounting information disclosed by companies has been steadily complemented by a focus on the effects of non-financial disclosure (Egginton & McBrayer, 2019). Al-Shaer (2020) describe non-financial disclosure as the diffusion of financial, social and environmental information as part of the dialogue between a firm and its stakeholders. This expectation has grown in popularity, that it has engaged external audiences that are responsible for activities that is expected to enhance information environment and access to finance for companies (Brogi et al., 2022).

Stakeholders are looking into how disclosing non-financial information might help reduce the risks that come with incomplete or missing information in market transactions (Gao, et al., 2016). As part of the

firms' overall strategy, this kind of information actually provides extra insights regarding projects relating to all areas and stakeholders, complementing financial transparency (Chen & Roberts, 2010). Non-financial disclosure targets a wider range of stakeholders and focuses on the activities done by the organization with respect to several stakeholder categories, whereas financial information primarily targets the investment community and focuses on financial data (Du & Yu, 2020). The issue is that, it is vital to comprehend what motivates non-financial disclosure procedures in publicly traded limited liability firms in Nigeria. Although the significance of non-financial disclosure is acknowledged, little is known about the degree to which these businesses report in this manner, their reasons for doing so, and the effects of corporate organization and information asymmetry.

It is crucial for organizations to lessen the legitimacy gap and minimize dangers. The theory states that in order to ensure accountability, an organization's senior management must identify the legitimacy gap, implement the required social behaviors, and then disclose its operations to stakeholders (Venturelli et al. 2019). Stakeholders looking to analyze non-financial disclosure expect to learn about a company's exposure to and management of opportunities and risks related to climate change, scarcity of natural resources, pollution, waste, and other environmental factors, as well as the company's impact on the environment and climate (Deloitte 2021).

Investors and other stakeholders should be given sufficient transparency regarding risk exposure and a risk and opportunity management strategy through

non-financial disclosure. Incoherent risk disclosures can influence investment decision-making and result in a loss burden for investors. Investors seek out relevant and reliable risk information to ascertain all risks faced by companies in their decision-making process (Tan et al. 2017). Non-financial disclosure has been regarded as a crucial component that lessens the issues associated with the asymmetric distribution of information among firms and financial markets by giving the markets more information about how the firm manages its operations, handles its stakeholders, and makes profits (Romero, Ruiz, & Fernandez-Feijoo, 2019).

Stakeholders looking to analyze non-financial disclosure expect to learn about a company's exposure and management of opportunities and risks related to climate change, scarcity of natural resources, pollution, waste, and other environmental factors, as well as the company's impact on the environment and climate (Deloitte 2021). The majority of the research done in this field to date has focused on the volume of information given (Shivaani et al. 2019) as opposed to the factors that influence this disclosure.

The Global Reporting Initiative (GRI) reports that by 2022, there will be a rising trend in the involvement of Asian corporations in climate reporting, based on data from a survey of six countries. Seventy per cent (70%) of the largest listed firms in Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam already provide climate-related statistics. Additionally, sixty-five per cent (65%) of the sampled Vietnamese companies have implemented GRI Standards (GRI, 2022). Since the 1900s, scholars worldwide, particularly those concerned with

environmental and social issues, have taken an interest in the growing body of research on CSR reports (Chand et al., 2022). Most studies have found a relationship between environmental and social disclosure, discover that Stockholder wealth rises when companies voluntarily report more financial and non-financial information (Alipour et al., 2019; Hirschi 2021).

Specifically, there has been a rise in the number of studies that investigate the relationship between voluntary environmental accounting information disclosure and accountability of businesses (Nguyen & Tran, 2019; Nguyen & To, 2020; Nguyen et al., 2020; Nguyen & Nguyen, 2020). Reported information is said to have value that is relevant for decision making by investors when stock price responds to accounting information, (Echobu, et al., 2021).

In the context of Nigeria, a country with a significant presence in the African economic landscape, the relevance of non-financial disclosure is accentuated. Nigeria's economic integration into the global economy and its commitments to sustainable development goals make non-financial reporting particularly important. Nigerian listed public liability companies operate in a diverse environment where they must balance the profit motive with ethical and social responsibilities. The effectiveness of non-financial disclosure in these companies is influenced by regulatory frameworks, market pressures, and corporate ideologies.

The factors driving the extent and motivations behind non-financial disclosure in Nigerian listed public liability companies, especially in the context of information asymmetry theory and corporate ideologies, require comprehensive investigation. This research work is hereby intended to

contribute to the study of the effect transparency in the non-financial disclosure of information and in the organizational performance, and hence in the reduction of information asymmetries, in the specific case and reality of the public organisations in Nigeria. Thus, the aim of this study is to investigate the effect of information asymmetry ideologies on non-financial information disclosure in public liability companies in Nigeria.

Literature Review

Theoretical Background

The information asymmetry theory was propounded in the 1970s by George Akerlof, Michael Spence and Joseph Stiglitz. The theory states that before a transaction takes place, one party (seller) possess more information than the other (buyer) (Berghet al. 2019). The question that comes to mind from this definition is; what happens when a party possess more information than another party especially when the transaction is economic in nature? What is likely to happen is that one party will take advantage of the knowledge gap and use the hidden information to his benefit at the detriment of the other party; this is referred to information asymmetry problem. The information asymmetry is largely viewed from the perspective of the seller having more information than the buyer.

In contrast, Dari-Mattiacci, et al. (2021) examined information asymmetry from the perspective of the buyer having more information which is more prominent in credit sale transactions. It was argued that information asymmetry problem occurs in the financial market because the borrower has much better information about his financial state than lender. The lender has difficulty knowing whether it is likely that the

borrower will default. This study attempted to reveal the linkage between the argument of information asymmetry problem to the assumption of the agency theory propounded by Jensen and Meckling (1976), that in the agency relationship, the agent is required to perform duties on behalf of the principal thereby protecting the sole interest of the principal. The conflict between the interest of the agent and the principal, results in situation where the agent go against the agency theory assumption thereby leading to agency problem.

The agency problem is heightened by the fact that the agent manages the affairs of the company which gives the agent opportunity to have access to more information about the company more than the principal that depends largely on the information provided by the agent. In relating the agency relationship to argument of information asymmetry theory from the perspective of Dari-Mattiacci, et al. (2021), the agent is the buyer, while the principal is the seller. Although the principal is the provider of capital that appoints the agent as managers, they will not be able to know whether the agent will default in the agency agreement (Akerlof, 1978).

Information asymmetry is considered as a critical ethical problem that may adversely affect financial market because when investors lack access to reliable information, they are at higher risk of making informed-decision that will yield higher returns (Lambert et al., 2012; Romito & Vurro, 2020). The increase in scope of information need to cover non-financial information disclosure, increased the complexity of reliability and access to full disclosure. It is been posited that information asymmetry problem can be solved in marketing

transactions, through the introduction of regulations, warranties, insurance, bottom-up efforts to inform customers of products and sellers' quality and reputation. In the same vein, information asymmetry problem can be resolved in the corporate environment, especially as it relates to non-financial disclosure when there are regulations guiding such disclosure. One of such regulation is the Global Reporting Initiative (GRI), and other regulations that guides non-financial disclosure.

Although the GRI is largely adopted in developed countries, some of the indices and evaluation criteria still fall under non-voluntary disclosure in most African economies, including Nigeria. This makes the possibilities of information asymmetry to be heightened in these countries. The proposition of options to solve information asymmetry problem is therefore relevant in Nigerian companies, especially the public liability, as attempt to determine its impact on the non-financial information disclosure components.

Conceptual Clarification and Hypotheses Statement

Non-Financial Information Disclosure Quality

Erkens et al. (2015) defines non-financial reporting as disclosure provided to outsiders of the organization on dimensions of performance other than the traditional assessment of financial performance from the shareholders and debt-holders' viewpoint. This definition includes, but is not limited to, items related to social and environmental accounting, CSR, and intellectual capital disclosed outside the financial statements. The function of communication through corporate reporting potentially mitigates agency issue that the corporate model

symbolizes. External parties are intended to be shown non-financial information in addition to financial information through corporate reporting. Integrating reporting on such matters in corporate reporting yields integrated reporting that best serves users of corporate reports (Humphrey et al. 2017; Maama & Mkhize 2020; Rezaee 2017). Corporate disclosure encompasses financial and non-financial information conveyed by formal and informal channels of communication (Gibbins et al., 1990, 1992).

Since the beginning of the 19th century, the industrial revolution has affected corporate reporting's focus when corporations started to be concerned about corporate social responsibility (CSR) of women's rights and social inequalities of their employees (Markota Vukić et al. 2018). The 1970s witnessed criticism toward negative impacts of corporations on the environmental and social aspects (Bruntland 1987). An awareness toward reporting non-financial information to develop the sustainability and to integrate economic and ecological considerations in decision making has emerged (Bruntland 1987). In the early 1990s, corporations have been reporting non-financial information to illustrate their commitment toward society by producing environmental, social and sustainability reports (Kolk 2003). Non-financial reporting has increased substantially since the publication of the first separate environmental reports in 1989 (Kolk 2004). According to a study conducted by KPMG (2002) 7 in 19 countries, an increase in non-financial reporting from 13% in 1993, to 17% in 1996, 24% in 1999, and 28% in 2002 is reported.

Information Asymmetry

Information asymmetry is a condition where differences in internal information

acquisition will affect the future of the relationship between management and investors. In order to identify opportunities offered by a company, it is required to objectively record the degree of information asymmetry (Evodila, 2020). Since information asymmetry is not a phenomenon that can be directly observed, it is thought to be a challenging endeavor (Abad et al., 2017). Higher reporting quality has been shown to lessen information asymmetry and, as a result, increase the effectiveness of the companies in capital markets (Al-Sakini, 2019). Specifically, there is a negative correlation that aligns with the dynamics of stock market returns between the presence of divergent investor perspectives and the quality of financial reporting (Abdel-Meguid, 2019). We discover that companies with initially poorer quality financial reporting typically have lower stock returns in the future. Second, lower quality financial reporting translates into less relevant information.

Loh et al. (2017) stated that the process of disseminating non-financial information to the public; this involves publishing an entity's economic, social, governance, and environmental activities in a way that is purposeful and deliberate. According to Mulya and Prabowo's (2018) study, a sustainability report's purpose is to convey a company's dedication to the economy. Silva and Cerqueira (2021) also note that this causes investors to share less information and to rely more on their own judgments, opposing viewpoints, and information from different private sources, which in turn causes arguments among current stock market users. Furthermore, we think that there is now a significant risk of financial statement distortion as well as implicit influence on end users' perceptions

and opinions when they rely on financial report information to make investment decisions (Danescu et al., 2021).

Information Asymmetry and Environmental Information Disclosure

The United Nations Commission on Sustainable Development (UNSD) and the International Federation of Accountants (IFAC) released recommendations for environmental accounting (EA) in 2001 and 2005, respectively, on which the Environmental Accounting Information is based (Nguyen & Tran, 2019). Since the 1970s, environmental law and practice have become increasingly important to governments, academic and the general public. Nonetheless, during the 1990s, businesses in wealthy nations have looked at and adopted environmental accounting. To help management make decisions about environmental operations, environmental accounting analyzes and quantifies environmental costs. According to Grey et al. (1995), Environmental Accounting Information Disclosure serves as a portal for businesses to disclose environmental accounting data about how they use resources and preserve the environment.

Resources, energy and water consumption, biodiversity, emissions, environmental complaint procedures, and other subjects are covered in the environmental information. One of the non-financial elements of an annual report, sustainability report, or corporate social responsibility (CSR) report is environmental information. Guidelines for the disclosure of both financial and non-financial information have been released by several international organizations. Publicly traded companies can prepare for information disclosure in annual reports with the assistance of the

International Accounting Standards Board (IASB), the Global Reporting Initiative (GRI), Directive 95/2014/EU, and the Financial Accounting Standards Board (FASB). International benchmarks for non-financial performance are set by GRI (Ismail et al., 2021). The publicly available data includes economic, environmental, human rights, and social issues in accordance with the GRI's principles (GRI, 2021).

H₀₁: Information asymmetry does not have significant effect on environmental information disclosure

Information Asymmetry and Social Information Disclosure

Reducing agency costs and information asymmetry through appropriate and purposeful Environmental Social Governance (ESG) disclosures can increase corporate value (Yu et al., 2018). A company's reputation can be enhanced through strategic ESG disclosure, which can change people's opinions of the business (Toms, 2002). Positive sentiments like these can significantly reduce the risk to a company's reputation (Heal, 2005). Another argument for such reporting is that it could help reduce transactional and operating risk since it fosters corporate transparency and builds confidence among a company's economic stakeholders. Qiu, et al. (2016) stated that companies with objectively disclosed social and environmental data are likely to have higher anticipated cash flow growth rates.

Furthermore, Cheng, et al. (2014) found that companies with more robust CSR-related disclosures have fewer unique financial constraints and find it simpler to obtain financing. According to Husted (2005), financial investments in social and environmental issues, along with their disclosure, are viable options that involve

managerial strategic and operational decisions. These choices can help reduce business risk by encouraging transparency and reducing the level of uncertainty and asymmetry. All things considered, these studies point to a relationship between increased business value, reduced financing costs, and higher profitability when it comes to ESG disclosure. According to Asemah, et al. (2013), competent operations and committed staff provide quality products. Workers that are part of an ethical workplace culture are more inclined to talk about it and show their commitment to the company. Menz (2010) found that, as a result, investing in CSR attracted employees with greater moral standards, commitment, and ambition.

Therefore, investors may view involvement in social and environmental activities as a managerial talent intended to build a reputation and achieve long-term objectives. Loyal customers gravitate toward goods and companies that care about the environment and society. Consumers are ready to pay extra for products with the "fair-trade" label. It is posited that when there is less information asymmetry, employees are more driven to work harder and create more, which increases the likelihood that customers will purchase the company's products. *H₀₂: Information asymmetry does not have significant effect on social information disclosure*.

Information Asymmetry and Governance Information disclosure

Corporate governance is defined according to Akingunola et al. (2013) as a structural framework of an organization's operations, processes, and code of conducts, including ethics that provide the organization with a clear direction toward optimizing its resources and achieving organizational goals for benefits of stakeholders. Organisation for

Economic Cooperation and Development (OECD) (2004), also define corporate governance as a collection of relationships between a company's management, board of directors and other stakeholders.

Corporate governance in any business setting necessitates the preservation of high ethical standards, assurance of customer satisfaction, high employee morale, maintenance of market discipline; management of resources with care, caution, and prudence; and protection of companies' assets (Adeoye & Amupitan, 2015). Countries that have strong corporate governance frameworks have seen rapid growth in their business sectors, and as a result, have drawn in more investments (Zaid et al. 2020; Kimani et al. 2021). The advancement of the core mandate of corporate governance to business practices and it being upheld by regulators globally, is because of its significance in promoting company values because it curbs the excesses of management and protects the interest of stakeholders, especially the shareholders. Although the code of corporate governance was introduced to serve as check on the excesses of management, it has however been established that the introduction of code of corporate governance has promoted business ethics. The promotion of business ethics is embedded in the pillars of corporate governance that centered on disclosure and transparency, responsibility and accountability, integrity and fairness (Keay & Loughrey, 2015).

The body of research on corporate governance structure have however shown that studies on corporate governance in most developing part of the world is comparatively small and insufficient (Onodugo et al., 2019; Zaid et al. 2020). Obayemi (2020) buttressed the assertion as stated that, corporate governance failure in developing countries, using Nigeria as a case is influenced by poor boards of directors, lack of control separation between the CEO and the overseeing director. Kaur and Mishra (2010); Zaid et al. (2020); Alfraih and Almutawa (2017), and Alareeni (2018) in separate studies, however blamed the failure of corporate governance in Nigeria to poor monitoring system, weak internal control, ineffective leadership, among others. Although most indicators of corporate governance failures highlighted rests majorly on the composition of the boards, the process adopted and the level of transparency of the companies in terms of disclosure is also a factor that must be considered as this depict the extent of information asymmetry problem. It is based on this premise that the hypothesis is drawn that; *H₀₃: Information asymmetry does not have significant effect on governance information disclosure*

Conceptual Framework

The study is conceptualized to indicate the relationships among the variables as shown in figure 1. The independent variables which is non-financial disclosure by social, environment and cooperate governance while the dependent variable is non-financial disclosure.

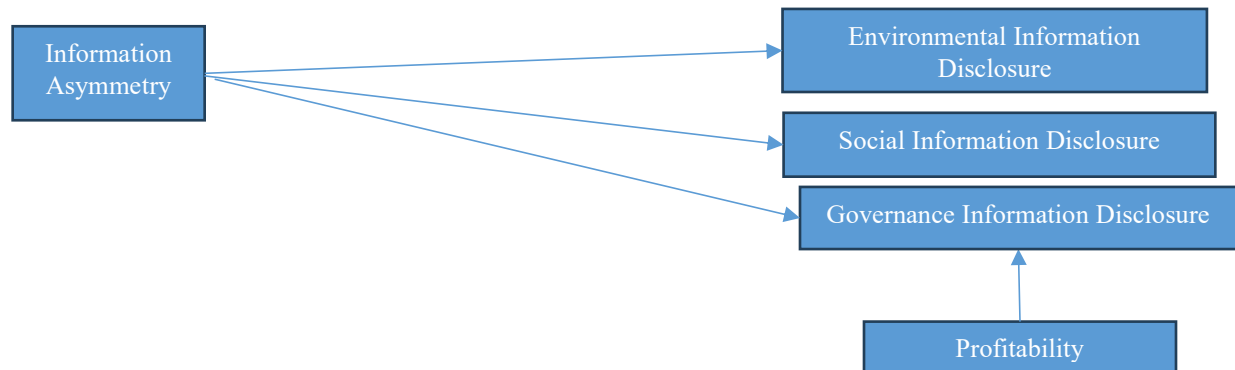
Dependent Variables**Independent Variable**

Figure 1: Conceptual Framework to show interaction between information asymmetry and non-financial information disclosure quality

Source: Author's Design

Methodology

The study adopted longitudinal research design. This method is considered appropriate because it draws historical data from the financial statements of the selected companies for analysis and conclusion purpose. The study comprises ten companies listed in the Nigerian Exchange Group (NGX) as at December, 2022. The study used the purposive sampling technique to select only firm that are listed on the premium board in the stock exchange. The study covered a period of 2013 to 2022. The study was limited to year 2022 to limit the interjection

of the impact of the COVID 19 era. Data collected were analysed using descriptive statistics and panel data regression analysis.

Model Specification

The model is developed to establish the effect of information asymmetry theory and non-financial information disclosure in listed public liability companies in Nigeria. The model was specified by adapting the study of Eshleman (2021). The model of this study was stated to capture information asymmetry on the environmental, social and governance information disclosures; while revealing the controlling effect of profitability. The functional model is therefore stated thus:

$$EID, SID, CGD = f(IA) \dots \dots \dots (i)$$

The model is stated based on the individual components as;

$$ENID_{it} = \beta_0 + \beta_1 IA_{it} + \text{Control Variable} + \beta_2 RETA_{it} + \varepsilon_{it} \dots \dots \dots (ii)$$

$$SOID_{it} = \beta_0 + \beta_1 IA_{it} + \text{Control Variable} + \beta_2 RETA_{it} + \varepsilon_{it} \dots \dots \dots (iii)$$

$$GOID_{it} = \beta_0 + \beta_1 IA_{it} + \text{Control Variable} + \beta_2 RETA_{it} + \varepsilon_{it} \dots \dots \dots (iv)$$

Where:

ENID = Environmental Information Disclosure

SOID= Social Information Disclosure

GOID= Governance Information Disclosure

IA = Information asymmetry

RETA = Profitability

θ_0 = Intercept

$B_1 - \beta_2$ = coefficient of independent variables

ε_{it} = error terms of firm i and time t.

The *a priori* expectation is stated as $B_1 - \beta_2 > 0$

Measurement of Variables

The summary of the description and measurements of each variable is shown in Table 1.

Table 1: Measurement of Variables

S/N	Variables	Description	Measurement	Source
Dependent Variables				
1	Social Information disclosure	Social information disclosure of firm	This score is derived from a predetermined weighted score on indicators related to management, shareholders, and CSR strategy.	RefinitivEikon (Thomson Reuters Eikon)
2	Corporate governance disclosure	disclosing and making transparent corporate governance policies and structures, the company gives stakeholders, the regulators and the public at large a glimpse of how the company operates and the state of its finances	It is measured from a predetermined weighted score on indicators related to management, shareholders, and CSR strategy	RefinitivEikon (Thomson Reuters Eikon)
3	Environmental disclosure	Environmental disclosure is a form of corporate responsibility to the society as a result of activities which emerging a negative impact on the environment	Environmental Information Index	Charumathi & Ramesh, 2020; Nguyen & Tran, 2019
Independent Variable				

4	Information Asymmetry	This is described from the perspective of the availability and reliability of information disclosed by companies	It is measured using the Bid-Ask spread. It represents the monetary compensation requested by stakeholders to cover the risk of dealing with better-informed traders	Cui et al. (2018)
Control Variable				
5	Profitability	This is viewed from the perspective of the return on assets of the company	It is measured by ratio of net income to total assets in a given year.	Nwude and Nwude (2021).

Source: Author's Compilation (2024)

Data Analysis and Discussion of Findings

Descriptive Analysis

Table 2: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Soid	110	.333	.201	0	.92
Gvid	110	.404	.215	.02	.67
Enid	110	.132	.238	0	1.26
Ifas	110	-.215	5.049	-15.79	12.47
Reta	110	5.881	8.756	-29.53	26.49

Source: Author's Computation (2024)

The Table 2 shows that the mean of the dependent variable of social disclosure (SOID) is 0.333 with a standard deviation of 0.201. The result implies that on average, about 33% of the firms in the study sample disclose information about their social activities. Furthermore, the result shows that the mean of governance disclosure (GVID) was 0.404 with a standard deviation of 0.215. The result implies that on average, about 40% of the firms under study disclosed information about their governance

framework. Also, the result shows that the mean of environmental disclosure (ENID) was 0.132 with a standard deviation of 0.238 indicating that on average about 13% of the firms in the study sample disclose information about their environmental activities. In the case of the independent variable, the result shows that the mean of information asymmetry (IFAS) was -0.215 with standard deviation of 5.049. The control variable of profitability (RETA) had a mean of 5.881 with a standard deviation of 8.765

Normality Test**Table 3: Normality Test**

Variable	Obs	W	V	Z	Prob>z
soid	110	0.981	1.674	1.149	0.125
gvid	110	0.888	9.990	5.132	0.000
enid	110	0.773	20.286	6.712	0.000
ifas	110	0.974	2.320	1.877	0.030
reta	110	0.955	4.018	3.102	0.001

Source: Author's Computation (2024)

The researcher follows the results of Mendes and Pala (2003) who concluded that the Shapiro-Wilk test is the most powerful normality test. From the table above, it is observed that the dependent variable of governance disclosure (prob>z = 0.000) and environmental disclosure (prob>z = 0.000) are not normally distributed since the probability of the z-statistics as revealed by the Shapiro-Wilk test are significant at 1%. The table also shows that the independent

variable of information asymmetry (prob>z = 0.000) and the control variable of profitability (prob>z = 0.030) are also not normally distributed since the probability of the z-statistics as reveal by the Shapiro-Wilk test are significant at 1% level. However, the dependent variable of social disclosure (prob>z = 0.125) follows a normal distribution since the probability of the z-statistics as reveal by the Shapiro-Wilk test is insignificant at 5% level.

Test of Variables**Correlation Analysis****Table 4: Correlation Analysis**

	(1)	(2)	(3)	(4)	(5)
Variables					
(1) soid	1.000				
(2) gvid	0.732	1.000			
(3) enid	0.488	0.313	1.000		
(4) ifas	0.149	0.082	0.131	1.000	
(5) reta	0.201	0.228	0.287	0.171	1.000

Source: Author's Computation (2024)

In examining the association among the variables, the researcher employed the Spearman Rank Correlation Coefficient (correlation matrix). From the table it is observed that information asymmetry has a positive association when dependent variable is measured in terms social disclosure (0.149) during the period under study.

The result also shows that that information asymmetry has a positive association when dependent variable is

measured in terms governance disclosure (0.149) during the period under study. Also, the result shows that information asymmetry has a positive association when dependent variable is measured in terms environmental disclosure (0.149) during the period under study. Th control variable of profitability has a positive association when dependent variable is measured in terms social disclosure (0.201) during the period under study.

Profitability also has a positive association when dependent variable is measured in terms governance disclosure (0.228) during the period under study. Finally, the result shows that profitability has a positive association when dependent variable

is measured in terms environmental disclosure (0.201) during the period under study. However, to test our hypotheses a regression results will be needed since correlation test does not capture cause-effect relationship.

Test for Multicollinearity

Table 5: VIF Test for Multicollinearity

Variable	VIF	1/VIF
ifas	1.04	0.963286
reta	1.04	0.963286
Mean VIF	1.04	

Source: Author's Computation (2024)

Multicollinearity can mainly be detected with the help of tolerance and its reciprocal, called variance inflation factor (VIF). Specifically, as indicated in the table above, a mean VIF value of 1.04 across the models shows that the mean VIF is within the benchmark value of 10, this indicates the absence of multicollinearity, and this means no independent variable should be dropped from the model.

Test for Heteroscedasticity

The study conducts this test by employing the Breusch Pagan module in Stata 14. Specifically, the assumption of

homoscedasticity states that if the errors are heteroscedastic then it will be difficult to trust the standard errors of the least square estimates. Hence, the confidence intervals will be either too narrow or too wide. The result obtained from the regression of the model as shown in the table above reveals that the probability value of the heteroscedasticity test is insignificant at 1% or 5% level across the models. This result indicates that the assumption of homoscedasticity has not been violated. Hence, the results of the OLS regression appear to be appropriate statistically for policy interpretation and recommendation

Table 6: Test for Heteroscedasticity

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of SOID

chi2(1) = 0.68

Prob > chi2 = 0.4099

Source: Author's Computation (2024)

Information Asymmetry and Non-financial Information Disclosure

Table 7: Regression Result

	SOID Model (Pooled OLS)	GVID Model (Pool OLS)	ENID Model (Pool OLS)
CONS	0.306 {0.000} ***	0.367 {0.000} ***	0.117 {0.000} ***

IFAS	0.007 {0.034} **	0.004 {0.282}	0.004 {0.021} **
RETA	0.005 {0.032} **	0.006 {0.006} **	0.003 {0.323}
F/Wald Stat.	4.79 (0.0000)	5.30 (0.0064)	11.10 (0.0001)
R- Squared	0.0822	0.0901	0.0918
VIF Test	1.04	1.04	1.04
Hetero. Test	0.68 (0.4099)	2.02 (0.1557)	1.81 (0.1789)

Note: (1) bracket {} are p-values; (2) **, *, implies statistical significance at 5% and 1% levels respectively**

Source: Author's Computation (2024)

In order to examine the cause-effect relationships between the dependent variables and independent variables as well as to test the formulated hypotheses, the study conducted a regression analysis. The table above reveals the result obtained from the regression analysis of the three models. It is observed from the OLS pooled regression that the R-squared value of 0.0822 for the model of social disclosure, 0.0901 for the model of governance disclosure, and 0.0918 for the model of environmental disclosure indicates that about 8%, 9% and 9% of the systematic variations in social, governance, and environmental disclosure respectively of the pooled manufacturing firms over the period of interest was jointly explained by the independent variable and the control variable in the models respectively. This implies that social, governance, and environmental disclosure in Nigeria cannot be 100% explained by information asymmetry and the control variable under study.

The unexplained part of social, governance, and environmental disclosure can be attributed to the exclusion of other independent variables that can affect social, governance, and environmental disclosure but are beyond the scope of the current study. However, there have been captured in the error term. The F-statistic value of 4.79

for the model of social disclosure, 5.30 for the model of governance disclosure, and 11.10 for the model of environmental disclosure as well as their associated P-value shows that the OLS regression models on the overall are statistically significant at 5% level, this means that the regression models are valid and can be used for statistical inference. However, the study conducts some post regression test to further ascertain the validity of the pool OLS regression. These tests include multicollinearity and heteroscedasticity.

The results obtained from the robust regression of the first model reveals that information asymmetry {0.007 (0.034)} appears to have a positive significant effect on social disclosure of listed manufacturing firms in Nigeria. This means that an increase in information asymmetry will significantly increase social disclosure. Hence, the null hypothesis that information asymmetry has no significant effect on social disclosure of listed manufacturing firms in Nigeria is rejected. This implies that information asymmetry significantly improves social disclosure of listed manufacturing firms during the period under investigation.

The results obtained from the robust regression of the second model reveals that information asymmetry {0.004 (0.282)}

appears to have a positive insignificant effect on governance disclosure of listed manufacturing firms in Nigeria. This means that an increase in information asymmetry will insignificantly increase governance disclosure. Hence, the null hypothesis that information asymmetry has no significant effect on governance disclosure of listed manufacturing firms in Nigeria is accepted. This implies that information asymmetry insignificantly improves governance disclosure of listed manufacturing firms during the period under investigation.

The results obtained from the robust regression of the third model reveals that information asymmetry {0.004 (0.021)} appears to have a positive significant effect on environmental disclosure of listed manufacturing firms in Nigeria. This means that an increase in information asymmetry will significantly increase environmental disclosure. Hence, the null hypothesis that information asymmetry has no significant effect on environmental disclosure of listed manufacturing firms in Nigeria is rejected. This implies that information asymmetry significantly improves environmental disclosure of listed manufacturing firms during the period under investigation.

Discussion of Findings

The result shows that information asymmetry appears to have a positive significant effect on social disclosure of listed manufacturing firms in Nigeria. This means that an increase in information asymmetry will significantly increase social disclosure. This implies that information asymmetry significantly improves social disclosure of listed manufacturing firms during the period under investigation. Reducing agency costs and information asymmetry through appropriate and purposeful Environmental

Social Governance (ESG) disclosures can increase corporate value (Yu et al., 2018). A company's reputation can be enhanced through strategic ESG disclosure, which can change people's opinions of the business (Toms, 2002). Positive sentiments like these can significantly reduce the risk to a company's reputation (Heal, 2005).

Another perspective of argument in favour of such reporting is that it could help reduce transactional and operating risk since it fosters corporate transparency and builds confidence among a company's economic stakeholders. Qiu, Shaukat, and Tharyan (2016) state that companies with objectively disclosed social and environmental data are likely to have higher anticipated cash flow growth rates. Furthermore, Cheng, Ioannou, and Serafeim (2014) find that companies with more robust CSR-related disclosures have fewer unique financial constraints and find it simpler to obtain financing. According to Husted (2005), financial investments in social and environmental issues, along with their disclosure, are viable options that involve managerial strategic and operational decisions. These choices can help reduce business risk by encouraging transparency and reducing the level of uncertainty and asymmetry.

The result from the study also shows that information asymmetry appears to have a positive insignificant effect on governance disclosure of listed manufacturing firms in Nigeria. This means that an increase in information asymmetry will insignificantly increase governance disclosure. This implies that information asymmetry insignificantly improves governance disclosure of listed manufacturing firms during the period under investigation. All listed firms must have strong and efficient corporate governance because owners are not involved in the day-

to-day operations of the company. In essence, corporate governance in any business setting necessitates the following: the preservation of high ethical standards, the assurance of customer satisfaction, high employee morale, and the maintenance of market discipline; the management of resources with care, caution, and prudence; and the protection of the company's assets (Adeoye & Amupitan, 2015).

Shareholders' value is impacted by CG practices. Nations with strong corporate governance frameworks have seen rapid growth in the business sector and, as a result, have drawn in more investment (Zaid et al. 2020; Kimani et al. 2021). Nonetheless, the body of research on CG structure in the Arab world is comparatively small and insufficient (Zaid et al. 2020). Maintaining CG standards is essential to an organization's ability to compete in the market, especially for oil and gas firms. Zaid et al. (2020), Alfraih and Almutawa (2017), and Alareeni (2018) state that CEO duality, board independence, and board size are important factors that affect the success of CG. On the other hand, Safari (2017), Areneke, Yusuf, and Kimani (2019), and Al-Tawil and Younies (2020) all underlined that an audit committee is a corporate governance approach that helps to maximize the value for shareholders. The importance of ownership structure is highlighted by Udin et al. (2016), Baraibar-Diez, Odriozola, and Sánchez (2018), and Cardoso, Carr, and Rogers (2019) as a CG practice that affects shareholders' value. Additionally, studies conducted by Jebran et al. (2020), Research by Chanda, Burton, and Dunne (2017) and Naciti (2019) has shown that companies with a more diverse board of directors outperform their competitors in terms of sustainability and generate greater value for shareholders.

Finally, the result shows that information asymmetry appears to have a positive significant effect on environmental disclosure of listed manufacturing firms in Nigeria. This means that an increase in information asymmetry will significantly increase environmental disclosure. This implies that information asymmetry significantly improves environmental disclosure of listed manufacturing firms during the period under investigation. The United Nations Commission on Sustainable Development (UNSD) and the International Federation of Accountants (IFAC) released recommendations for environmental accounting (EA) in 2001 and 2005, respectively, on which the Environmental Accounting Information is based (Nguyen & Tran, 2019). Since the 1970s, environmental law and practice have become increasingly important to governments, academic institutions, and the general public. Nonetheless, during the 1990s, businesses in wealthy nations have looked at and adopted environmental accounting. To help management make decisions about environmental operations, environmental accounting analyzes and quantifies environmental costs.

According to Grey et al. (1995), EAID serves as a portal for businesses to disclose environmental accounting data about how they use resources and preserve the environment. Resources, energy and water consumption, biodiversity, emissions, environmental complaint procedures, and other subjects are covered in the environmental information. One of the non-financial elements of an annual report, sustainability report, or corporate social responsibility (CSR) report is environmental information. Guidelines for the disclosure of both financial and non-financial information

have been released by several international organizations. The Publicly traded companies can prepare for information disclosure in annual reports with the assistance of the International Accounting Standards Board (IASB), the Global Reporting Initiative (GRI), Directive 95/2014/EU, and the Financial Accounting Standards Board (FASB). International benchmarks for non-financial performance are set by GRI (Ismail et al., 2021). The publicly available data includes economic, environmental, human rights, and social issues in accordance with the GRI's principles (GRI, 2021).

Conclusion and Recommendations

This study is conducted to investigate the effect of information asymmetry on quality of non-financial disclosed in public liability company in Nigeria. The longitudinal research design was adopted. The study focused on 10 public liability companies listed on the Nigeria Exchange Group purposively selected from the consumer goods sector. Data were collected from the annual reports of the targeted companies, for a coverage period of 2013 to 2022. Data collected were analysed using descriptive statistics and panel data regression analyses. The findings revealed that information asymmetry have positive significant effect on social disclosure of public liability companies in Nigeria. It was also found that its effect on governance was positive but, insignificant. It however also showed significant and positive effect on environmental disclosure.

Based on these findings, it was concluded that the information asymmetry problem can be reduced when full disclosure of non-financial information particularly the environmental social governance (ESG) disclosure is maintained; thereby leading to reduction in agency problem. The finding of the study that showed high significance on

social and environmental information disclosure further established the influence of the consciousness of stakeholders on the relationship of the companies with their social and environmental spheres in promoting the acceptability of the firms globally and improved competitive edge.

References

- Abad, D., Cutillas-Gomariz, M. F., Sánchez-Ballesta, J. P., and Yagüe, J. (2017). Does IFRS mandatory adoption affect information asymmetry in the stock market? *Austr. Account. Rev.* 1, 61–78. doi: 10.1111/auar.12165
- Abdel-Meguid, A. M. (2019). Differential interpretations and earnings quality. *Account. Horiz.* 33, 59–73. doi: 10.2308/acch-52435
- Alareeni, B. (2018). Does corporate governance influence earnings management in listed companies in Bahrain Bourse? *Journal of Asia Business Studies*, 12(4), 551-570. doi:10.1108/JABS-06-2017-0082
- Alfraih, M. M., and Almutawa, A. M. (2017). Voluntary disclosure and corporate governance: empirical evidence from Kuwait. *International Journal of Law and Management*, 59(2), 217-236. doi:10.1108/IJLMA-10-2015-0052
- Alhazmi, A 2017, 'Exploring the factors and effects of Corporate Social Responsibility Disclosure in Saudi Arabia (in the area of accounting and finance)'. PhD thesis, Nottingham Trent University, Nottingham.
- Al-Sakini, S. (2019). The impact of disclosure of the financial statements at the level of information asymmetry between investors: An empirical study on the

- commercial banks in Jordan. *Acad. Account. Finan. Stud. J.* 23, 1–20.
- Al-Shaer, H. (2020). Sustainability reporting quality and post-audit financial reporting quality: Empirical evidence from the UK. *Business Strategy and the Environment*
- Asemah, E. S., Okpanachi, R. A., & Edegoh, L. O. (2013). Business advantages of corporate social responsibility practice: A critical review. *New Media and Mass Communication*, 18 (1), 45– 54.
- Bhuyan, MSS 2018, 'Determinants and effects of voluntary disclosure with a focus on corporate governance and firm performance: evidence from Bangladesh'. PhD thesis, University of Wollongong, Wollongong Boshnak, H 2017, 'Mandatory and voluntary disclosures in GCC listed firms'. PhD thesis, University of the West of England, Bristol
- Brogi, M., Lagasio, V., & Porretta, P. (2022). Be good to be wise: Environmental, social, and governance awareness as a potential credit risk mitigation factor. *Journal of International Financial Management & Accounting*, 33(3), 522–547. <https://doi.org/10.1111/jifm.12156>
- Chen T, Liang Z, Yi H, Chen S (2023) Responsive E-government in China: a way of gaining public support. *Gov Inf Q* 101809. <https://doi.org/10.1016/j.giq.2023.101809>
- Cheng, B., Ioannou, I., & Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal*, 35 (1), 1–23.
- Danescu, T., Spătăcean, L. O., and Stejerean, R. M. (2021). Red flags in financial reporting - empirical studies in the AeRO market. *Acta Marisiensis Ser. Oecon.* 15, 15–28. doi: 10.2478/amso-2021-0002
- Echobu, J., Ekundayo, O., & Abu, S. (2021). Sustainability reporting and value relevance of listed oil and gas companies in Nigeria. *Federal university wukari journal of accounting and finance*, 3(5), 49-65.
- Egginton, J. F., & McBrayer, G. A. (2019). Does it pay to be forthcoming? Evidence from CSR disclosure and equity market liquidity. *Corporate Social Responsibility and Environmental Management*, 26(2), 396-407.
- Erkens, Michael, Luc Paugam, and Hervé Stolowy. 2015. Non-financial information: State of the art and research perspectives based on a bibliometric study. *Comptabilité-Contrôle-Audit* 21: 15–92.
- Evodila, E. E. (2020). The effect of information asymmetry, financial performance, financial leverage, managerial ownership on earnings management with the audit committee as moderation variables. *J. Mant.* 3, 1734–1745.
- Fernández-Gago, R., Cabeza-García, L., & Nieto, M. (2018). Independent directors' background and CSR disclosure. *Corporate Social Responsibility and Environmental Management*, 25(5), 991-1001
- Garrido-Rodríguez JC, Garrido-Montañés M, López-Pérez G, Zafra-Gómez E (2022)

- The importance of measuring local governments' information disclosure: comparing transparency indices in Spain. *Sustain* 14:13081. <https://doi.org/10.3390/su142013081> GRI (2021). GRI standards. <https://www.globalreporting.org/>
- GRI (2022). Asian companies get serious about climate change. <https://www.globalreporting.org/new/s/newscenter/asean-companies-get-serious-about-climatechange>
- Haustein E, Lorson CP (2023) Transparency of local government financial statements: analyzing citizens' perceptions. *Finance Account Manag* 39:375–393. <https://doi.org/10.1111/faam.12353>
- Heal, G. M. (2005). Corporate social responsibility: An economic and financial framework. *Geneva Papers*, 30 (3), 387–409.
- Khan A, Krishnan S, Dhir A (2021) Electronic government and corruption: systematic literature review, framework, and agenda for future research. *Technol Forecast Soc Change* 167:120737. <https://doi.org/10.1016/j.techfore.2021.120737>
- Khan, A, Muttakin, MB and Siddiqui, J 2013, 'Corporate governance and corporate social responsibility disclosures: evidence from an emerging economy', *Journal of Business Ethics*, vol. 114, no. 2, pp. 207–223.
- Khuong, N. V., Rahman, A. A. A., Meero, A., Anh, L. H. T., Liem, N. T., Thuy, C. T. M., & Ly, H. T. N. (2022). The Impact of Corporate Social Responsibility Disclosure and Accounting Comparability on Earnings Persistence. *Sustainability* (Switzerland), 14(5). <https://doi.org/10.3390/su14052752>
- Kimani, D., Ullah, S., Kodwani, D., and Akhtar, P. (2021). Analysing corporate governance and accountability practices from an African neo-patrimonialism perspective: Insights from Kenya. *Critical Perspectives on Accounting*, 78, 102260.
- Krah RDY, Mertens G (2020) Transparency in local governments: patterns and practices of twenty first century. *State Local Gov Rev* 52(3):200–213. <https://doi.org/10.1177/0160323x20970245>
- Lemma, T. T., Muttakin, M., & Mihret, D. (2022). Environmental, social, and governance performance, national cultural values and corporate financing strategy. *Journal of Cleaner Production*, 373, 133821.
- Lucia, C. D., Paziienza, P. & Bartlett, M. (2020). Does good ESG lead to better financial performances by firms? machine learning and logistic regression models of public enterprises in Europe. *Sustainability* 12 (1), 5317. doi:10.3390/su12135317.
- marketing performance? A configurational analysis in the pharmaceutical sector. *J. Bus. Ind. Market.* 37, 1594–1606. <https://doi.org/10.1108/JBIM-07-2020-0356/FULL/PDF>.
- Martini, A., 2021. Socially responsible investing: from the ethical origins to the sustainable development framework of the European Union. *Environ. Dev. Sustain.* 23, 16874–16890.

- <https://doi.org/10.1007/s10668-021-01375-3>.
- Mohammad W. M. W. & Wasiuzzaman, S. (2021). Environmental, Social and Governance (ESG) disclosure, firm advantage and performance of firms in Malaysia. *Cleaner Environmental Systems* 2 (2021). <https://doi.org/10.1016/j.cesys.2021.100015>
- Muñoz LA, Bolívar MPR, Arellano CLV (2022) Factors in the adoption of open government initiatives in Spanish local governments. *Gov Inf Q* 39(4):101743. <https://doi.org/10.1016/j.giq.2022.101743>
- Nguyen, A.H. & Nguyen, L.H. (2020). Determinants of Sustainability Disclosure: Empirical Evidence from Vietnam. *Journal of Asian Finance, Economics and Business*, 7(6), 73-84. doi: 10.13106/jafeb.2020.vol7.no6.073
- P'astor, Ł., Vorsatz, M.B., 2020. Mutual fund performance and flows during the COVID-19 crisis. *Rev Asset Pricing Stud* 10, 791–833. <https://doi.org/10.1093/rapstu/raaa015>.
- Paolone, F., Cucari, N., Wu, J., Tiscini, R., 2022. How do ESG pillars impact firms' marketing performance? A configurational analysis in the pharmaceutical sector. *J. Bus. Ind. Market.* 37, 1594–1606. <https://doi.org/10.1108/JBIM-07-2020-0356/FULL/PDF>.
- Paolone, F., Cucari, N., Wu, J., Tiscini, R., 2022. How do ESG pillars impact firms' Paolone, F., Sardi, A., Sorano, E., Ferraris, A., 2021. Integrated processing of sustainability accounting reports: a multi-utility company case study. *Meditari Account. Res.* 29, 985–1004. <https://doi.org/10.1108/MEDAR-01-2020-0667>.
- Paolone, F., Sardi, A., Sorano, E., Ferraris, A., 2021. Integrated processing of sustainability accounting reports: a multi-utility company case study. *Meditari Account. Res.* 29, 985–1004. <https://doi.org/10.1108/MEDAR-01-2020-0667>.
- Perrini, Francesco. 2006. The practitioner's perspective on non-financial reporting. *California Management Review* 48: 73–103.
- Schmidhuber L, Ingrams A, Hilgers D (2021) Government openness and public trust: The mediating role of democratic capacity. *Public Adm Rev* 81(1):91–109. <https://doi.org/10.1111/puar.13298>
- Serrasqueiro, Rogério Marques, and Tânia Sofia Mineiro. 2018. Corporate Risk Reporting: Analysis of Risk Disclosures in the Interim Reports of Public Portuguese Non-Financial Companies. *Contaduria y Administracion* 63: 1–15.
- Silva, D., and Cerqueira, A. (2021). Financial reporting quality and investors' divergence of opinion. *Account. Prospect.* 20, 79–107. doi: 10.1111/1911-3838. 12250 Slacik, J., Greiling, D., 2020. Coverage of G4-indicators in GRI-sustainability reports by electric utilities. *J. Public Budg. Account. Financ. Manag.* 32, 359–378. <https://doi.org/10.1108/JPBAFM-06-2019-0100>.

- Tejedo-Romero F, Araujo JFFE (2021) Comparative analysis of transparency policy in Iberian municipalities. *Rev Esp Doc Cient* 44(4):e309–e309. <https://doi.org/10.3989/redc.2021.4.1790>
- Tejedo-Romero F, Rodrigues M, Araujo JFFE (2023) How far is municipal transparency from neighbours? Evidence from Spain and Portugal. *Int J Public Sect Manag* <https://doi.org/10.1108/IJPSM-01-2022-0026>
- Wagner AJ (2023) Whose public virtue? Exploring freedom of information efficacy and support. *Adm Soc* 55(1):93–121. <https://doi.org/10.1177/00953997221113223>
- Yu, E. P. Y., Guo, C. Q., & Luu, B. V. (2018). Environmental, social and governance transparency and firm value. *Business Strategy and the Environment*, 27 (7), 987-1004.
- Zaid, M. A., Wang, M., Abuhijleh, S. T., Issa, A., Saleh, M. W., and Ali, F. (2020). Corporate governance practices and capital structure decisions: the moderating effect of gender diversity. *Corporate Governance: The International Journal of Business in Society*, 20(5), 939-964.
- Zaid, M. A., Wang, M., Abuhijleh, S. T., Issa, A., Saleh, M. W., and Ali, F. (2020). Corporate governance practices and capital structure decisions: the moderating effect of gender diversity. *Corporate Governance: The International Journal of Business in Society*, 20(5), 939-964.