

Sustainability Disclosure and Financial Performance of Listed Food and Beverages Companies in Nigeria

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Abstract

The thrust of this study was to ascertain the effect of sustainability disclosure on performance of listed food and beverages firms in Nigeria for a period of eleven (11) years spanning from 2010 to 2020. Ex-post facto and longitudinal research design was adopted. Sustainability disclosure which is the independent variable was captured using occupational health and safety disclosure, social environmental disclosure, environmental sustainability disclosure, employee information disclosure and corporate governance disclosure while financial performance which served as the dependent variable was measured using return on assets (ROA). Panel data were obtained from annual reports and accounts of the sampled food and beverages companies and subjected to preliminary data tests such as descriptive analysis, correlation analysis, variance inflation factor analysis and hausman effects tests for the study period. Multiple panels least regression

analysis was employed via E-Views 10. The results of the tested hypotheses revealed that occupational health and safety disclosure, environmental sustainability disclosure and employee information disclosure have positive but insignificant effect on financial performance of food and beverages companies in Nigeria while another positive and significant effect was documented against corporate governance disclosure and financial performance of food and beverages companies in Nigeria which was statistically significant at 5% level of significance. In the same vein, social sustainability disclosure was found to have negative and significant effect on performance of food and beverages companies in Nigeria at 95% confidence level. Generally, the adjusted R-squared value which stood at 46.5% indicates that all the independent variables jointly explain about 46.5% of the system variation in sustainability disclosure practices of our sampled food and beverages firms in Nigeria over the 11 years period while about 63.5% of the total variations were unaccounted for, hence captured by the stochastic error term. Based on the findings, the study recommends among others that regulatory authorities that are charged with the responsibilities of regulating the information disclosed in financial reports should review their disclosure requirements and incorporate sustainability disclosure items such as corporate social responsibility and board independence into them. Keywords: sustainability, disclosure, finance, performance, corporate.

INTRODUCTION

Sustainability has become a serious issue that is generating global attention. This could be attributed to the fact that in recent years' stakeholders have developed tremendous interests in the firms' non-financial activities. This implies that there is a serious demand by stakeholders for more disclosure on firm's non-financial performance. They needed to know the impact of the firms' activities on them and their environment. However, sustainability reporting over the years has become popular because of increase in awareness of environmental and social issues in the society (Junior, Best, & Cotter, 2014), the decreasing role of government, demand for detailed disclosure, increased pressure from investors, supplier relations and competition in labour markets (Gautam, & Singh, 2010). However, the main aim of establishing business firms is to improve the quality of life in the society. Therefore, necessary gauge should be taken to determine and reports the degree to which the firm has impacted on the society from period to period. Sustainability reporting appears to be the best option for reconciling all the doubts and information needs of the stakeholders.

The collapse of large firms such as Enron Corporation in 2001 has created concerns about corporate transparency and the inability of financial reports to convey the entire information needed to ascertain the performance of a business enterprise. This has also led to the notion that companies should report information that portrays its sustainability performance. Another argument for sustainability reporting as noted in (Usenko & Zenkina, 2016), is that financial performance cannot be properly ascertained without assessing the company's impact in economic, environmental and social terms, and disclosures of positive and negative social and environmental externalities.

Corporate sustainability has grown to be an essential concept over the last decades. Even with the effect of the financial crisis, it has remained essential to business objectives for corporate

managers (Deegan & Unerman, 2008). As the number of social and sustainability reports produced by the business community continues to increase, it has been accompanied by growing concern about their value for both companies and their stakeholders. Such reservations have been accentuated by growing associated costs and a surge of reporting standards, guidelines and awards. These initiatives, together with the activities of leading companies, have effectively enhanced the scope and technical quality of public reports.

The main objective of any organization is to consistently grow and survive on a long term basis. Most managers are also aware that their organizations are part of a large system which has profound direct and indirect influence on their operations. This implies that if these organizations must effectively and efficiently meet their objectives, they should properly adapt themselves to their environments. Adapting organizations to their environments represents a reciprocal or symbiotic relationship as typified by systems model of viewing business. Considering the current environmental crisis, businesses must give more to their environment. Internationally, a study by an accounting firm (Klynveld Peat Marwick Goerdeler, 2015), shows rising interest in corporate transparency, especially with respect to sustainability disclosure and reporting. According to (Gould, 2011), sustainability reporting is essential to equipping stakeholders with information of an organizations performance in tangible aspects.

In 2011, the International Federation of Accountants (IFAC) developed a sustainability framework, enabling business organizations to incorporate sustainability issues in their business approach, process and reporting practices. The reporting aspect of IFAC's sustainability framework involves providing audit and assurance on sustainability performance to enhance the credibility of sustainability reports, incorporation of sustainability impacts in financial statements, and employing narrative reporting to capture sustainability information not included in financial statements.

According to Wensen, Broer, Klein and Knopf in Obiamaka Nwobu (2017), sustainability reporting measures, exposes corporate performance in social, environmental and economic terms. Sustainability reporting is also synonymous with Environmental, Social and Governance (ESG) reporting which some capital markets have made mandatory for companies that are listed on them. Also, any issue that affects business stakeholders including employees, community, government, shareholders, finance providers, amongst others is what sustainability reporting is concerned with. These issues include environmental protection, environmental liabilities, renewable and recycled materials used, energy consumption, defined benefit plan obligations, structure and composition of the board, competencies of members of highest governing body, tenure on governance body, conflicts of interest, among others. Some of these issues have the ability to reduce profits while demonstrating a company's responsibility to the stakeholders, its use of resources and commitment of the governance body to transparency.

The growing nature of sustainability reporting in recent years in some countries of the world such as Spain, United States, United Kingdom, South Africa has led to increased use of standards and guidelines such as Account Ability, Global Reporting Initiative, United Nations Global Compact, Carbon Disclosure Project, by companies. In financial institutions sector, there are sustainability reporting guidelines such as Global Reporting Initiative, sustainability reporting

guidelines and financial services sector supplement. Many companies claim that they recognize their social and environmental responsibilities, in addition to their economic responsibilities and are seeking to manage and account for these activities in an appropriate manner. Corporate sustainability reporting has become so important that many companies are now embracing this changing corporate reporting system.

At a glance, efforts made in order to eschew environmental pollution would mean additional cost to companies in the short term, nevertheless they may have a chance of cost minimization in medium and long term and may ultimately cause additional income in this process (Hasan and Hakan , 2012). Nevertheless, the number of enterprises writing sustainability reports based on Global Reporting Initiative (GRI) framework worldwide increased from 150 in 2002 to 750 in 2005 (Peiyuan, Xubiao and Ningdi, 2007). In 2017, 75 percent of the Global fortune 250 (G250) and 63 percent of the largest 100 companies are reportedly applying the GRI reporting framework. GRI maintains that the reports list is an online database that tracks all GRI-based reports, that GRI is aware of and that contain a GRI content index. While the list does not include the thousands and more reports that follow GRI guidance, it does reflect wider trends in sustainability reporting.

Food and Beverage productions are capital intensive in nature and often pose a great amount of negative environmental risks such as pollution, greenhouse gas emissions, spillage arising from product wastes. Sustainability reporting is a tool in corporate transparency that encapsulates a company's non-financial and financial performance. It is especially useful because investors and other business stakeholders can have a holistic and clear view of a company's performance.

Accounting which takes social and environmental factors into consideration has been given several names over the last few years, including, environmental accounting, triple bottom line accounting, corporate social responsibility accounting, sustainable accounting, mega-accounting and Green accounting. This in itself represents a kind of development in the history of accounting. The early researches and publications to deal with the relationship between accounting and sustainability appeared more than two decades ago at the same time drawing attention to the inadequacies of traditional accounting (Schaltegger and Burritt, 2015). Stakeholders expect companies to manage the social and environmental impacts of their operations (Altschuller and Smith, 2011). In response to these agitations, many organizations have adopted Corporate Social Responsibility (CSR) programs. Many of such programs are not integrated into the organization's operations but are merely taken as philanthropic gestures; these are publicly reported in the print, radio and television media and portraying themselves to have imbibed CSR in its entirety. Occasionally, some apply environmental and labor standards that suit them to satisfy basic requirements of the laws of the land (Altschuller and Smith, 2011). Corporate Social Responsibility is about businesses and other organizations going beyond the legal obligations to manage the impact they have on the environment and society. Particularly, this includes how organizations interact with their employees, suppliers, customers, and communities in which they operate, as well as the extent to which they attempt to protect the environment. Environmental pollution is an undesirable change in physical, Chemical and biological characteristics of air land and water.

Objective of the Study

The aim of this study is to determine the effect of sustainability disclosure on financial performance of food and beverage companies in Nigeria. Based on this main objective the following specific objectives were to:

1. Ascertain the effect of occupational health and safety sustainability disclosure on return on assets of quoted food and beverages companies in Nigeria.
2. Determine the impact of social sustainability disclosure on return on assets of quoted food and beverages companies in Nigeria.
3. Examine the effect of environmental sustainability disclosure on return on assets of quoted food and beverages companies in Nigeria.
4. Evaluate the effect of employee information sustainability disclosure on return of assets of quoted food and beverages companies in Nigeria.
5. Investigate the effect of corporate governance disclosure on return on assets of quoted food and beverages companies in Nigeria.

Conceptual Review

Sustainability Reporting

Sustainability reporting has been defined by so many researchers in so many ways. But it has deduced from their definitions that they all centered on the common dimensions of sustainability which are economic, environmental, social donation and governance. Sustainability reporting is the practice of measuring, reporting and disclosure of economic, social and environment prepared by the company; it also entails reporting the governance approach to sustainable performance and impacts. Jasch and Stasiskiene (2005) describes Sustainability Reporting as a subset of accounting and reporting which deals with methods, activities and systems to record, analyze and report. Firstly, socially and environmentally induced financial impacts and secondly, social and ecological impacts of a defined economic system (example, a company, production site, and nation). Thirdly, Sustainability Reporting deals with the measurement, analysis and communication of interactions and connections between environmental, social and economic issues constituting the three dimensions of sustainability. Aswani and Swami (2017) described sustainability report as “a report prepared and published by an organization which includes important environmental, social and economic impacts as a result of its operations” It helps organizations communicate the relationship between their strategies and their commitment to sustainable development to the stakeholders. According to the International Institute of Sustainable Development (IISD), the concept of Sustainability Reporting has evolved since 1980s when the first environmental report appeared. It is sometimes also referred to as – Corporate Responsibility Reporting (CRR) or Triple Bottom Line (TBL) Reporting. However, under GRI Sustainability Reporting Guidelines (G4), sustainability reporting is defined as “a process that assists companies in setting goals, measuring performance and managing change towards a sustainable global economy – one that combines long term profitability with social responsibility and environmental care. Sustainability reporting is the key platform for

communicating the company's economic, environmental, social and governance performance, reflecting positive and negative impacts.

Occupational Health and safety sustainability

Occupational health and safety (OHS) is a multidisciplinary concept affecting issues that relates to such disciplines as law, medicine, technology, psychology and economics (Leka, 2003). According to SafeOpedia (2021), occupational health and safety relates to welfare issues, health and safety in the workplace. OHS includes programs, standards, and laws that are aimed at making the workplace better for workers, along with co-workers, family members, customers, and other stakeholders. Improving a company's occupational health and safety standards ensures good business, a better brand image, and higher employee morale. Occupational health and safety borders on addressing many types of workplace hazards, such as:

- Biological agents
- Physical hazards
- Chemicals
- Accidents
- Ergonomic issues
- Psychological fallout

Occupational health and safety standards are in place to mandate the removal, reduction, or replacement of job site hazards. OHS programs should also include material that helps minimize the effects of the hazards. Company management and employers are saddled with the responsibility of providing a safe working environment for all of their employees.

Social Sustainability

According to the UN Global Compact, Social Sustainability is a proactive way of managing and identifying business impact on employees, workers in the value chain, customers, and local communities. Social Sustainability happens when the formal and informal processes, structures, systems and relationships actively supports the capacity of current and future generations to create a healthy and livable communities. Socially sustainable communities are democratic, diverse, connected and equitable and provide a good quality of f.'- WACOSS, Western Australia Council of Social Services.

Social sustainability aims to preserve social capital by investing and creating services that constitute the framework of our society. The concept accommodates a larger view of the world in relation to communities, cultures and globalization. It means to preserve future generations and to acknowledge that what we do can have an impact on others and on the world. Social sustainability focuses on maintaining and improving social quality with ideas such as honesty, reciprocity, cohesion and the importance of relationships amongst people.

Environmental Sustainability

According to Marni Evans (2020), Environmental sustainability is responsibly interacting with the planet to maintain natural resources and avoid jeopardizing the ability for future generations

to meet their needs. It is the ability to improve the standard of human life while living within the bearing capacity of the earth's supportive ecosystem. Alternatively, Environmental Sustainability is about stabilizing the currently disruptive relationship between earth's two most complex systems: human culture and the living world. According to the United Nation (UN) world commission on Environment and Development, Environmental Sustainability is about acting in a way that ensures future generations have the natural resources available to live an equal, if not better way of life as current generation.

Environmental sustainability focuses on improving human welfare through the protection of natural capital (e.g. land, air, water, minerals etc.). Initiatives and programs are defined environmentally sustainable when they ensure that the needs of the population are met without the risk of compromising the needs of future generations.

Legitimacy Theory

This theory was developed by Lindblom in 1983, the theory stated that a condition which exists when an entity's value system is in harmony with the value system of society. This theory, maintains that it is of great importance for firms to meet up with the societal expectations to ensure the survival of firm in long-term. (Deegan, 2000) argued that sustainability disclosure tends to low the risk of regulatory actions and boycotts by stakeholders, and it strengthens the firm's license to function. According to legitimacy theory, it is necessary to achieve society's approval for the company to survive (Campbell, Craven, & Shrivs, 2002). Corporations that consider sustainability crucial to their success might be interested to show their sustainability commitment to stakeholders (internal & external) by providing an extensive sustainability report.

O'Donovan (2002) suggested that companies need to behave as what is expected from society to maintain its business activities. This need of behaving as expected from society stimulates companies to disclose information as a legitimizing tool (Cho & Patten, 2007) and use documents to change society's perception toward them (Deegan, 2002). Konar and Cohen (2001) say that companies tend to comply with environmental regulations and portray an image of environmental responsibility, which in turn is rewarded by the market. According to Ching (2017) sustainability report can be seen as one of those documents that legitimize the behavior of a company, enforcing the legitimacy theory.

However, one can understand that for a firm to remain in business and pursue its long-term goal, it must perform its legitimate responsibility to the society. Therefore, a firm cannot survive if its value system is not in harmony with that of the society. Recall that the essence of having business firm is to enhance the quality of life in the society. More so, it is through sustainability reporting that the society can understand whether firms are actually discharging their legitimate responsibility.

In organization's perspective, legitimacy has been defined by Lindblom in Deegan (2007) as a condition or status which exists when an entity's system is congruent with the value system of the larger social system of which the entity is a part. When a disparity, actual or potential, exists between the two value systems, there is a threat to the entity's legitimacy. Legitimacy theory is derived from political economy theory Gray in Kent and Stewart (2008) and relies on the idea

that the legitimacy of a company to operate in society depends on an implicit social contract between the company and society. Managers continually attempt to ensure that their company complies with its social contract by operating with society's expectations. This suggests that managers have incentives to disclose information that indicates that the company is not in breach of the norms and expectations of society Deegan *and* Blomquist in Kent *and* Stewart (2008).

This enlarged accounting or accountability may be essential for the continued existence of the corporation in its present form. Guthrie and Parker in Naser, Al-Kwari *and* Nuseibeh (2006) emphasize that under legitimacy theory, therefore, the company attempts to maintain its survival and continuity by voluntarily disclosing detailed information to society to prove it is a good citizen.

Political Economy Theory

The political economy has been described by Gray in Deegan (2007) as the social, economic and political framework within which human life takes place. Political economy theory explicitly recognizes the power conflict that exist inside the society, and the various struggles that occur between various groups within the society. The perspective embraced in political economy theory is that the economics, politics and the society cannot be separated and that economic issues cannot be investigated meaningfully in the absence of considerations about the social, political and institutional framework in which the economic activity takes place. It is argued that by considering the political economy, a research is better able to consider broader (society) issues which impact on how an organization operates, and what information it selects to disclose.

Following from the above point, Guthrie and Parker in Deegan (2007), described the pertinence of accounting within an economic political perspective. They state that the political economy perspective perceives accounting report as a political, social and economic documents. They serve as a means for sustaining, constructing, and legitimizing political and economic arrangements, ideological and institutional themes which contribute to the corporation's private interests. Political economy theory relies on the concept that economics, society and politics are indivisible and the economic events cannot be studied in comprehensive manner without reference to institutional, social and political framework in which the event occurs. A study of political economy gives room for researchers to contemplate on broader issues regarding the information companies' elect to disclose in their annual reports (Guthrie and Parker in Kent *and* Stewart, 2008).

Stakeholders Theory

Stakeholder theory was developed by Freeman (1984), the stakeholder theory maintains that firms have stewardship role towards a variety of stakeholders, different from shareholders, i.e. creditors, customers, suppliers, employees, government, community, environment, future generations, etc. Stakeholders are individuals, and organizations that are actively involved in firm's activities, or whose interest may be affected either positively or negatively as a result of the operations and decisions of firms. This people have the ability to influence the operations and result of firms. King (2002) acknowledged the importance of integrated sustainability reporting in strengthening the relationship between firm and society in which it operates. Being insensitive

to stakeholders' interests may detract firm's reputation, which would adversely affect firm's operational and financial performance.

However, looking at stakeholders' theory, it tries to establish relationship between the firm and other stakeholders including the community where the business is located unlike the agency theory that considers only the owners and the management of the business.

Empirical Review

Empirical works on impact of Sustainability Accounting and Reporting reviewed here are: Research conducted by (Burhan and Rahmanti, 2012), ascertained the relationship between sustainability reporting and company performance. Using a sample of thirty-two companies listed on the Indonesian stock exchange during the period 2006-2009, the study uses linear regression model as well as multiple regression and the researchers shows that sustainability reports does have an association with company performance, however, partially as only social performance disclosure influences the company performance.

Khavesh, Nikhashemi, Yousefi, and Haque (2012) research found a positive and considerable relationship between sustainability disclosure and revenue. Also sustainability reporting inspires companies' awareness about communities and the environment, and in addition would inspire a sustainable and continuous profitability for companies as well. The study uses linear regression model.

Ngwakwe, (2008) establishes a certain relationship between firm performance and sustainable business practices. Using a field survey methodology, a sample of sixty Nigerian manufacturing companies was studied. An investigation was undertaken into the possible relationship between the firm performance and three selected indicators of sustainable business practices: employee health and safety (EHS), waste management (WM), and community development (CD). This study revealed that the practices of sustainability of firms are significantly related with firm performance. The paper concludes that, within the Nigerian setting at least, sustainability affects corporate performance.

Researching on the impacts of corporate social responsibility on profitability of the Nigerian banking sector, a case study of first bank of Nigeria plc (Olawale, 2010) emphasizes that the main focus of the study was to determine the impact of corporate social responsibility on the profitability of the Nigerian banking sector using first bank as a case study. The Pearson product moment correlation was used to establish and tests the hypothesis: corporate social responsibility has an important impact on first bank plc's profitability.

Robbins (2011) maintains that most executives believe that corporate social responsibility reporting can improve profits while writing on "does corporate social responsibility increase profits". They understand that corporate social responsibility can enhance employee loyalty, promote respect for their company in the market place which can result in higher sales and attracts better personnel to the firm. Also, corporate social responsibility reporting activities focusing on sustainability issues may lower cost and improve efficiencies as well. Robbins (2011) observes that reviewing individual empirical studies can be confusing. But by using the technique of 'meta-analysis', many studies can be statistically analyzed to determine collective

results. A meta-analysis on corporate social responsibility and its link to profits won the famed socially responsible investing, Moskowitz prize in 2004. The study “corporate social and financial performance: A meta-analysis”, was compiled by researchers Marc Orlitzky, Frank Schmidt and Sara L. Rynes. It yielded encouraging data suggesting a positive link between corporate social responsibility and increased profits. Summing up their results, the researchers said, we conducted a meta-analysis of 52 studies (which represent the population of prior quantitative inquiry) yielding a total sample of 33,878 observations. The meta-analytic findings imply that corporate virtue in the form of social responsibility and, to a lesser extent, environmental responsibility, is likely to pay off. Corporate social performance appears to be more highly correlated with accounting-based measures of corporate financial performance than with market-based indicators and corporate social performance reputation indices are more highly correlated with corporate financial performance than are other indicators of corporate social performance. This meta-analysis establishes a greater degree of certainty with respect to the corporate financial performance and corporate social performance relationship than is currently perceived to exist by many business scholars. So the researcher generally points out that corporate social responsibility does offer potential benefits to corporate profits.

METHODOLOGY

This study adopts the ex-post facto research design. The ex-post facto research design according to Onwumere (2009) is the type of research involving events that have already taken place. Data already exist as no attempt is made to control or manipulate relevant independent variables apparently because these variables cannot be manipulated. This design is suitable for the purpose of this research because it is not possible to directly manipulate or control any of the independent variables. In this study both the independent and dependent variables exist and are observed at the same time because the effect of the later took place before this time.

Model Specification

In order to test for the relevance of the hypothesis regarding the impact of Sustainability Disclosure on financial performance of the listed Food and Beverages companies in Nigeria, the following model (Regression model) as in (Onwumere, 2009 and Argyrous, 2005) which will examine the relationship between a dependent variable and two or more repressors’ or independent variables were adopted for the respective variables and hypotheses.

$$Y = b_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 \dots \dots \dots (i)$$

Where Y is the dependent variable which describes financial performance indicator such as; Return on Asset.

The model specified thus:

$$ROA_{it} = \beta_0 + \beta_1 OHSD_{it} + \beta_2 SOCSD_{it} + \beta_3 ENVSD_{it} + \beta_4 EMISD_{it} + \beta_5 COGD_{it} + \epsilon_{it} \dots \dots \dots (3)$$

The researcher found the above variable of great interest as he focuses on evaluating on performance with regards to return on asset.

X is the independent variables which represent the components of Sustainability Disclosure;

X₁ = Occupational Health and safety sustainability disclosure

X₂ = Social Sustainability disclosure

X₃ = Environmental Sustainability disclosure

X₄ = Employee information sustainability disclosure

X₅ = Corporate Governance Disclosure

ε is the error term capturing other explanatory variables not explicitly included in the model.

b_0 is the intercept of the regression.

b_1, b_2, b_3 and b_4 are the coefficients of the regression.

The independent variables would be measured by scoring index based on performance indicators. The Occupational health and safety, social, environmental and employee sustainability disclosure index will be calculated based on the number of indicator that are disclosed (occurrence) and the level of disclosure (quantitative and qualitative). If a company discloses about any indicator, that is the occurrence of an indicator in the company's financial statement, the researcher will assign 1 or if that company did not disclose about any indicator, the researcher will assign 0.

Occupational Health and safety, social, environmental and employee information disclosure index = Total Level of Disclosure Divided over Total Occurrence.

The following abbreviations are therefore selected to denote their respective variables in the model.

$$ROA = \beta_0 + \beta_1 OHSD_{it} + \beta_2 SOCS_{it} + \beta_3 ENVSD_{it} + \beta_4 EMISD_{it} + \beta_5 COGD_{it} + \varepsilon_{it} \dots \dots \dots (3)$$

where

ROA = Return on Asset

OHSD = Occupational Health and safety Performance Disclosure Index

SOCS = Social Performance Disclosure Index

ENVSD = Environmental Performance Disclosure Index

EMISD = Employee Information Sustainability Disclosure Index

COGD = Corporate Governance Disclosure

Random Effect Regression Result

Cross-section random effects test equation:

Dependent Variable: ROA

Method: Panel Least Squares

Date: 08/18/21 Time: 13:51

Sample: 2010 2020

Periods included: 11

Cross-sections included: 11

Total panel (balanced) observations: 121

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.329540	1.152606	1.153508	0.2514
OHSD	0.064500	1.154745	0.055857	0.9556
SOCS	-0.889480	0.724601	-1.227544	0.0224
ENVSD	0.818115	2.403158	0.340433	0.7342
EMISD	0.587183	1.639220	0.358209	0.7209
COGD	0.020089	0.010081	1.992783	0.0490

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.560101	Mean dependent var	2.737627
Adjusted R-squared	0.465999	S.D. dependent var	1.902394
S.E. of regression	1.629855	Akaike info criterion	3.940333
Sum squared resid	270.9554	Schwarz criterion	4.316019
Log likelihood	-216.4797	Hannan-Quinn criter.	4.092873
F-statistic	3.826684	Durbin-Watson stat	1.634553
Prob(F-statistic)	0.000023		

Source: Researcher's summary of regression result (2021)

From the result above, the study observed that the R. squared value was 0.560 (56%) and R-squared adjusted value was 0.465 (47) approximately. The value of R- squared which is the coefficient of determination stood at 56% which implies that 56% of the systematic variations in individual dependent variables were explained in the model while about 44% were unexplained thereby captured by the stochastic error term. Again, the adjusted R-squared value which stood at 46.5% indicates that all the independent variables jointly explain about 46.5% of the system variation in sustainability disclosure practices of our sampled food and beverages firms in Nigeria over the 11 years period while about 63.5% of the total variations were unaccounted for, hence captured by the stochastic error term. The R-squared adjusted value indicates that sustainability disclosure practices variables used in this study explained about 56% of the variation in corporate performance of food and beverages firms quoted in Nigeria Exchange limited. This reveals that about 56% of what happens in corporate performance of firms can be attributable to the sustainability disclosure variables selected for the study while about 44% were unexplained. Moreover, the F-statistics value of 3.826 and its probability value of 0.0000 shows that the corporate performance used for the analysis were statistically significant at 1% level. This confirms the appropriateness of our model used for the analysis. The Durbin Watson statistics value of 1.634 reveals the absence of auto correlation and this means that the regression model is valid and can be used for statistical inference. Moreover, the Durbin Watson statistic of 1.634 showed that the model is well spread since the value is approximately 2 and that there have not been self or auto correlation problem and that error are independent of each other.

In addition to the above, the specific findings from each explanatory variable were provided below. Therefore, in testing our hypotheses, we provide the individual explanatory variables discussion for each of the independent variables as follows:

H_{01} : Occupational Health and safety sustainability disclosure has no effect on return on assets of the listed food and beverage companies in Nigeria.

The regression result in table 4.3.2 above showed that occupational health and safety disclosure have a positive effect on financial performance of food and beverages companies having recorded a positive coefficient value of 0.0645 and p-value of 0.9556 ($\beta_1 = 0.0645$, $p = 0.9556 \geq \alpha = 0.05$). The coefficient value β_1 was positive showing that occupational health and safety disclosure has a direct effect with financial performance of food and beverages companies in

Nigeria. By implication, this means that when information about employee health and safety is fully disclosed, it increases the financial performance of food and beverages companies. The model infers that 1% increase in occupational health and safety disclosure will exert 6.45% increase on financial performance of food and beverages companies in Nigeria. By implication, this suggests that additional effort geared towards disclosing employee health and safety will lead to a more return on assets of food and beverages companies. That is to say that operations and actions of occupational health and safety disclosure must serve the underlying goal of enhancing overall performance, over a sustained period of time. The t-value of 0.0558 reveals that occupational health and safety disclosure has a strong effect on financial performance of food and beverages companies but its effect is not statistically strong enough to improve performance hence a non significant effect was documented. The probability value of 0.9556 further confirms that the effect of occupational health and safety disclosure on return on assets of firms in Nigeria is statistically insignificant. Our finding is in line with the findings of Syder, Ogbonna and Akani (2020), Oshiole, Elamah and Ndubuisi (2020), Agbo, Ohaegbu and Akubuilu (2017) that found positive effect between occupational health and safety disclosure and performance even though their result was significant but ours reported insignificant effect. As a result of this insignificant result documented, this dissertation therefore accepts our first null hypothesis (H_1) and conclude that occupational health and safety disclosure has no significant effect on financial performance of food and beverages companies in Nigeria.

HO₂: There is no impact of Social Sustainability disclosure on return on assets of the listed food and beverage companies in Nigeria.

Based on t-statistics value of social sustainability measured using corporate social responsibility disclosure and its coefficient value on table 4.3.2 above, the result of the analysis revealed that social responsibility disclosure has negative coefficient value of -0.889, and P-value of 0.0224. The result of the analysis from the model above indicates that social sustainability disclosure negatively affects corporate performance. The result revealed that decrease in social sustainability disclosure leads to increase in corporate performance of food and beverages sub-sector in Nigeria. This means that a 1% decrease in compliance with full disclosure practices is associated with a 8.89% increase in profitability. By implication, this suggests that firms with less disclosure about their social sustainability are more likely to involve in maintaining high profitability index. Continuing with the indirect effect mentioned, Samet and Jarbouï's (2017) point of view is consistent with that of Benlemlih and Bitar (2018) stating that the moderating role of CSR enhances performance and investment efficiency through reducing information asymmetry and agency conflicts. As well as improving management practices by taking stakeholders' rights into consideration. In addition, Cruise (2011), Cohen et al. (2011) and Cho et al. (2013) explain that providing further financial and non-financial information assists in reducing information asymmetry, especially for high-risk firms (Cui et al., 2018). Such information offers a more accurate picture regarding a firm's performance. This indicates that having a standardized disclosure for firm CSR practices increases firm performance due to disclosing more reliable and transparent information to investors. Furthermore, Dhaliwal et al. (2011) and Lopatta et al. (2016) mention that companies exhibiting high CSR are allied with increased information quality, better transparency, and less information asymmetry. The t-value of -1.227 reveals that social sustainability disclosure has a strong negative effect on performance

of selected food and beverages firms in Nigeria while the probability value of 0.0224 reveals that the effect of social sustainability disclosure is statistically significant at 5% level of significance. The p-value result further re-affirms the t-test statistics result. As a result of this significant result obtained, we therefore reject our second null hypothesis and conclude that social sustainability disclosure has negative and significant effect on financial performance of food and beverages companies in Nigeria which was statistically significant at 5% level of significance.

HO₃: There is no significance of Environmental Sustainability disclosure on return on assets of the food and beverage companies listed.

From the regression result in table 4.3.2 above, it was discovered that environmental sustainability disclosure captured using environmental waste management disclosure have a positive and insignificant effect on return on assets having recorded a positive coefficient value of 0.8181 and p-value of 0.7342. The coefficient value (β_3) was positive showing that environmental waste management disclosure has a positive effect on return on assets of listed food and beverages companies in Nigeria. This means that a percentage increase in environmental waste and management disclosure will lead to a percentage increase in the return on assets of listed food and beverages companies in Nigeria. This alternatively indicates that improvements in a waste management disclosure are most likely to translate in growth in the return on assets of listed food and beverages companies in Nigeria. Hence when firms engage in actions that enhances waste management disclosure, it increases their performance by 0.8181 units. The model infers that 1% increase in ENVSD will exert 81% increase on return on assets of listed food and beverages companies in Nigeria. By implication, this suggests that additional effort geared towards disclosing environmental waste and management issues will lead to a more return on assets. The t-value of 0.3404 reveals that environmental waste and management disclosure has a very strong effect on return on assets of listed food and beverages companies in Nigeria but its effect is not strong enough to drive its performance. The probability value of 0.7342 further confirms that the effect of environmental waste cost disclosure on return on assets of listed food and beverages companies in Nigeria is statistically insignificant. Our finding is in line with the findings of Oshiole, Elamah and Ndubuisi (2020), Wei-Lun and Yan-kai (2019), Fahria, Sahibzada and Abdul (2016) that documented positive and significant effect between environmental waste and management disclosure and performance. As a result of this insignificant result documented, this dissertation therefore accepts our third null hypothesis and conclude that environmental sustainability disclosure has no significant effect on return on assets of listed food and beverages companies in Nigeria.

HO₄: Employee information sustainability disclosure has no effect on return on assets of the listed food and beverage companies in Nigeria.

Based on t-statistics value of employee information sustainability and its coefficient value from table 4.3.2 above, the result of the analysis revealed that employee information disclosure has positive coefficient value of 0.5871, and P-value of 0.7209. The result of the analysis from the model above indicates that employee information disclosure positively influences the level of performance of food and beverages companies. The result revealed that increase in employee

information disclosure leads to increase in performance of food and beverages companies in Nigeria. This means that a 1% increase in compliance with full disclosure practices is associated with a 0.587% (see table 4.3.2 above) increase in performance of food and beverages companies. By implication, this suggests that firms with more disclosure about their employee related information are more likely to involve in sustaining performance. This further suggests that a 1% increase in firms attempt to disclose employee related information in their annual report will lead to an automatic increase in their performance. The t-value of 0.358 reveals that employee information disclosure has a strong positive effect on financial performance of food and beverages companies in Nigeria while the probability value of 0.7209 reveals that the effect of employee information disclosure is statistically insignificant. Thus employee information disclosure has positive and insignificant effect on performance of food and beverages companies in Nigeria. As a result of this insignificant result obtained, we therefore accept our fourth null hypothesis (H_{04}) and conclude that employee information disclosure has positive but insignificant effect on performance of food and beverages companies in Nigeria.

H_{05} : Corporate governance disclosure has no significant effect on return on assets of quoted food and beverages companies in Nigeria.

It can be observed from the regression result in table 4.2.3 above that corporate governance disclosure measured using board independence has a positive coefficient value of 0.02008. This reveals a very weak but positive effect on performance of food and beverages companies measured using return on assets. As indicated in table 4.2.3 above, there is a positive relationship between COGD and ROA having recorded a positive coefficient value of 0.020, t-statistics value of 1.992 and p-value of 0.049. By implication, it means that 1% increase in corporate governance disclosure leads to increase in performance by 0.020% magnitude. Likewise, when the disclosure of board independence is reduced, it will adversely affect the profitability of food and beverages companies. Moving to the board of directors' attributes, corporate boards are from the major internal governance tools designed to alleviate investment inefficiencies since boards of directors monitor and advice top management to protect shareholders' interests, as explained in their paragraph. Ling and Wang (2010) reported that companies that have independent board members are less likely to manipulate profits, disclose more information voluntarily and present high profitability index. Therefore, when assessing the effectiveness of corporate governance, board independence is considered the most central factors. That is to say that board independence was found to be statistically significant and positively associated with the performance of food and beverages companies in such a way that when information about independence of the board members are disclosed, it enhances their performance. Our finding agreed with the studies of Ta and Bozzolam. (2008), Majeed, Aziz and Saleem (2015) and Chen (2008) that found that one of the reasons for an effective monitoring of managerial decisions is a high board independence level resulting in more performance but negates the findings of Hussain and Mallin (2003). The t-value of 1.992 reveals that corporate governance disclosure has a strong positive effect on performance of selected food and beverages firms in Nigeria while the probability value of 0.0490 reveals that the effect of corporate governance disclosure is statistically significant at 5% level of significance. The p-value result further re-affirms the t-test statistics result. As a result of this significant result obtained, we therefore reject our last null hypothesis (H_{05}) and conclude

that board independence has positive and significant effect on performance of selected food and beverages companies in Nigeria which was statistically significant at 5% level of significance.

Conclusion and Recommendation

The findings shed light on the substitute and complementary relationship between performance and the increase in sustainability disclosure quality. These firms are also more likely to show more concern towards the disclosures of their clients and to encourage companies to make voluntary disclosures in order to meet the requirement of understandability.

Based on the findings and conclusion of the study, the following recommendations were made as follows:

- I.** Managers of firms should ensure that all the strict policies as regards to occupational health and safety disclosure are adhered to in the course of their operation while emphasis on them should be encouraged to boost performance of consumer goods firms in Nigeria even though it has insignificant effect on performance of food and beverages firms in Nigeria..
- II.** Policies that will encourage corporate social responsibility disclosure via community development strategies in their host communities should be implemented to improve performance of food and beverages firms in Nigeria.
- III.** Emphasis on environmental disclosure via waste management disclosure should be minimized since it was found to have insignificant effect on performance of food and beverages firms in Nigeria.
- IV.** In the same vein, emphasis on employee information disclosure should be minimized to boost performance of food and beverages firms in Nigeria.
- V.** Board independence disclosure should be made paramount as it tends to provide a positive signal about sustainability disclosures and as well enhances performance of food and beverages companies in Nigeria.

As a general note therefore, since the general objective of a sound sustainability disclosure and environmental management is to enhance sustainability report by reducing the environmental impact while increasing the enterprise performance, all hands must be on deck to ensure that all aspects of sustainability reporting are adequately disclosed. All managers of food and beverages firms should constantly strive towards betterment of these aspects and thereby perpetuate it into generating long term economic value for its shareholders, customers, employees, other associated persons and the society at large. Operations and actions must serve the underlying goal of enhancing overall shareholder value, over a sustained period of time.

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