

DETERMINANTS OF GRI AFFECT SUSTAINABILITY REPORTING OF LISTED OIL AND GAS FIRMS IN NIGERIA AND SOUTH AFRICA

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Abstract

The study evaluates how the Determinants of GRI affect Sustainability Reporting of listed Oil and Gas Firms in Nigeria and South Africa. The researchers used an ex-post facto study approach and a content analysis method. The sample size for this study was fourteen (14) listed oil and gas enterprises, with seven (7) listed oil and gas firms in Nigeria and seven (7) listed oil and gas firms in South Africa. Secondary data was retrieved from the sampled firms' annual reports and accounts, and extracts from the annual reports were examined with Panel Least Square (PLS) regression analysis via E-Views 10.0 statistical software. The results of the tested hypotheses revealed that there is a significant positive relationship between Stand-Alone Report, and Social Sustainability reporting, while, Sustainability Committee has a significant negative relationship with Social Sustainability Reporting at 5% level of significance respectively in Nigeria. For South Africa, this study found that there is a significant positive relationship between Stand-Alone Report, and Social Sustainability Reporting. The study recommended that given the positive relationship between Stand-Alone Reports and Sustainability Reporting, Oil and Gas companies in both countries should continue to publish stand-alone sustainability reports, which can boost public confidence and improve the public image of oil companies both locally and globally.

Keywords: Stand-Alone Report, Sustainability Committee and Social Sustainability Reporting

Introduction

Every company listed on a Stock Exchange has long been required to issue financial reports which are prepared in compliance with local generally accepted accounting principles (GAAP) or international financial reporting standards (IFRS). In recent years, the importance of corporate sustainability reporting (CSR) for the economy in general and for firms in particular has attracted growing interest due to the competitive success and advantages it generates. The business world is encouraged to work actively towards CSR because, in addition to providing a business opportunity in today's world, it frequently reflects the expectations of firms' customers, human resources, society, and stakeholders. Corporate sustainability reports are identified as public reports by companies to provide internal and external stakeholders with a picture of the corporate position and activities on economic, environmental and social dimensions (WBCSD, 2014). Sustainability Reporting (SR) is a voluntary organization's activity with two general purposes (Merve & Kuzey, 2020): to assess the current state of an organization's economic, environmental and social dimensions, and to communicate an organization's efforts and sustainability progress to their stakeholders. Sustainability report can be used for assessing corporate sustainability performance over time, benchmarking against other organizations, and demonstrating how the organization influences, and is influenced by, expectations about sustainable development.

South Africa is among the world's most Biodiverse regions. It is made up of nine biomes (Wynberg, 2019). This biodiversity is, however, under threat because of climate change, expanding human populations and unsustainable use of natural resources (McNally, Cerbone & Maroun, 2017; Endangered Wildlife Trust (EWT) 2016). South Africa's marine territories have been particularly hard hit by over-fishing which has placed populations of key species under pressure and threatened the sustainability of the local seafood industry (Laine, 2019). These trends pose a significant risk for the South African economy. Commercial fisheries create an estimated 27 000 jobs and generate over ZAR5 billion (US\$560 million) in revenue per annum (World Wildlife Fund South Africa {WWF-SA}, 2018). From a social perspective, the oceans are an important source of food, providing an estimated 17% of average protein intake (World Wildlife Fund South Africa {WWF-SA}, 2018).

Sustainable development is one of the most significant issues facing society today. Today Investors and other Stakeholders in Nigeria, South Africa and beyond demand holistic view of business through corporate reporting. Stakeholders want information that will enable them to effectively assess the total economic value of an organization. They need to have more detailed information about the present and the expected future rather than just the past economic situation of company. Accounting scandals (such as Lehman Brothers, Parmalat, and WorldCom), environmental accidents and unethical practices over the years have broadened awareness of responsible business behavior (Rossi & Tarquinio, 2017). Several issues such as pollution, climate change, global warming, resource depletion, poverty, product safety, and worker rights are also increasingly attracting public interest. Financial reports are therefore no longer sufficient for stakeholders, since they do not contain information regarding the social and environmental aspects of company operations. Consequently, there have been calls for reporting on corporate social responsibility (CSR), as well as any additional information that may impact company performance. However, stand-alone sustainability reports (corporate social reports or environmental reports) have become increasingly important channels to communicate sustainability issues and initiatives.

Reporting to provide Users with broad data about all activities and uncertainties which they need to make correct judgment about a company is in the public interest considering the

global financial and economic crunch, increased sharp business practices, global warming, ozone depletion, water scarcity, poor health care services, loss of biodiversity, air pollution, extreme weather conditions, noise and disrespect for the protection of immediate and future environment results in decline in the quality and quantity of environmental resources, which consequently translates to social and economic instability among other challenges in Nigeria and South Africa. These activities will have future impact on the society, ecosystem and the economy which might affect the chance of future generations meeting their needs. Also, many drivers of value are not accounted for in the conventional corporate report. There have been increasing concerns that existing system of corporate reporting lack transparency and no longer provide all the information stakeholders need to assess corporate performance and value. The study evaluates how the Determinants of GRI affect Sustainability Reporting of listed Oil and Gas Firms in Nigeria and South Africa.

The specific objectives are to:

1. Ascertain the effect of Stand-Alone Report on Social Sustainability Reporting of listed Oil and Gas firms in Nigeria and South Africa.
2. Determine the effect of Sustainability Committee on Social Sustainability Reporting of listed Oil and Gas firms in Nigeria and South Africa.

2.0 REVIEW OF RELATED LITERATURE

Determinant is a factor which decisively affects the nature or outcome of something (Margalit & Rabinoff, 2020). Determinant is an element that identifies or determines the nature of something or that fixes or conditions an outcome. Determinant is useful for solving linear equations, capturing how linear transformation change area or volume, and changing variables in integrals. It can be viewed as a function whose input is a square matrix and whose output is a number (Horn & Johnson, 2013). Thus, Determinant is something that controls or affects what happens in a particular situation (Lin & Suvrit, 2014). Sothanaphan (2017) sees it as factor or cause that makes something happen or leads directly to a decision. In other words, Determinant is a factor, circumstance that influences or determines and something that determines an outcome or result of something (Poole, 2020).

Stand-Alone Report and Social Sustainability Reporting

Stand-alone means intended, designed, or able to be used or to function alone or separately: not connected to or requiring connection to something else (Hargrave, 2020). Standalone results represent the activities of only parent company as a single entity and do not include the performance of its subsidiaries (Malik, 2020). A report that is not part of any request set or any document set is a standalone report, that is, the report should not be spawned from any other process. Such a report is regarded as a stand-alone report (Marshall, 2020). By analyzing the standalone financials the investor will not be aware of the position of its subsidiaries which might affect its investment decisions. Stand-alone Financial Statements means the separate annual financial statements of the Company as of December 31, comprising the statement of financial position, the income statement, the statement of comprehensive income, the cash flow statement, the statement of changes in equity and the explanatory notes, audited by auditors and approved in draft form by the board of directors of the Company, and in final form by the shareholders of the Company at the shareholders' meeting (Kenton, 2020). Standalone financial statements represent the financial position and the performance of the company as a single entity without taking into account the financial position and the performance of its subsidiaries etcetera (Hayes, 2019). Standalone financial represents the financial statement of the entity as a single entity, that is, the financial represents only the position of the single entity.

An increasing number of organizations have produced formal reports on their non-financial (namely environmental and social) performance (Ong & Djajadikerta, 2017). Various rationales exist for publishing a stand-alone report. These reasons range from business incentives (such as increasing customer loyalty, attracting investors, and avoidance of reputational risks) to accountability explanations (Yusoff, Darus & Rahman, 2015). It is believed that the inclusion of an external assurance statement is one element that may increase the credibility of stand-alone reports (Lamb & Butler, 2018; Hu & Loh, 2018). Further, if the credibility of stand-alone reports is increased it is assumed that the gap between the perceptions of stakeholders and the beliefs of the reporting organizations will be bridged (GRI, 2016).

Various studies in the literature on corporate responsibility disclosure have explored the relationships between the amount or level of disclosure and characteristics of the corporation. For example, Anas, Abdul-Rashid and Annuar, 2015; Tanyi and Smith, 2015; Hashmi, Brahmana and Lau, 2018 pointed out that societal values, political and legal system, type of the ownership 'public vs. private', profit firm size and industry are significantly associated with non-financial disclosure. Similarly, El-Ghoul, Guedhami, Wang and Kwok(2016); Gavana, Gottardo and Moisello, (2017) point out that leverage, ownership structure and sales growth are variables that are significantly associated with the amount of social disclosure.

Sustainability Committee and Social Sustainability Reporting

A Sustainability Committee is a body that is accountable for the sustainability strategy and performance of the business. Not only is it a core part of good governance in any company, its role is also to integrate both business and sustainability priorities so that the company is able to thrive (Yue, 2014). The Sustainability Committee is the committee that will assist the board to meet its oversight responsibilities in relation to the company's sustainability policies and practices. The duties of the Committee include reviewing, and making recommendations to the Board on, the company's policy and performance in relation to the environment, health, safety and community relations (Marques, 2020). The role of a CSR manager, by its nature, cuts across business operations and support functions to orient the organization towards a triple bottom line. Also commonly known as the '3Ps' for people, planet and profit, this practice of taking into account not just business profits but also social and environment aspects of a company is increasingly valued by global companies today. A lack of sufficient backing from key decision makers to develop and sustain the company's efforts to improve its environment and social practices can often result in resistance from parts of the business required to report or implement change (Fonseca, 2020).

Sustainability Committee will have at least three members, with the majority of the members being independent non-executive directors. The Chairman of the Committee shall be an independent non-executive director. The Committee will meet at least once a year, and at such additional times as the Chairman of the Committee shall decide in order to fulfill its duties. An agenda and any supporting documentation will be circulated to members of the Committee at least five working days prior to each meeting. In addition to the members of the Committee, any other directors wishing to be present are entitled to attend Committee meetings (Tavares, 2020). The existence of a well-structured sustainability committee not only serves as a critical coordinating function, it can also steer a CSR strategy into a competitive advantage for business.(Wang, Huang, Liu, Shuai& Shuai, 2020).

Sustainability implications of corporate environmental and social activities have led to growing demands on modern business organizations to promote sustainability and CSR strategies that are essential for sustainable development and growth as well as gaining

competitive advantage in the market (Alberici & Querci, 2016; Arda, Bayraktar, & Tatoglu, 2019; Shaukat, Qiu, & Trojanowski, 2016). CSR discussions have shifted toward contemporary environmental and social issues to explain how business organizations are governed and what kind of corporate governance mechanisms positively affect corporate social behavior (Hussain, Rigoni, & Orij, 2018; Walls, Berrone, & Phan, 2012). Consequently, CSR and sustainability issues have gained increased attention among scholars, practitioners, and policy makers. Specifically, a number of recent studies have examined the importance of corporate boards in developing CSR initiatives and practices that affect overall sustainability performance (Biswas, Mansi, & Pandey, 2018; Haque & Ntim, 2018; Post, Rahman, & McQuillen, 2015;). In addition, other studies have provided evidence that unique human resources, strong managerial capabilities, and effective sustainability strategies enable firms to develop CSR practices which in turn lead to superior corporate environmental and social performance (Qiu, Shaukat & Tharyan, 2016; Clarkson, Li, Richardson, & Vasvari, 2011; Walker, Ni, & Dyck, 2015). However, despite the extensive literature on corporate governance and sustainability performance, relatively limited attention has been given to understanding the impacts of specialized board sustainability committees and CSR strategies on corporate environmental and social outcomes (Biswas et al., 2018; Burke, Hoitash, & Hoitash, 2019). As argued by Dixon-Fowler, Ellstrand, and Johnson (2017), there is a need to study the importance of board sustainability committees to better understand corporate governance mechanisms.

Prior studies examining the effects of board-level sustainability committees on corporate sustainability performance have been limited and provided inconclusive results (Shahab, Ntim, Chengang, Ullah & Fosu, 2018; Biswas, Mansi, & Pandey (2018); Burke, Hoitash & Hoitash, 2019; Walls, Berrone, & Phan, 2012; Dixon-Fowler, Ellstrand, & Johnson, 2017; Rodrigue, Magnan, & Cho, 2013). For example, Shahab, Ntim, Chengang, Ullah and Fosu, 2018; Rodrigue *et al.* (2013) found no association between sustainability committees and environmental performance. Biswas *et al.* (2018) and Walls *et al.* (2012), on the other hand, provide evidence that the creation of specialized sustainability committees leads to superior sustainability performance. However, most of these studies have examined the direct effects of board sustainability committees on corporate sustainability performance. As argued by Post *et al.* (2015) and Quiet *al.* (2016), there is a need to study the mechanisms through which the existence of sustainability committee might be positively related to sustainability performance.

Empirical Review

Eriabie and Odia (2016) examined the impact of corporate governance attributes on corporate, social and environmental disclosures (CSED) quality in Nigeria. The sample was made up of 174 listed companies in the Nigerian Stock Exchange between 2007 and 2008. The content analysis of the annual reports for 2007 and 2008 was adopted to measure CSED. Specifically, the two ranking scale (0, 1) was adopted to measure the CSED quality. The OLS regression analysis was used to test the impact of the corporate governance attributes on the corporate, social and environmental disclosures quality. The empirical findings revealed that the big 4 audit firms and the presence of corporate social responsibility committee have positive and significant impact on CSED quality. Mohammad, Mohamad and Ahmad (2016) examined the impact of board characteristics on the level of corporate social responsibility disclosure (CSR D) in the Jordanian banking sector for a sample of 147 banks/years during a period of 10 years (2004-2013). A checklist consisting of 100 items is developed to measure the disclosure level and the result indicates a relatively low level of disclosure in Jordanian banks. Multiple regression analysis is employed to examine the developed hypotheses. The

results indicated that the larger board size and higher level of disclosure are correlated. Determine the influence of environmental cost disclosure on the profitability of oil and gas companies listed on the Nigeria Stock Exchange in an Amahalu (2020) research conducted between 2010 and 2019. A total of eleven (11) publicly traded oil and gas firms were chosen at random. As proxies for environmental cost disclosure, waste management expenses, employee health and safety costs, and environmental remediation costs were employed, whereas net profit margin was used as profitability metric. Content analysis, as well as Pearson Correlation Coefficient and Panel Least Square (PLS) Regression analysis was used to assess the study's hypotheses using STATA 13 statistical software. The findings of this study demonstrated that waste management cost disclosure, employee health and safety cost disclosure, and environmental remediation cost disclosure all have a significant positive effect on net profit margin at a 5% level of significance. Aman and Ismail (2017) explored the corporate sustainability reporting disclosure practice by Public listed companies of Bursa Malaysia for the year 2016. Specifically the objective was to examine the level and factors that influence the corporate sustainability reporting in public listed companies in Malaysia. Results showed a significant association between industry and the level of sustainability reporting among listed firms in Malaysia. Results also did indicate that women on board are positively significant in explaining the variability in CSR from 2008 to 2019. Nzekwe, Okoye, and Amahalu (2021) looked at the impact of sustainability reporting on the financial performance of listed industrial goods businesses in Nigeria from 2008 to 2019. A intentional sampling strategy was utilized to choose eleven (11) industrial goods companies from a population of fifteen (15) listed industrial goods companies in Nigeria. The panel data used in this study was gathered from annual reports and accounts of sample firms from 2008 to 2019. Ex-post facto research was used in this study. Descriptive statistics of the dataset from the sample firms were calculated using the mean, standard deviation, minimum, and maximum values of the data for the research variables. Inferential statistics such as the Pearson correlation coefficient, Panel least square regression analysis, Granger causality test, and Hausman test were used to assess the study's hypotheses. The results showed that environmental reporting, social reporting, and economic reporting are all important at a 5% level. Braam and Peeters (2017) used a panel data set of 4686 listed companies from 21 European and North American countries during the period 2009–2014, the results indicated that companies with a superior corporate sustainability performance (CSP) are more likely to employ third parties to provide assurance on their sustainability reports than companies with an inferior sustainability performance. The results also indicated that country-specific characteristics are important for understanding the variation in choices related to voluntary third-party assurance on sustainability reports. Laskar, Chakraborty and Maji (2017) explored the disclosure of corporate sustainability (CS) practices and to examine the association between sustainability performance and financial performance in Asian context considering firms from India and Japan. The study was based on secondary data collected from annual reports and CS reports of 28 and 35 listed non-financial firms from India and Japan from 2009 to 2014. Content analysis (binary coding system) was employed to calculate the sustainability disclosure score based on Global Reporting Initiatives (GRI) framework. Market-to-book ratio is used to measure the financial performance. The study found that the average level of disclosure is more in case of Japanese firm as compared to Indian firms. Using both the regression model, the study found the influence of CS performance on financial performance is positive and significant for both the nations. From 2010 to 2016, Amahalu, Ezechukwu, and Obi (2017) investigated the link between corporate social responsibility (CSR) and the financial performance of Nigeria's publicly traded deposit money institutions. In this investigation, ex-post fact research was used. The sample size for this study is made up of the fifteen publicly traded Nigerian deposit money banks. Pearson

Coefficient Correlation, Panel Least Square (PLS) regression analysis, and the Granger Causality test were all performed using E-View 9.0. The study revealed a significant positive correlation between return on asset, return on equity, market-to-book value, and donations at a 5% level of significance. According to the data, CSR implementation increases deposit money institutions' long-term earnings. Ojiakor, Ezuwore and Ozioko (2018) ascertained the degree of relationship between environmental cost disclosure and profitability. Survey design was used to carry out the research. Data were collected using questionnaire distributed to the 113 respondents from the visible and viable motor vehicle manufacturing firms in South East, Nigeria. Personal interviews were conducted to check consistency in response. Data were analyzed using percentage frequency, while the Pearson's Product Moment Correlation Coefficient (PPMCC) statistic was used to test the hypothesis. The results of the analysis revealed that the degree of environmental cost disclosure in the financial statements of motor vehicle manufacturing firms in the South East, Nigeria is dependent on firm profitability. Kiliç and Kuzey (2018) investigated the sustainability reporting practices of Turkish non-financial companies listed on Borsa Istanbul (BIST) during the years 2004 to 2015. The study aimed to examine the factors that influenced the decisions to publish sustainability reports. The findings of the research indicated that a growing number of companies publish stand-alone sustainability reports, ranging from 1 report in 2004 to 27 reports in 2015. The findings revealed that listing on the Corporate Governance Index (CGI), having a sustainability committee, the type of industry, the size of the company and profitability are significant determinants of stand-alone sustainability reporting, whereas leverage is not. Orazalin and Mahmood (2019) investigated determinants of sustainability performance disclosures reported by publicly traded companies in Kazakhstan by using the Global Reporting Initiative (GRI) framework. Among the different possible determinants, stand-alone sustainability reporting (SR), reporting language, leverage, cash flow capacity, profitability, size, age and auditor type were selected to investigate their impacts on the quality and scope of sustainability information. The study analyzed data from publicly traded companies at the Kazakhstani Stock Exchange for the years 2013-2015. The results indicated that determinants such as stand-alone reporting, reporting language, firm profitability, firm size and auditor type substantially influence the extent, nature and quality of sustainability-reporting practices of Kazakhstani companies. Okudo and Amahalu evaluated the association between corporate governance and carbon disclosure methods of Nigerian listed industrial businesses from 2011 to 2020. (2021). The goal of this study was to see if there was a link between ownership concentration, board gender diversity, sustainability committee, and carbon emission disclosure among eighteen (18) Nigerian publicly traded manufacturing companies. In this study, ex-post facto research was used. Pearson coefficient correlation and Panel Least Square (PLS) regression analysis were performed using E-View 10.0 statistical software. At a 5% level of significance, the study discovered that ownership concentration, board gender diversity, and the sustainability committee have a significant positive relationship with carbon emission disclosure of listed industrial businesses in Nigeria. Umukoro, Uwuigbe, Uwuigbe, Adegboye, Ajetunmobi and Nwaze (2019) investigated the influence of environmentally sensitive, certified or educated board members on the disclosure of sustainability report. Based on the static panel data regression estimators for 10 Nigerian Deposit Money Banks over the period of 2014-2016, the study revealed that highly educated directors have constructive influence on the sustainability report disclosure while controlling for corporate administration and firm-level qualities. In addition, it was found that the executive and non-executive directors have low experience in environmental issues resulting in an insignificant effect on the disclosure of sustainability reporting. Najul (2019) examined the relationship between corporate sustainability reporting and firms profitability of Indian and South Korean companies. For calculating the disclosure score of sustainability

performance, content analysis technique was employed based on the reporting format of Global Reporting Initiatives. The study sample consisted of 28 listed non-financial firms from India and 26 listed non-financial firms from South Korea over a period of 6 years (2010–2015). Using the disclosure scores, regression analysis was used to examine the association between sustainability reporting/performance and firm performance. The regression results indicated that, for South Korean firms, the association is positive and significant. King'or, Naibei, Sang and Kipkosgei (2019) evaluated the relationship between environmental sustainability disclosures and board characteristics (board independence and qualifications) at the Nairobi Securities Exchange listed firms, guided by trinity theory. It employed a co-relational survey research design covering the period of five (5) years (2013 - 2017). The population was 65 firms listed, with a sample size of 56 firms. Pearson's correlation, Ordinary Least Square regression model and Environmental Disclosure Index were used in analysis. The findings indicated that board independence ($\beta = .24, p < .05$) and board qualifications ($\beta = .07, p < .05$) had a positive and significant effect on environmental sustainability disclosure. Al-Shaer (2020) investigated whether the association between sustainability reporting quality and post-audit financial reporting quality is conditional on audit effort. Analysis of data drawn from FTSE 350 companies covering 2007 to 2018 indicated that firms that produce high-quality sustainability reports are significantly and negatively associated with earnings management metrics. More importantly, the association is moderated by audit effort, measured by audit fees, suggesting that sustainability reporting quality reflects factors considered by auditors in their audit risk assessment practices. It was concluded that firms that devote more resources to producing high-quality sustainability reports are likely to demonstrate an overall commitment to quality that alleviates auditors' concerns about the opportunistic use of sustainability reporting and reduces business risk, thereby reducing the effort auditors expend to verify financial reports. Pobbi, Atta and Quarm (2020) examined the extent to which companies are complying with the sustainability reporting guidelines in Ghana. The contextual data from the Akoben special audit on industrial operations supplemented with face-to-face interviews with important stakeholder groups served as the main data source for the study. The findings of this study showed that, even though the general trend in the environmental disclosures has increased over-time, the overall performance ratings of business operations did not meet the standards required for environmental disclosures. Based on the findings, it was recommended that in the design and implementation of the rating programme, a broad consultation and active participation of all stakeholder groups must be encouraged to ensure the effectiveness of the programme. Additionally, the regulatory institutions need to be adequately resource by the government in order to strengthen their enforcement and monitoring roles.

Zou, Zeng, Xie and Zeng (2020) examined the effects of voting ownership concentration on the social and environmental disclosure of Brazilian companies in their Annual Financial Statements. Econometric models were estimated considering a sample of 1,252 annual observations of 252 companies in the period 2010-2014, and the social and environmental disclosure was measured through a lexical analysis performed by counting 75 words and key expressions related to social and environmental practices. The findings suggested that the social and environmental disclosure of Brazilian companies is positively correlated with their voting ownership concentration. In addition, if the company is listed in the Corporate Sustainability Index or if it is in a potentially aggressive industry with respect to the environment, this also positively contributed to a higher degree of social and environmental disclosure. Abdulsalam and Babangida (2020) investigated the effect of sales and firm size on sustainability reporting of oil and gas companies in Nigeria. The population of the study consisted of 24 oil and gas firms playing a major role in the upstream, midstream and

downstream of the Nigerian oil and gas sector. Six of the companies were selected to form the sample size of the study for a period of fifteen years, from 2004 – 2018. Panel regression techniques were utilized to analyze data obtained from annual accounts and stand-alone reports of the sample companies. The results showed that firm characteristics proxied by sales growth and leverage exerted a negative significant effect, whereas, firm size exerted a positive significant effect on sustainability reporting and profitability of oil and gas companies in Nigeria. Corvino, Doni and Martini (2020) investigated how the adoption of King III can affect the corporate governance model of a sample of South African listed companies on the Johannesburg Stock Exchange (JSE). Particularly, the study analyzed the influence of sustainability-related issues of the board of directors (BDs) on firm environmental disclosure, after the mandatory preparation of integrated reporting (IR). In addition, the study also examined in depth whether some corporate social policies were able to condition the foregoing disclosure. The empirical study covered the period from 2010 (the first-time adoption of IR in South Africa) to 2015 (the earliest year of the release process regarding King Code of Governance Principles for South Africa 2009 (i.e., King III)). Data were collected by the Bloomberg database. The findings showed a positive relationship between business ethics policy and firm environmental disclosure. Contrarily, CEO duality does not exert any effect over the earlier type of corporate reporting. Nechita (2021) analyzed the influence of sustainability and other non-financial reporting on companies' engagement in earnings management practices, through a pre-post adoption of European Directive 2014/95/EU comparative analysis for firms listed on the Bucharest Stock Exchange (BSE), Romania in the period 2015-2019. The research involved the assessment and analysis of three earnings management metrics resulted by running multiple linear regression models on a sample of 31 companies listed on BSE. Research findings emphasized a decrease in the use of income smoothing practices by sampled companies in the post-adoption period 2017-2019, compared to the period preceding the implementation of the EU directive related to mandatory disclosure of non-financial information, 2015-2016. Thus, firms characterized by a higher transparency in terms of sustainability reporting were less inclined to engage in earnings management practices. Eriabie and Odia (2016) examined the impact of corporate governance attributes on corporate, social and environmental disclosures (CSED) quality in Nigeria. The sample was made up of 174 listed companies in the Nigerian Stock Exchange between 2007 and 2008. The content analysis of the annual reports for 2007 and 2008 was adopted to measure CSED. Specifically, the two ranking scale (0, 1) was adopted to measure the CSED quality. The OLS regression analysis was used to test the impact of the corporate governance attributes on the corporate, social and environmental disclosures quality. The empirical findings revealed that the big 4 audit firms and the presence of corporate social responsibility committee have positive and significant impact on CSED quality. Okoye and Ezejiofor (2014) looked at the impact of the International Financial Reporting Standards (IFRS) on bank stock market performance in order to determine whether investors' expectations are met. There are fourteen banks listed on the Nigerian Stock Exchange, which make up the population. The annual accounts of these banks were examined using a stratified random sampling method and covered both SAS and IFRS for seven years (2006-2012). Findings revealed that the majority of banks were unable to generate adequate interest earnings to fulfill their interest obligations, leaving investors unsatisfied. As a result, evaluating bank stock market performance can be used to determine whether or not investors' expectations are met. Mohammad, Mohamad and Ahmad (2016) examined the impact of board characteristics on the level of corporate social responsibility disclosure (CSR) in the Jordanian banking sector for a sample of 147 banks/years during a period of 10 years (2004-2013). A checklist consisting of 100 items is developed to measure the disclosure level and the result indicates a relatively low level of disclosure in Jordanian banks. Multiple regression

analysis is employed to examine the developed hypotheses. The results indicated that the larger board size and higher level of disclosure are correlated. However, low level of disclosure is associated to higher proportion of independent directors and institutional directors. In addition, female director is found to negatively affect the level of disclosure. Oraka, Okoye and Ezejiofor (2019) assessed the association between the determinants of financial reporting timeliness of Nigerian deposit money banks. The study determined the effect of bank size and audit firm type on the timeliness of financial reporting in Nigeria. Ex-Post facto research design was adopted. The population of the study consists of sixteen (16) quoted banks on the Nigerian Stock Exchange. Regression analysis was employed to test the formulated hypotheses with aid of SPSS version 20.0. The study discovered that bank size, age of bank, audit firm type and bank performance have effect on the timeliness of financial reporting in Nigerian banks. Xue (2017) comparatively assessed the effects of company-specific variables on the level of corporate social responsibility (CSR) information disclosed in publicly-traded companies from United Kingdom (UK) and Malaysia. Content analysis was applied to sampled reports from the FTSE 100 Index and FTSE Bursa KLCI against inferred meanings from the Global Reporting Initiative (GRI)-derived coding base to identify similarities and/or differences in CSR disclosure practices. The Spearman's correlation coefficients and multiple linear regressions (MLR) analyses further gauged the associations between the variables and total quantity of CSR disclosure (TQ_{CSR}); and, determined the predictive determinants on sustainability reporting. The Spearman's correlation has identified a negative association on leverage with TQ_{CSR} for UK companies. In contrast, the TQ_{CSR} in the Malaysian sample was positively associated with directors' CSR-related experiences and profitability but negatively associated with company size. Results from multiple linear regression analyses presented company size as a significant determinant on sustainability reporting in the UK model, while directors' experiences were indicated as the crucial determinant in the Malaysian model. Ezejiofor (2018) assessed how much the value relevance of financial data in Nigerian manufacturing enterprises has improved with the implementation of International Financial Reporting Standards (IFRS). The study employed an ex-post facto research design. From the manufacturing companies quoted on the Nigerian Stock Exchange between 2008 and 2015, a sample of 54 manufacturing companies was chosen at random. The study's data was gathered from the sampled companies' annual reports and financial statements. Over determining value significance of accounting data for two separate periods, a modified price model was used. Using SPSS version 20.0, the data was analyzed and validated using regression analysis and the Chow test statistical methods. The adoption of International Financial Reporting Standards (IFRS) has enhanced the book value per share, market share price, earnings per share, and cash flow of manufacturing companies in Nigeria, according to the research. Aman and Ismail (2017) explored the corporate sustainability reporting disclosure practice by Public listed companies of Bursa Malaysia for the year 2016. Specifically the objective was to examine the level and factors that influence the corporate sustainability reporting in public listed companies in Malaysia. Results showed a significant association between industry and the level of sustainability reporting among listed firms in Malaysia. Results also did indicate that women on board are positively significant in explaining the variability in CSR. Ozigi, Ridzwana and Zaidi (2017) examined the level of employee disclosure and factors that determine such disclosure. The study covered a six year period of 2010 to 2015 of 253 companies in Malaysia. The study employed two-step system generalized method of moment (GMM) for analysis. The findings revealed a low level of corporate sustainability disclosure on employee in Malaysia. The findings revealed that company size and age are strong determinants of employee disclosure; multiple directorships appeared to be insignificant with employee disclosure. The study established the need for government involvement to enhance disclosure as voluntary disclosure appeared to be inadequate to achieve the desired result as

evidence showed that countries where disclosure is compulsory have high disclosure compare to countries with voluntary disclosure. Braam and Peeters (2017) used a panel data set of 4686 listed companies from 21 European and North American countries during the period 2009–2014, the results indicated that companies with a superior corporate sustainability performance (CSP) are more likely to employ third parties to provide assurance on their sustainability reports than companies with an inferior sustainability performance. For companies that employed third parties to provide assurance, the results supported the notion that companies with a superior CSP make different choices related to voluntary third-party assurance on sustainability reports than companies with an inferior CSP. The results also indicated that country-specific characteristics are important for understanding the variation in choices related to voluntary third-party assurance on sustainability reports Kiliç and Kuzey (2018) investigated the sustainability reporting practices of Turkish non-financial companies listed on Borsa Istanbul (BIST) during the years 2004 to 2015. This finding implies that companies in Turkey are becoming increasingly aware of sustainability reporting. However, the percentage of companies which did not produce a separate sustainability is still relatively high. The results also indicated that the most common framework for sustainability reporting is the Global Reporting Initiative (GRI). Ala (2019) focused on the relationship between the characteristics of the board of directors and the environmental disclosure in the industrial companies listed on the Amman Stock Exchange in Jordan for the period of 2014-2017. A total of 63 industrial companies were studied using three variables: the present study was based on the panel data to test the hypotheses of the study. The study found that the general trend of the level of environmental disclosure during the years (2014-2017) increased. This is as a result of increasing awareness among Jordanian industrial companies of the importance of environmental disclosure. The level of environmental disclosure is still relatively low compared to developed countries. The study also found a positive relationship between the board size, the board ownership, the firm size and the level of environmental disclosure. Agyemang, Yusheng, Ayamba, Twum, Chengpeng and Ali (2020) examined the impact of board characteristics on environmental accounting information disclosure for listed mining companies in China. Board characteristics were categorized into board size, independence characteristics, diversity characteristics, behavioral characteristics, and incentive characteristics. Using multiple regression analysis with a sample of 34 listed mining companies from both Shanghai and Shenzhen Stock Exchanges covering 2000–2018 periods, the study found a significant positive correlation between board size and Environmental Accounting Disclosure Index (EADI). Also, board independence measured by independent directors and the separation of the chief executive officer from board chairman revealed a positive and significant relationship with EADI.

Methodology

This study achieved its objectives by employing *ex-post facto* research design. This is because *ex-post facto* research design involves repeated observations of the same units (companies in this study) over a period of time (2010 to 2020). *Ex-post facto* research design also seeks to determine the cause-effect relationship between the dependent and independent variables of the study. This study also employed content analysis. Content analysis is a method of research that applies methodological procedures to analyze the content of the written medium and convert it into quantitative measures ((Bouten, Everaert, Van-Liedekerke, De-Moor & Christiaens, 2011).

Population of the Study

The population of this study consists of all the twenty (20) listed Oil and Gas firms in Nigeria and South Africa.

Sample Size and Sampling Method

Eighteen (18) listed Oil and Gas companies were selected as the sample size of this study with the utilization of purposive sampling method. Data were gathered from the published financial statements of seven (7) listed most capitalized Oil and Gas companies in Nigeria: Conoil Plc; Eterna Plc; MRS Oil Nigeria Plc; Oando Plc; Rak Unity Petroleum Company Plc; Seplat Petroleum Development Company Plc; Total Nigeria Plc and seven (7) listed most capitalized Oil and Gas firms in South Africa: Engen Petroleum; Imvume; Montuak Energy; PetroSA; Sasol; Total South Africa; Transnet Pipelines for eleven (11) years period spanning from 2010-2020, using Purposive sampling method. The sample of the study also consists of all companies that meet the following conditions: the shares of the company shall be traded in the financial market during the study period; the company has all the necessary data to calculate the variables of the study, in addition to the availability of data for the previous year for the study period and to facilitate the calculation of the control variables; the company has not been incorporated or stopped trading during the study period; no merger process between firms; the sample firms publish audited financial statements using reporting period ended on December 31 each year. The reason for the choice of this time frame is availability of published annual report and accounts of the selected organizations and to have a fairly, reasonably, reliably and up-to-date available financial data.

Sources of Data

Primarily, this study would make use of secondary data. The data would be sourced from publications of the Nigerian stock exchange (NSE) and Johannesburg Stock Exchange (JSE), Fact Books for various years, Annual Report and Accounts, and websites of the respective sampled listed Oil and Gas companies, particularly the Comprehensive Income Statement and Statement of Financial Positions of these companies as well as their respective notes to the accounts and stand alone sustainability report from 2010-2020.

Model Specification

The Panel data equation can be depicted as follows:

$$Y_{it} = \alpha_i + \beta_{ij}x_{it} + \varepsilon_{it}$$

y_{it} : vector of dependent variable, such that $(y_{it}) = (SSR)$

x_{it} : vector of explanatory variables, such that $(x_{it}) = (STAR, SUSCOM, OWNS, ROE, LEV, CTR, FSZ)$

i = company

t = time

The vector of dependent variable (y_{it}) is sustainability reporting indicator to be determined, while (x_{it}) is vector of the explanatory variables, that is, factors that can influence sustainability reporting. The parameters (β_{ij}) are the various coefficients of the explanatory variables that were obtained when the model was fitted into the data. The constant term (α_i) represents the intercept of the equations while (ε_{it}) is the error term that captures variables not included and expected to be identically distributed with zero mean and constant variance.

This study adapted the model of Grigorescu, Maer-Matei, Mocanu and Zamfir (2020):

$$SRI_{it} = \theta_i + \lambda_1 BODC_{it} + \lambda_2 LEV_{it} + \lambda_3 FSE_{it} + \lambda_4 PROF_{it} + \rho_{it}$$

where

θ : constant

λ : coefficient variable

ρ : error term

SRI = Sustainability Reporting Indicator

BODC: Board Committee on Sustainability,

Leverage = LEV

FSE = Frequency of Stakeholder Engagement

Profitability = PROF

Thus, the resultant linear regression models of this study are:

$$SSR_{it} = \beta_0 + \beta_1 STAR_{it} + \beta_2 CTR_{it} + \beta_3 FSZ_{it} + \mu_{it} \quad - \quad - \quad i$$

$$SSR_{it} = \beta_0 + \beta_1 SUSCOM_{it} + \beta_2 CTR_{it} + \beta_3 FSZ_{it} + \mu_{it} \quad - \quad - \quad i$$

Where:

SSR_{it} = Social Sustainability Reporting of firm i in period t

$STAR_{it}$ = Stand-Alone Report of firm i in period t

$SUSCOM_{it}$ = Sustainability Committee of firm i in period t

CTR_{it} = Capital Turnover Ratio of firm i in period t

FSZ_{it} = Firm Size of firm i in period t

$\mu_{i,t}$ = component of unobserved error term of firm i in period t

β_0 = constant term

β_1, β_2 and β_3 = are slopes to be estimated of firm i in period t .

i = firm identifier (14 firms)

t = time variable (2010, 2011, ...2020) – (Eleven Years)

Method of Data Analysis

The data were collected from annual reports. The dependent variable is the quantity of sustainability reporting in corporate annual reports and stand-alone reports. The measurement technique for the dependent variable (Social Sustainability Reporting) is a 30 item sustainability reporting index adapted from Global Reporting Initiative (2016) (refer to appendix I). Social sustainability reporting is calculated in this study as a dichotomous equally weighted index. All the disclosure items are equally weighted and each of the 30 expected items present in corporate reports are attributed a score of '1' and a score of '0' is given to imply the absence of the disclosure. Where the number (1) is given for each item in the index if disclosed and the number (0) for each item in the index if not disclosed for companies. Then the number of items disclosed by the company was divided by the sum of the total items to reach the level of disclosure for each company.

Descriptive statistics was adopted to provide a description of data seen from the average value (mean), standard deviation, maximum, minimum, kurtosis, and skewness (slope distribution). Inferential data analysis which entails the use of statistical tools to test the hypotheses was equally employed:

- i. Panel least square (PLS) regression analysis: was used to predict the effect of the independent variable on the dependent variable.

Decision Rule

Accept Null hypothesis (H_0) if the P-value of the test is greater than 0.05, otherwise reject,

Analysis of Data

Data analyses tools make it easier for Users to process data, and analyze the relationships and correlations between data sets. It also helps to identify patterns and trends for interpretation.

Table 1: Descriptive Statistics (Nigeria)

	SSR	STAR	SUSCOM	CTR	FSZ
Mean	0.4773	0.5455	0.5218	0.1009	9.6300
Median	0.4700	1.0000	1.0000	0.0900	9.6800
Maximum	0.7300	1.0000	1.0000	0.1700	10.2300
Minimum	0.2200	0.0000	0.0000	0.0500	9.1200
Std. Dev.	0.1433	0.5222	0.5041	0.0378	0.2827
Skewness	0.1260	0.1826	-0.1306	0.6950	0.3587
Kurtosis	2.6780	1.2429	1.0333	2.3945	3.5170
Jarque-Bera	7.0766	7.8338	1.6074	1.0537	0.3584
Probability	0.0424	0.0321	0.3997	0.5905	0.8359
Sum	5.2500	6.0173	6.0000	1.1100	105.9300
Sum Sq. Dev.	0.2052	2.7273	2.7273	0.0143	0.7994
Observations	77	77	77	77	77

Source: E-Views 10.0 Descriptive output, 2021

Interpretation

Descriptive statistics are ways to describe and present information from large amounts of data. Descriptive statistics provide a description of data seen from the average value (mean), standard deviation, maximum, minimum, sum range, kurtosis and skewness (slope distribution). The descriptive statistical test results as shown in table 1 shows an observation of 77; reflecting the activities of the 7 cross-sectional firms for a time period of 11 years (7 firms x 11 years = 77) . The mean value of 0.4773 for SSR demonstrates the degree at which sample firms disclose their social sustainability items. The maximum value of SSR = 0.7300 indicates that the highest level to which sample firms disclose their social sustainability items stood at 73% while the minimum degree of social sustainability items disclosed stood at 22%. On the average, the involvement of firms in Stand-Alone Report preparation approximately stood at 55%, the maximum percentage of firms' involvement is 100% while the minimum value is 0.0000. The average mean value for the existence of sustainability committee is 52% with a maximum of 1.0000 and minimum of 0.0000. For ownership structure, the average mean value is 0.5436 which means that 54.4% of the company's share is owned by the public or individual, which puts pressure on the company. Meanwhile, the maximum value of share ownership is 74% while the minimum value of share ownership is 32%. The average mean value of capital turnover ratio is approximately 10%, with a standard deviation of 0.0378, maximum ratio of 0.1700 and minimum of 0.0500. Meanwhile, the FSZ of sample firms averagely stood at 9.6300 with a maximum value of 10.2300 and minimum of 9.1200.

Table 2: Descriptive Statistics (South Africa)

	SSR	STAR	SUSCOM	CTR	FSZ
Mean	0.3455	0.7273	0.5455	0.2564	10.1246
Median	0.1800	1.0000	1.0000	0.2700	10.2000
Maximum	0.8100	1.0000	1.0000	0.4700	10.4400
Minimum	0.1200	0.0000	0.0000	0.1000	9.5700
Std. Dev.	0.2787	0.4671	0.5222	0.1033	0.2788
Skewness	0.9273	-1.0206	-0.1826	0.4887	-0.5571
Kurtosis	2.0099	2.0417	1.0333	2.8206	2.2443
Jarque-Bera	2.0257	2.3307	1.8338	0.4526	0.8308
Probability	0.3632	0.3118	0.3997	0.7975	0.6601
Sum	3.8000	8.0000	6.0000	2.8200	111.3700
Sum Sq. Dev.	0.7767	2.1818	2.7273	0.1067	0.7775
Observations	77	77	77	77	77

Source: E-Views 10.0 Descriptive output, 2021

Interpretation

Descriptive statistics are ways to describe and present information from large amounts of data. Descriptive statistics provide a description of data seen from the average value (mean), standard deviation, maximum, minimum, sum range, kurtosis and skewness (slope distribution). The descriptive statistical test results as shown in table 2 shows an observation of 77; reflecting the activities of the 7 cross-sectional firms for a time period of 11 years (7 firms x 11 years = 77). The mean value of 0.3455 for SSR demonstrates the degree at which sample firms disclose their social sustainability items. The maximum value of SSR 0.8100 indicates that the highest level to which sample firms disclose their social sustainability items stood at 81%, while the minimum degree of social sustainability items disclosed stood at 12%. On the average, the involvement of firms in Stand-Alone Report preparation approximately stood at 72.7%, the maximum percentage of firms' involvement is 100% while the minimum value is 0.0000. The average mean value for the existence of sustainability committee is 54.6% with a maximum of 1.0000 and minimum of 0.0000. For ownership structure, the average mean value is 0.2564 which means that 25.6% of the company's share is owned by the public or individual, which puts pressure on the company. Meanwhile, the maximum value of share ownership is 68% while the minimum value of share ownership is 13%. The average mean value of capital turnover ratio is approximately 25.6%, with a standard deviation of 0.1033, maximum ratio of 0.4700 and minimum of 0.1000. Meanwhile, the FSZ of sample firms averagely stood at 10.1246 with a maximum value of 10.4400 and minimum of 9.5700.

Test of Hypotheses

Hypothesis One

H₀₁: Stand-Alone Report has no significant effect on Social Sustainability Reporting of listed Oil and Gas firms in Nigeria and South Africa.

Table 3: Panel Least Square Regression Analysis on effect of Stand-Alone Report on Social Sustainability Reporting (Nigeria)

Dependent Variable: SSR
Method: Panel Least Squares
Date: 06/30/21 Time: 06:07
Sample: 2010 2020
Periods included: 11
Cross-sections included: 7
Total panel (balanced) observations: 77

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.701154	0.479646	3.546684	0.0006
STAR	0.011584	0.055209	3.401485	0.0009
CTR	0.241033	0.139203	1.731525	0.0860
FSZ	-0.142983	0.048150	-2.969554	0.0036
R-squared	0.404127	Mean dependent var		0.360627
Adjusted R-squared	0.381156	S.D. dependent var		0.252160
S.E. of regression	0.241712	Akaike info criterion		0.030357
Sum squared resid	6.835672	Schwarz criterion		0.122780
Log likelihood	2.163403	Hannan-Quinn criter.		0.067893
F-statistic	10.22963	Durbin-Watson stat		1.821247
Prob(F-statistic)	0.000005			

Source: E-Views 10.0 Regression Output, 2021

Table 4: Panel Least Square Regression Analysis on effect of Stand-Alone Report on Social Sustainability Reporting (South Africa)

Dependent Variable: SSR
Method: Panel Least Squares
Date: 06/30/21 Time: 09:29
Sample: 2010 2020
Periods included: 11
Cross-sections included: 7
Total panel (balanced) observations: 77

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.396276	0.517553	-2.697842	0.0087
STAR	0.212559	0.026569	2.457694	0.0164
CTR	-0.004371	0.006201	-0.704793	0.4832
FSZ	0.181819	0.053516	3.397485	0.0011
R-squared	0.441808	Mean dependent var		0.358133
Adjusted R-squared	0.416540	S.D. dependent var		0.278203
S.E. of regression	0.262966	Akaike info criterion		0.216963
Sum squared resid	5.048016	Schwarz criterion		0.338719
Log likelihood	-4.353074	Hannan-Quinn criter.		0.265664
F-statistic	4.020847	Durbin-Watson stat		1.745379
Prob(F-statistic)	0.010502			

Source: E-Views 10.0 Regression Output, 2021

Interpretation of Regression Results

The output of the regression model analysis for Nigeria as in Table 3 shows that there is 38.12% variation in the prediction of Social Sustainability Reporting (SSR) by STAR, CTR

and FSZ which are the measures to the independent variable- Stand Alone Reporting (adjusted R-square was 0.3812). This is more as Stand Alone Reporting (STAR) and Firm size (FSZ) made the most statistical significant contribution in explaining Social Sustainability Reporting (SSR) practices among sampled Oil and Gas companies in Nigeria (*p-values 0.0009 and 0.0036 for STAR and FSZ are less than 0.05 standard significant level*), though the strength of the predictive contribution by STAR maintained a strong and positive status (t-statistics = 3.401) when compared to those of FSZ which appeared negative yet strong at t-statistics -2.969.

The situation in South Africa as depicted in Table 4 appears a bit different from the observations made in Nigeria. Closer look revealed that 41.7% variations in Social Sustainability Reporting (SSR) practices in South Africa were explained by STAR, CTR and FSZ (adjusted R-square was 0.41654). Similarly, the predictive trend of the independent variables in Nigeria and South Africa look quite the same but to an extent. This is because Stand Alone Reporting (STAR) and Firm size (FSZ) as is the case in Nigeria equally made the most statistical significant contribution in explaining Social Sustainability Reporting (SSR) practices of sampled Oil and Gas companies in South Africa (*p-values 0.01 and 0.00 for STAR and FSZ are less than 0.05 standard significant level*), as the strength of the predictive contributions by STAR and FSZ were both strong and positive (t-statistics = 2.457 and 3.397 respectively). However, the predictive direction of FSZ in South Africa (which is positive) differed from those of Nigeria where it maintained a negative status. implying that unlike in South Africa, Firm size (FSZ) in Nigeria though affirmed to be related to SSR, plays insignificant role when considering sampled Nigerian Oil and Gas companies' attitude to Social Sustainability Reporting. Besides, the outcome of the Capital Turnover Ratio (CTR) for Nigeria and South Africa differed completely. While the situation in Nigeria showed that CTR made a positive and strong contribution in explaining SSR practices in Nigeria (t-statistics 1.7315), sampled Oil and Gas companies in South Africa painted a rather weak and negative contribution in the prediction of SSR by CTR (t-statistics -0.7047). Both countries' CTR p-value output in Tables 3 and 4 further showed that Capital Turnover Ratio are statistically insignificant in explaining Social Sustainability Reporting practices in Nigeria and South Africa (p-values 0.08 and 0.48 which are greater than 0.05).

Deducing further from Nigeria, Table 3, the value of β_1 (STAR) is 0.011584 which depicts that 1% change in Stand-Alone Report in Nigeria will cause a positive change in SSR by 1.16%; 1% change in CTR (β_2) will positively cause 24.10% change in SSR. Also, 1% change in FSZ (β_3) will negatively exert 14.3% change in SSR. Table 4 present a different picture for South Africa where the value of β_1 (STAR) is 0.212559 implying that 1% change in Stand-Alone Report in South Africa will cause a positive change in SSR by 2.13%; 1% change in CTR (β_2) will negatively cause 21.26% change in SSR. Also, 1% change in FSZ (β_3) will positively exert 18.18% change in SSR.

The Durbin Watson for Nigeria and South Africa as in Tables 3 and 4 which stood at 1.821247 and 1.745379 respectively show that the problem of auto-correlation does not exist in both countries.

Also, the value of F-statistic for Nigeria and South equal 10.22963 and 4.020847 with associated P-values of 0.000005 and 0.010502 respectively. This readily attests to the fact that the overall model for Nigeria and South Africa is a good fit.

Decision

Accept null hypothesis if p-value is greater than 0.05, otherwise reject and accept the alternate hypothesis. Since the Probability value (p-value) for Nigeria and South Africa

(0.000005 and 0.010502 respectively) is significant and less than 0.05 at 5% level of significance, the alternate hypothesis is accepted and this means that *Stand-Alone Report has significant effect on Social Sustainability Reporting of listed Oil and Gas firms in Nigeria and South Africa.*

Hypothesis Two

H₀₂: Sustainability Committee has no significant effect on Social Sustainability Reporting of listed Oil and Gas firms in Nigeria and South Africa.

Table 5: Panel Least Square Regression on the effect of Sustainability Committee on Social Sustainability Reporting (Nigeria)

Dependent Variable: SSR
Method: Panel Least Squares
Date: 06/30/21 Time: 06:26
Sample: 2010 2020
Periods included: 11
Cross-sections included: 7
Total panel (balanced) observations: 77

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.616351	0.463165	3.489793	0.0007
SUSCOM	-0.050982	0.046420	-3.152615	0.0021
CTR	0.243334	0.137331	1.771875	0.0790
FSZ	-0.131800	0.047798	-2.757409	0.0068
R-squared	0.372935	Mean dependent var		0.360627
Adjusted R-squared	0.330190	S.D. dependent var		0.252160
S.E. of regression	0.240521	Akaike info criterion		0.020477
Sum squared resid	6.768465	Schwarz criterion		0.112899
Log likelihood	2.761168	Hannan-Quinn criter.		0.058013
F-statistic	4.965218	Durbin-Watson stat		1.842844
Prob(F-statistic)	0.002798			

Source: E-Views 10.0 Regression Output, 2021

Table 6: Panel Least Square Regression Analysis on the effect of Sustainability Committee on Social Sustainability Reporting (South Africa)

Dependent Variable: SSR
Method: Panel Least Squares
Date: 06/30/21 Time: 09:41
Sample: 2010 2020
Periods included: 11
Cross-sections included: 7
Total panel (balanced) observations: 77

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.344525	0.512819	-2.621832	0.0106
SUSCOM	-0.044826	0.060976	-4.020497	0.0001
CTR	-0.003883	0.006217	-8.624530	0.0000
FSZ	0.180257	0.053211	3.387574	0.0011
R-squared	0.745507	Mean dependent var	0.358133	
Adjusted R-squared	0.710391	S.D. dependent var	0.278203	
S.E. of regression	0.262398	Akaike info criterion	0.212644	
Sum squared resid	5.026258	Schwarz criterion	0.334400	
Log likelihood	-4.186778	Hannan-Quinn criter.	0.261345	
F-statistic	26.13585	Durbin-Watson stat	1.754501	
Prob(F-statistic)	0.000000			

Source: E-Views 10.0 Regression Output, 2021

Interpretation of Regression Results

Table 5 (regression model analysis for Nigeria) shows that there is 33.01% variation in the Social Sustainability Reporting (SSR) practices in Nigeria was explained by the independent variables SUSCOM, CTR and FSZ (adjusted R-square was 0.3301). This is completely different in South Africa where SUSCOM, CTR and FSZ predictively contributed in explaining 71.04% of the variations in Social Sustainability Reporting practices in South Africa (adjusted R-square was 0.7104).

Sad enough, the existence of Sustainability Committee (SUSCOM) in sampled Oil and Gas firms in Nigeria and South Africa though statistically significant at p-values of 0.0021 and 0.0001 (since p-value are less than 0.05) for Nigeria and South Africa, appear to be in doubt as SUSCOM made negative contributions in explaining the variations in SSR practices in Nigeria and South Africa (t-statistics -3.153 and -4.020). On the other hand, Firm Size (FSZ) made a statistically significant but negative contribution in SUSCOM's explanation of SSR practices in Nigeria (t-statistics -2.757, p-value 0.0068) though it (FSZ) made a statistical significant and positive contribution in SUSCOM explanation of Social Sustainability Reporting (SSR) practices of sampled Oil and Gas companies in South Africa (*t-statistics of 3.388 and p-value of 0.0011 which is less than 0.05 standard significant level*).

Capital Turnover Ratio contributions to SUSCOM explanation of Social Sustainability Reporting (SSR) in Nigeria and South Africa peaked at t-statistics 1.771875, p-value 0.0790, indicating a strong, positive but statistically insignificant contributions, while those of South Africa revealed a strong, statistically significant but negative contributions made by CTR (t-statistics -8.624530, p-value 0.0000).

Deducing further from Table 5 the beta coefficient revealed that a unit increase in SUSCOM in Nigeria reduces SSR by 0.05units; a unit increase in CTR increases SSR by 0.24 units; a

unit increase in FSZ reduces SSR by 0.13 units. But in South Africa, Table 6 reveals that a unit increase in SUSCOM reduces SSR by 0.04 units; a unit decrease in CTR increases SSR by 0.003883 units; a unit increase in FSZ increases SSR by 0.180257 units.

Looking at the Durbin Watson for Nigeria and South Africa as in Tables 5 and 6 which lays great emphasis on the auto correlation among the study variables, it was discovered that the values of 1.842844 and 1.754501 for Nigeria and South Africa respectively which are less than 2, provide evidence of no auto-correlation among the variables in both countries studied, also, the value of F-statistic for Nigeria and South that equal 4.965218 and 26.1358 respectively with associated P-values of 0.002798 and 0.000000, readily attests to the fact that the overall model for Nigeria and South Africa is a good fit.

Decision

Accept null hypothesis if p-value is greater than 0.05, otherwise reject and accept the alternate hypothesis. Since the Probability values (p-value) for Nigeria and South Africa (0.002798 and 0.000000 respectively) is significant and less than 0.05 at 5% level of significance, the alternate hypothesis is accepted and this means that *Sustainability Committee has significant effect on Social Sustainability Reporting of listed Oil and Gas firms in Nigeria and South Africa.*

Discussion, Conclusion and Recommendations

Stand-Alone Report significantly affects Social Sustainability Reporting:

The regression model for Nigeria shows that there is a positive and significant relationship between Stand-Alone Report and SSR; an insignificant but positive relationship between CTR and SSR; a significant but negative relationship between FSZ and SSR. The value of β_1 (STAR) is 0.011584 which shows that 1% change in Stand-Alone Report will cause a positive change in SSR by 1.16%; 1% change in CTR (β_2) will positively cause 24.10% change in SSR. Also, 1% change in FSZ (β_3) will negatively exert 14.3% change in SSR. The value of the t-statistic = 3.401485, 1.731525 and -2.969554 for β_1 , β_2 , and β_3 respectively. The adjusted R^2 is 0.381156 which shows that 38.12% variation in SSR is explained by the explanatory variables (STAR, CTR and FSZ). This is quite different from the situation in South Africa where a non-significant negative relationship between CTR and SSR exists; a significant positive relationship between FSZ and SSR. The value of β_1 (STAR) is 0.212559 which shows that 1% change in Stand-Alone Report will cause a positive change in SSR by 2.13%; 1% change in CTR (β_2) will negatively cause 21.26% change in SSR. Also, 1% change in FSZ (β_3) will positively exert 18.18% change in SSR. The value of the t-statistic = 2.457694, -0.704793 and 3.397485 for β_1 , β_2 , and β_3 respectively. The adjusted R^2 is 0.416540 which shows that 41.65% variation in SSR is explained by the explanatory variables (STAR, CTR and FSZ).

The findings of this study is consistent with prior studies by Nechita (2021); Pobbi, Atta and Quarm (2020); Kamwana and Ombati (2018); Aman and Ismail (2017); Nwobu (2017), Oncioiu, Petrescu, Bîlcan, Petrescu, Popescu and Anghel (2020); Zaher (2020); and Al-Shaer (2020) but negates the works of Corvino, Doni and Martini (2020); Ozigi, Ridzwana and Zaidi (2017); Xue (2017), Khaled, Khelif and Hussainey (2020); Kiliç and Kuzey (2018).

Sustainability Committee significantly affects Social Sustainability Reporting:

The regression result for Nigeria reveals an adjusted R^2 value of 0.330190. The adjusted R^2 , which represents the coefficient of multiple determinations imply that 33% of the total variation in the dependent variable (SSR) of quoted oil and gas firms in Nigeria is jointly

explained by the explanatory variables (SUSCOM, CTR and FSZ). The adjusted R^2 of 33% did not constitute a problem to the study because the F- statistics value of 4.965218 with an associated $\text{Prob.}>F = 0.002798$ indicates that the model is fit to explain the relationship expressed in the study model and further suggests that the explanatory variables are properly selected, combined and used. The value of adjusted R^2 of 33% also shows that 67% of the variation in the dependent variable is explained by other factors not captured in the study model. This suggests that apart from SUSCOM, CTR and FSZ there are other factors that mitigate the existence of Sustainability Committee of quoted oil and gas firms in Nigeria. The regression results illustrated that the existence of Sustainability Committee has a negative and significant effect on SSR measured with a beta coefficient ($\beta_1 = -0.050982$); t- value of -3.152615 and p- value of 0.0021 which is statistically significant at 5%.

The situation in South Africa however reveals an adjusted R^2 value of 0.710391. The adjusted R^2 , which represents the coefficient of multiple determinations imply that 71% of the total variation in the dependent variable (SSR) of quoted oil and gas firms in South Africa is jointly explained by the explanatory variables (SUSCOM, CTR and FSZ). The adjusted R^2 of 71% did not constitute a problem to the study because the F- statistics value of 26.13585 with an associated $\text{Prob.}>F = 0.000000$ indicates that the model is fit to explain the relationship expressed in the study model and further suggests that the explanatory variables are properly selected, combined and used. The value of adjusted R^2 of 71% also shows that 29% of the variation in the dependent variable is explained by other factors not captured in the study model. This suggests that apart from SUSCOM, CTR and FSZ there are other factors that mitigate the existence of Sustainability Committee of quoted oil and gas firms in South Africa. The results illustrated that the existence of Sustainability Committee has a negative and significant effect on SSR measured with a beta coefficient ($\beta_1 = -0.044826$); t- value of -4.020497 and p- value of 0.0001 which is statistically significant at 5%.

The result of this study is in line with prior findings made by Hidayah, Nugroho and Prihanto (2021); Al-Shaer (2020); Ahmed, Awais and Muhammad (2018); Nwobu, Iyoha and Owolabi (2018), Corvino, Doni and Martini (2020); Nam and Le (2020); Tri and Ismawati (2018); but contradicts the findings of Mohamad, Rahayu, Kaujan and Irwandi (2020); Mohammad, Aburuman and Hussien (2019), Abdulsalam and Babangida (2020); Mohammad, Aburuman and Hussien (2019); Ndubuisi, Ifechi and Onyema (2018).

The results of the tested hypotheses revealed that there is a significant positive relationship between Stand-Alone Report, and Social Sustainability reporting, while, Sustainability Committee has a significant negative relationship with Social Sustainability Reporting at 5% level of significance respectively in Nigeria. For South Africa, this study found that there is a significant positive relationship between Stand-Alone Report, and Social Sustainability Reporting. On the other hand, there is a significant negative relationship between the existence of a Sustainability Committee, and Social Sustainability Reporting of listed Oil and Gas firms in South Africa at 5% level of significance respectively.

Recommendations

Based on the findings of this study, the following were suggested:

1. Considering the positive relationship between Stand-Alone Report and Sustainability Reporting, Oil and Gas companies in both countries should sustain the habit of publishing stand-alone sustainability reports which could enhance public confidence and promote the public image of the Oil firms locally and internationally.
2. In order to reverse the negative relationship between the existence of a Sustainability Committee and Sustainability Reporting, Sustainability Committee should become more participatory active, holding frequent meetings to exhaust issues affecting the

Oil firms operations and the host environments. The more often the audit committee meets and interacts with host communities, the more robust findings that could be made, and the better the response and disclosures that will follow.

REFERENCES

- Abdulsalam, N.K., & Babangida, M.A. (2020). Effect of sales and firm size on sustainability reporting practice of oil and gas companies in Nigeria. *Journal of Research in Business and Management*, 8(1), 01-08.
- Abdulsam, N.K., Abdulrahman, B.S., Garba, I.T., Mohammed, A.B. & Abubakar, S.Y. (2020). The implication of corporate social cost on the profitability of oil marketing companies in Nigeria. *IOSR Journal of Business and Management*, 22(1), 01-08.
- [Agyemang, A.O.](#), [Yusheng, K.](#), [Ayamba, E.C.](#), [Twum, A.K.](#), [Chengpeng, Z.](#), & [Ali, S.](#) (2020). Impact of board characteristics on environmental disclosures for listed mining companies in China. *Environmental Science and Pollution Research*, 27, 21188–21201.
- Alberici, A., & Querci, F. (2016). The quality of disclosures on environmental policy: The profile of financial intermediaries. *Corporate Social Responsibility and Environmental Management*, 23(5), 283– 296.
- Al-Shaer, H. (2020). Sustainability reporting quality and post-audit financial reporting quality: Empirical evidence from the UK. <https://onlinelibrary.wiley.com/doi/full/10.1002/bse.2507>. Accessed 14/08/2020
- Aman, Z., & Ismail, S. (2017). The determinants of corporate sustainability reporting: Malaysian evidence. *Proceeding of the 4th International Conference on Management and Muamalah 2017 (ICoMM 2017)*, 92-106.
- Amahalu, N.N., Ezechukwu, B. O., & Obi, J.C. (2017). Corporate social responsibility and financial performance of quoted deposit money banks in Nigeria. *Asian Journal of Science and Technology*, 08(12), 7183-7191.
- Anas, A., Abdul-Rashid, H.M., & Annuar, H.A. (2015). The effect of award on CSR disclosures in annual reports of Malaysian Plc. *Social Responsibility Journal*, 11(4), 831–852.
- Arda, O.A., Bayraktar, E., & Tatoglu, E. (2019). How do integrated quality and environmental management practices affect firm performance? Mediating roles of quality performance and environmental proactivity. *Business Strategy and the Environment*, 28(1), 64– 78.
- Biswas, P.K., Mansi, M., & Pandey, R. (2018). Board composition, sustainability committee and corporate social and environmental performance in Australia. *Pacific Accou*
- Braam, G., & Peeters, R. (2017). Corporate sustainability performance and assurance on sustainability reports: Diffusion of accounting practices in the realm of sustainable development. *Corporate Social Responsibility and Environmental Management*, wileyonlinelibrary.com. Accessed 30/09/2020.
- Braam, G., & Peeters, R. (2018). Corporate sustainability performance and assurance on sustainability reports: Diffusion of accounting practices in the realm of sustainable development. *Corporate Social Responsibility and Environmental Management*, 25(2), 164-181.
- Burke, J.J., Hoitash, R., & Hoitash, U. (2019). The heterogeneity of board-level sustainability committees and corporate social performance. *Journal of Business Ethics*, 154(4), 1161– 1186.
- Clarkson, P. M., Li, Y., Richardson, G.D., & Vasvari, F.P. (2011). Does it really pay to be green? Determinants and consequences of proactive environmental strategies. *Journal of Accounting and Public Policy*, 30(2), 122– 144.
- Corvino, A., Doni, F., & Martini, S.B. (2020). Corporate governance, integrated reporting and environmental disclosure: Evidence from the South African context. *Sustainability*, 12(4820), 1-19.

- Corvino, A., Doni, F., & Martini, S.B. (2020). Corporate governance, integrated reporting and environmental disclosure: Evidence from the South African context. *Sustainability*, 12, 4820.
- Dixon-Fowler, H.R., Ellstrand, A.E., & Johnson, J.L. (2017). The role of board environmental committees in corporate environmental performance. *Journal of Business Ethics*, 140(3), 423–438.
- Ezejiofor, R. A., (2018). Effect of IFRS on value relevance of accounting information: evidence from quoted manufacturing firms in Nigeria. *International Journal of Trend in Scientific Research and Development (IJTSRD)*. 2(5) ISSN No: 2456 – 6470; www.ijtsrd.com.
- El-Ghoul, S., Guedhami, O., Wang, H., & Kwok, C.C. (2016). Family control and corporate social responsibility. *Journal of Banking and Finance*, 73, 131–146
- Eriabie, S., & Odia, J. (2016). The influence corporate governance attributes on corporate social and environmental disclosure quality in Nigeria. *ESUT Journal of Accountancy*, 7(1), 217-235.
- Fonseca, C.N. (2020). Sustainability committee. <https://www.galp.com/corp/en/corporate-governance/governing-model-and-bodies/committees/sustainability-committee>. Retrieved 19/08/2020.
- Gavana, G., Gottardo, P., & Moisello, A.M. (2017). Sustainability reporting in family firms: A panel data analysis. *Sustainability (Switzerland)*, 9(1), 1-18.
- GRI. (2016). GRI sustainability reporting 2016 sustainability performance. CRODA GRI Report Archive. <https://www.croda.com/en-gb/sustainability/gri-report/gri-report-archive>. Accessed 03/09/2020.
- Haque, F., & Ntim, C.G. (2018). Environmental policy, sustainable development, governance mechanisms and environmental performance. *Business Strategy and the Environment*, 27(3), 415-435.
- Hargrave, M. (2020). Stand-alone profit. https://www.investopedia.com/terms/s/standalone_profit.asp. Assessed 01/09/2020.
- Hashmi, M.A., Brahmana, R.K., & Lau, E. (2018). Political connections, family firms, and earnings quality. *Management Research Review*, 41(4), 414–432.
- Hayes, A. (2019). Investment center. <https://www.investopedia.com/terms/i/investment-center.asp>. Retrieved 11/05/2020
- Hayes, A. (2020). Leverage. <https://www.investopedia.com/terms/l/leverage.asp>. Accessed 21/08/2020.
- Hu, M., & Loh, L. (2018). Board governance and sustainability disclosure: A cross-sectional study of Singapore listed companies. *Sustainability*, 10(7), 2578.
- Hussain, N., Rigoni, U., & Orji, R.P. (2018). Corporate governance and sustainability performance: Analysis of triple bottom line performance. *Journal of Business Ethics*, 149(2), 411–432.
- Khaled, S., Khlif, H., & Hussainey, K. (2020). The impact of board and audit committee characteristics on voluntary disclosure: A meta-analysis. *Journal of International Accounting Auditing and Taxation*, 1(1), 1-35.
- Kiliç, M., & Kuzey, C. (2018). Factors influencing sustainability reporting: evidence from Turkey, 139-175
- King'or, P.G., Naibei, I.K., Sang, H.W., & Kipkosgei, A.K. (2019). The relationship between board characteristics and environmental sustainability disclosures. *International Journal of Economics, Commerce and Management*, 7(9), 416-430
- Laine, M., (2019). Ensuring legitimacy through rhetorical changes? A longitudinal interpretation of the environmental disclosures of a leading Finnish chemical company. *Accounting, Auditing & Accountability Journal*, 22(7), 1029-1054.

- Lamb, N.H., & Butler, F.C. (2018). The influence of family firms and institutional owners on corporate social responsibility performance. *Business and Society*, 57(7), 1374–1406.
- [Laskar](#), N. (2019). Does sustainability reporting enhance firms' profitability? A study on select companies from India and South Korea. <https://journals.sagepub.com/doi/abs/10.1177/0974686219836528>. Accessed 23/02/2020
- Laskar, N., Chakraborty, T.K. & Maji, S.G. (2017). Corporate sustainability performance and financial performance: Empirical evidence from Japan and India. *Management and Labour Studies*, 42(2) 1–19
- Lin, M., & Suvrit, S. (2014). Completely strong super additivity of generalized matrix functions. [arXiv:1410.1958](https://arxiv.org/abs/1410.1958) [[math.FA](#)].
- Malik, V. (2020). Standalone vs consolidated financials: A complete guide. <https://www.drviyaymalik.com/2018/07/standalone-vs-consolidated-financials.html>. Retrieved 01/09/2020.
- Margalit, D., & Rabinoff, J. (2020). Interactive linear algebra. <https://textbooks.math.gatech.edu/ila/determinants-definitions-properties.html>. Retrieved 01/09/2020.
- Marques, M.A. (2020). Sustainability committee. <https://www.galp.com/corp/en/corporate-governance/governing-model-and-bodies/committees/sustainability-committee>. Retrieved 19/08/2020.
- Marshall, H. (2020). Sum-of-the-parts valuation. <https://www.investopedia.com/terms/s/sumofpartsvaluation.asp>. Retrieved 01/09/2020
- McNally, M.A., Cerbone, D. & Maroun, W. (2017). Exploring the challenges of preparing an integrated report. *Meditari Accountancy Research* 31(3), 240-254.
- Merve, K., & Kuzey, C. (2020). Factors influencing sustainability reporting: evidence from Turkey. <file:///C:/Users/HP/AppData/Local/Temp/SSRN-id3098812-1.pdf>. Retrieved 27/08/2020.
- Mohammad, A.G., Mohamad, N.R., & Ahmad, N. (2016). Board characteristics and corporate social responsibility disclosure in the Jordanian banks. *Corporate Board: Role, Duties & Composition*, 12 (1), 84-100.
- Najul, L. (2019). Does sustainability reporting enhance firms' profitability? A study on selected companies from India and South Korea. *Indian Journal of Corporate Governance*, 12(1) 2–20.
- Nechita, E. (2021). Analysis on sustainability reporting and earnings management practices. Evidence from an emerging economy. www.preprints.org. Accessed 24/06/2021
- Nwobu, A.O. (2017). Determinants of corporate sustainability reporting in selected companies in Nigeria. A Thesis Submitted to the Department of Accounting, Covenant University, 34-93.
- Nzekwe, O.G., Okoye, P.V.C., & Amahalu, N.N. (2021). Effect of sustainability reporting on financial performance of quoted industrial goods companies in Nigeria. *International Journal of Management Studies and Social Science Research*, 3(5), 265-280.
- Ojiakor, I., Ezuwore, C.N., & Ozioko, B. (2018). Environmental cost disclosure in the financial statements of motor vehicle manufacturing firms in South East Nigeria. *IJSAR Journal of Advanced Management and Social Sciences (IJSAR-JAMSS)*, 5(3), 286-300
- Okudo, A.G., & Amahalu, N.N. (2021). Corporate governance and carbon disclosure practices of quoted manufacturing firms in Nigeria. *International Journal of Contemporary Research and Review*, 12 (07), 20420-20433.

- Ong, T., & Djajadikerta, H.G. (2017). Impact of corporate governance on sustainability reporting: Empirical study in the Australian resources industry. *School of Business and Law, Edith Cowan University, Australia*.https://papers.ssrn.com/sol3/papers.cfm?Abstract_id=2902495
- [Orazalin, N.](#), & [Mahmood, M.](#) (2019). Determinants of GRI-based sustainability reporting: Evidence from an emerging economy. *Journal of Accounting in Emerging Economies*, 10(1), 140-164.
- Ozigi, O., Ridzwana, B.M., & Zaidi, B.M. (2017). Determinants and level of corporate sustainability disclosure on employees in Malaysia. *International Journal of Economics, Commerce and Management* 5(12), 218-235.
- Oraka, A. O., Okoye, J. A. & Ezejiofor, R. A. (2019). Determinants of financial reporting timeliness: an empirical study of Nigerian deposit money banks. *International Journal of Advanced Academic Research | Social and Management Sciences* 5(9). ISSN: 2488-9849.
- Okoye, P. V.C., & Ezejiofor R.A., (2014). Effect of adoption of IFRS on the Stock Performance Implications on Investor's Expectations. *Research Journal of Finance and Accounting* ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online) 5(4); www.iiste.org
- Oshiole, S., Elamah, A.F., & Amahalu, N.N. (2020). Effect of environmental cost disclosure on profitability of listed oil and gas firms in Nigeria. *International Journal of Academic Research in Accounting, Finance and Management Sciences* 10(2), 157-170.
- Pobbi, M., & Anaman, E.A., & Quarm, R.S. (2020). Corporate sustainability reporting: Empirical evidence from Ghana. *Journal of Economics and Business*, 3(3), 137-149.
- Poole, D. (2020). *Linear Algebra: A Modern Introduction* (2nd ed.), Brooks/Cole.
- Post, C., Rahman, N., & McQuillen, C. (2015). From board composition to corporate environmental performance through sustainability-themed alliances. *Journal of Business Ethics*, 130(2), 423– 435.
- Odrigue, M., Magnan, M., & Cho, C.H. (2013). Is environmental governance substantive or symbolic? An empirical investigation. *Journal of Business Ethics*, 114(1), 107– 129.
- Rossi, A., & Tarquinio, L. (2017). An analysis of sustainability report assurance statements: Evidence from Italian listed companies. *Managerial Auditing Journal*, 32(6), 578-602.
- Shahab, Y., Ntim, C. G., Chengang, Y., Ullah, F., & Fosu, S. (2018). Environmental policy, environmental performance, and financial distress in China: Do top management team characteristics matter? *Business Strategy and the Environment*, 27(8), 1635– 1652.
- Shaukat, A., Qiu, Y., & Trojanowski, G. (2016). Board attributes, corporate social responsibility strategy, and corporate environmental and social performance. *Journal of Business Ethics*, 135(3), 569-585.
- Tanyi, P.N., & Smith, D.B. (2015). Busyness, Expertise, and financial reporting quality of audit committee chairs and financial experts. *Auditing: A Journal of Practice & Theory*, 34(2), 59–89.
- Tavares, D.M. (2020). Sustainability committee.<https://www.galp.com/corp/en/corporate-governance/governing-model-and-bodies/committees/sustainability-committee>. Retrieved 19/08/2020.
- Umukoro, O.E., Uwuigbe, O.R., Uwuigbe, U., Adegboye, A., Ajetunmobi, O., & Nwaze, C. (2019). Board expertise and sustainability reporting in listed banks in Nigeria. *IOP Conf. Series: Earth and Environmental Science*, 331, 1-10

- Walls, J.L., Berrone, P., & Phan, P.H. (2012). Corporate governance and environmental performance: Is there really a link? *Strategic Management Journal*, 33(8), 885– 913.
- Wang, X., Shen, X., & Yang, Y. (2020). Does environmental information disclosure make firms' investments more efficient? Evidence from measure 2007 of Chinese A-listed companies. *Sustainability*, 12(1895), 1-16
- WBCSD.(2014). *World business council for sustainable development*. [online]. Available at: <http://www.wbcsd.org/>. [Accessed: 20. April 2014].
- Wynberg, R. (2019). A decade of biodiversity conservation and use in South Africa: Tracking progress from the Rio Earth Summit to the Johannesburg World Summit on Sustainable Development. *South African Journal of Science*, 98(5&6), 223-243.
- Xue, F.T. (2017). A Comparative review on company specific determinants for sustainability reporting in United Kingdom (UK) and Malaysia. SHS Web Conf, *The 2016 4th International Conference on Governance and Accountability (2016 ICGA)*, 36(12), 12
- Yue, J. (2014). All you need to know about sustainability committees. <https://corporate-citizenship.com/2014/08/06/need-know-sustainability-committees/>. Retrieved 30/08/2020.
- Yusoff, H., Darus, F., & Rahman, S. A. (2015). Do corporate governance mechanisms influence environmental reporting practices? Evidence from an emerging country. *International Journal of Business Governance and Ethics*, 10(1), 76.
- Zou, H.L., Zeng, S.X., Xie, L.N., & Zeng, R.C. (2020). Are top executives rewarded for environmental performance? The role of the board of directors in the context of China. *Hum. Ecol. Risk Assess. Int. J.*, 21, 1542–1565.