UMYU Journal of Accounting and Finance Research. Vol.5 No.1 June 2023, pp 124-140.
https://doi.org/10.61143/umyu-jafr.5(1)2023.010

ISSN: 2795-3831
E-ISSN: 2795-3823

DETERMINANTS OF CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE: EVIDENCE FROM LISTED CEMENT COMPANIES IN NIGERIA.

***Mohammed Lawal Danrimi, PhD[1] and Umar Aliyu[2].**

[1]Department of Accounting, Faculty of Social and Management Sciences, Umaru Musa Yar'adua University, Katsina, Nigeria.

[2]Department of Acconting, College of Social and management Sciences, Al-Qalam University, Katsina, Nigeria.

Corresponding Address: lawal.danrimi@umyu.edu.ng.

Abstract

This study examines the determinants of corporate social responsibility disclosure by listed cement companies in Nigeria. The main problem which the study has addressed is variable inclusion gap which has been observed in the previous literature on the factors that influence corporate social responsibility disclosure by listed cement companies in Nigeria. A were also collected from the annual reports and accounts and further analyzed using generalized least square (GLS) Regression. The study found a positive and significant relationship between profitability and corporate social responsibility disclosure by listed cement companies in Nigeria. With respect to firm size, the study also found a positive and statistically significant relationship with corporate social responsibility disclosure. The study recommends that listed cement companies should employ more resources and competent manpower towards the attainment of wealth maximization, as this will enhance the companies' disclosure level to corporate social responsibility.

Keywords: *Profitability, Firm size, Firm Age, Corporate Disclosure, Cement companies.*

INTRODUCTION

The most important motive of corporate disclosure is to reduce the agency problem and, consequently, reduce information asymmetry between corporate management and shareholders. Transparency and disclosure represent one of the pillars of corporate governance. Several scandals have occurred worldwide due to lack or improper corporate disclosures. Different stakeholders use corporate social responsibility disclosure in their decision-making process (Khlifi & Bouri, 2010).

Corporate disclosure falls into two broad categories: mandatory and voluntary. Mandatory disclosure consists of information disclosed in order to comply with the requirements of lawsand regulations. While voluntary disclosure on the other hand is any information disclosed inaddition to the mandatory disclosure. Voluntary disclosure has been defined by Meek et al. (1995) as "free choices on the part of company managements to provide accounting and otherinformation deemed relevant to the decision needs of users of their annual reports." Moreover,voluntary disclosure may include disclosure recommended by an authoritative code or body.

Corporate information can be represented across a variety of voluntary communicationsources including magazines, newspapers, press reports, stockbrokers' advice, letters to shareholders, management forecasts, analysts' presentations, employee reports, interim reports, and annual reports (Healy & Palepu, 2001).

But in recent years, disclosure requirements have increased to verify an organization's performance as the disclosure of the information is so essential to many stakeholders, such as investors, shareholders, regulators, government agencies, and communities (Al Amosh, 2021). This has indeed prompts entities to open up to various parties by providing more voluntary disclosures in addition to mandatory disclosures (Noh & Weber, 2019). Mandatorydisclosure is a legal requirement within the regulatory legislation regulating the work of companies issued by official bodies such as stock exchanges and the securities commission inthe countries, other than voluntary disclosure, which provides information that goes beyond the limits of mandatory disclosure.

However, it has been observed that, among all other sources, annual reports and accounts is perceived to be the most important, frequent and major source of information to many users in both developed and developing countries, (Botosan, 1997; Akhtaruddin, 2005; Chau & Gray, 2010). Moreover, the annual reports provide a core public disclosure source of information, even though other reports and company websites may provide additional information, but the annual report is considered the only formal source of information in manydeveloping countries (Naser & Nuseibeh, 2003), although shareholders might have access andget information directly through contacting companies' management (Naser & Nuseibeh, 2003).

Information disclosure is influenced by internal and external factors. Internal factors include the firm's characteristics, such as firm size, industry type and listing status. External factors on the other hand are related to the environmental context, such as culture and the legal system. Evidence from several empirical studies demonstrates that firm characteristics influence the level of corporate disclosure. The main corporate characteristics include the typeof activity (Cooke, 1992), firm size, leverage (Ahmed and Courtis, 1999), profitability, liquidity and cross listing (Cooke, 1992).

The field of corporate disclosure has grown significantly and today contains a significant proliferation of theories, approaches, and terminologies. Several theories have been introduced in explaining the complex nature of this field, each of which explains different sub-points of financial disclosure. However, a challenge lies in formulating a theoretical framework that could be used to study the relative importance of each of the organizational aspects affecting corporate disclosure practices (Chau & Gray, 2001). Furthermore, prior research fails to provide an accurate measure ofreporting quality due to the lack of convincing theoretical underpinning and the subjectivity that surrounds the developed proxies (Khan, Ali, & Fatima, 2014). In the published literature,no attempt at such a comprehensive mapping was found, thus deductively, the gap was recognized.

The review of an existing literature is one of the scientific research methods based on surveying

scientific publications on a specific issue, prompting a view of current research trends, highlighting research gaps in the current literature. The methods of reviewing the disclosure literature varied, some studies have examined the factors affecting disclosure in theliterature (Ali, *et al.*, 2017), and other research reviewed the methodology used to collect datain the disclosure literature, while some researchers have focused on reviewing the checklist used to measure disclosure (Hassan & Marston, 2019). Few old studies have evaluated the theoretical frameworks applied in the literature. In recent years, the literature has not developed new theoretical directions to explain the phenomenon of detection, such as plannedbehavior theory and neo-institutional theory.

Evidence from empirical studies on the relationship between determinants of corporate social responsibility is quite mixed, and the findings have varied, and makes it inconclusive. When you consider profitability as a variable for example, some studies have found it to be positivelyrelated with corporate social responsibility (CSR) disclosure requirements. But some studies on the other hand have found it to be negatively related to CSR disclosurerequirements.

However, company size, is seen as one of the predominant variables which most of the studieson factors affecting CSR disclosure have used, but still the findings are mixed. Some studiedfound it to be statistically and positively related as explained by the agency theory (Jensen and Meckling, 1976). Larger firms tend to have higher agency costs because of higher information Asymmetry between theprincipal (shareholders) and the agent (managers). Also, as the outside capital, agency costs have a tendency to increase. Therefore, to reduce agency costs, larger firms are likely to disclose more information.

Furthermore, company's age has also been added as a variable to determine or influence CSR disclosure in the listed cement companies in Nigeria, which based on the review made by the researcher, there are is a variable inclusion gap in the previous studies in Nigeria have used company's age as a determinant of CSR disclosure. This has left a research gap which the researcher intends to fill. The researcher is therefore motivated by the above gaps in CSR disclosure research, and make an attempt to provide an empirical support and assess the determinants of CSR disclosure in the listed cement companies in Nigeria.

Cement companies in Nigeria have significant impact on the nation's economy. The sector contributes to the nation's GDP annually (NBS report, 2012). It could literally assume to havea vast potential for a spot for economic development due to abundant labour force coupled with the vast natural resources which the country endowed with. Nevertheless, the sector facesongoing challenges, including inadequate electricity supply, poor infrastructure and plant maintenance. Against this backdrop that this study examines the determinants of corporate social responsibility by the listed cement companies in Nigeria. For a period of 2012 to 2021.

However, the findings of the study would be useful to have better understanding on thedeterminants of CSR that encourage listed cement firms in Nigeria to disclose more social responsibility information. On the same vein, the study will encourage and motivate companies in Nigeria to pay more attention and invest more regarding corporate social responsibility related activities. The rest of the paper is structured as follows: section two presents the literature review

https://doi.org/10.61143/umyu-jafr.5(1)2023.010
ISSN: 2795-3831
E-ISSN: 2795-3823

and theoretical framework. Section three will take care of the methodology adopted for the study. Section four will discuss the results from the model applied, and finally chapter five will present conclusions and recommendations.

LITERATURE REVIEW

Determinants of corporate social Responsibility Disclosure

The accounting and financial literature has focused on the relationship between corporate characteristics and corporate disclosures since 1961 (Ahmed & Courtis, 1999). The previous literature was also interested in examining the relationship between CSRD and corporate characteristics. Some studies have investigated the relationship between corporate characteristics (size, industry, and profitability) and specific types of disclosures. Their samplewas based on 134 U.S. companies from 10 different industries, they have also categorised social disclosures into environment, human resources, products, energy, community involvement, and fair business practices. The result showed that firm size has a positive and significant effect on environment disclosures, community involvement, energy, and fair business practice disclosures, while product and human resources did not change. Moreover, industry type was found to have a significant influence on community involvement and energy, whilst the rest of the categories were not affected.

The Concept of Corporate Disclosure

Communication is a reciprocal relationship of transmitting information between two or more parties. Information is a new knowledge that facilitates making of a decisions. Disclosure, onthe other hand, is a spoken and/or written and/or visual presentation of a situation, activity orevent, providing (necessary) information to a specific or public audience. Disclosure has alsobeen defined as 'information or a fact that is made known or public that was previously secretor private'. More specifically, Choi (1973) defines corporate disclosure as the production of any economic information relating to a company which leads to an enhancement of the investment decision-making process. This definition is limited to disclosure that facilitates investment decisions, ignoring other aspects of business activity. Cooke (1989) offers a moreextensive definition for corporate disclosure as 'those items in corporate annual reports that are relevant and material to the decision-making process of users who are unable to demand information for their particular needs'. Disclosure covers the whole area of financial reporting,including both financial statements and their supplemental information. Disclosure is also defined as "the communication of economic information, whether financial or nonfinancial, quantitative or otherwise concerning a company's financial position and performance" (Owusu-Ansah, 1998).

Similarly, some scholars define the concept of disclosure as the information reported in both financial statements and supplementary communications such as footnotes, post-statement events, financial and operating forecasts, and additional financial statements covering segmental disclosure. This definition is broadly limited to disclosure across financial aspects.This thesis argues that disclosure is a broad concept. It goes beyond annual reports, coveringissues outside financial statements, and could relate to issues such as corporate governance, HR, and social and

ISSN: 2795-3831
E-ISSN: 2795-3823

environmental information.

DEVELOPMENT OF HYPOTHESIS

Profitability

The pioneer study on accounting disclosure is Cerf (1961). Since then, a preponderance of research has been conducted on the subject in developed and developing countries alike. Eachof these studies has been distinguished by the differences in the research setting, the differences in the definition of explanatory variables, differences in disclosure index construction and differences in statistical analysis (Umoren, 2009).

Cerf (1961) examines the level of disclosure in annual reports of US companies consisting ofthose listed on the New York Stock Exchange and other unlisted companies traded in over- the-counter (OTC) markets. Cerf investigated the relationship between four company variables (total assets, number of shareholders, profitability and listing status) and disclosurelevel. He developed a disclosure index based on 31 items of accounting information selectedby a scale of 1 to 4 assigned to items in the interview with financial analysts. Using class means, Cerf revealed that a positive and significant relationship exists between asset size, profitability, and number of shareholders and disclosure level. Cerf also observed superiorityof the companies listed on the NYSE over others. There was, however, no significant difference in the reporting pattern.

In Saudi Arabia, Naser and Nuseibeh (2003) examine the quality of disclosure of nonfinancial companies listed on the Saudi Stock Exchange. This study was a sequel to the introduction ofa law permitting foreign investors into the Saudi capital market. "Central to this developmentis the annual reports published by companies operating in Saudi Arabia (Umoren, 2009 p.39)".The study used both weighted and unweighted indices comprising 23 items of mandatory information, 18 items of voluntary information related to mandatory information, and 14 items of voluntary information unrelated to mandatory disclosure. The results of the estimation exercise show a relatively high compliance with the mandatory requirements in allindustries covered by the study, with the exception of the electricity sector. As for the voluntary disclosure, the analysis reveals that Saudi companies disclose information more than the minimum required by law. The level of voluntary disclosure, however, is relatively low.

Corporate disclosure studies have also been done in Nigeria. Wallace (1987) is reputed for pioneering corporate disclosure research in Nigeria. He examined the extent of disclosure using statutory and voluntary disclosure items. His choice of information items was relevant to the selected user groups used for the study which consists of accountants, top civil servants,managers, investors and other professionals. A sample of 47 firms, accounting for 54% of the entire companies quoted on the Nigerian Stock Exchange during 1982 and 1986 was used. Disclosure was treated as a dichotomous item, 1 for an item disclosed and 0 for those not disclosed. The scoring system is informed by its intensity. Both weighted and unweighted disclosure checklists were constructed. The weighted disclosure index reflects the preferencesof the six-user groups. The result of the analysis revealed that companies which publish annualreports do not adequately comply with the disclosure regime. The overall disclosure index revealed the weakness in the

https://doi.org/10.61143/umyu-jafr.5(1)2023.010
ISSN: 2795-3831
E-ISSN: 2795-3823
disclosure practice in Nigeria, ranging from 37.55% to 43.11%.A significant degree of disclosure was observed in the balance sheet, historical items, and valuation methods. However, status data, social reporting, income statement items andprojections witnessed inadequate disclosure.

H_{01}: Profitability has no significant impact corporate social responsibility disclosure bythe listed cement companies in Nigeria.

Firm Size

Okike (2000) surveys the corporate reporting practices in Nigeria. The study sought to examine the adequacy of accounting disclosure in Nigeria. She concluded that accounting reports in Nigeria are weak and lacking in vital information, and thus, should be expanded toinclude a vast array of information useful for users‟ decision making. Also in Nigeria, Ofoegbu and Okoye (2006) investigating the relevance of accounting and auditing standards in corporate reporting in Nigeria sought to examine the degree to which selected Statement ofAccounting Standards (SAS), namely SAS 3, 7, 8, 10, 11, 18 and 19 complied with in Nigeria.Using the annual reports of 41 quoted companies on the Nigerian Stock Exchange, the study revealed mixed results of compliance with disclosure requirements. For example, absolute compliance (100%) was recorded for items such as the basis of determining book value of assets, cash flow presentations, disclosure of various forms of tax and movements of taxes and assets during the year. Partial compliance (ranging from 2% to 90%) was recorded for 93 items such as commission paid/received, maturity profile of risk asset of banks, frequency ofrevaluation policy and amount of foreign exchange gain or loss.

Kantudu (2006) explores the extent of compliance with requirements of SAS 2 by firms quoted on the Nigerian Stock Exchange. The study covered 16 sectors of the Nigerian economy out of which 25 companies were randomly selected for a period of 5 years (1998- 2003). Data collected were analyzed using the qualitative grading system. The findings showed a significant compliance level with SAS 2 by the sampled company. This connotes that there was no significant difference between the disclosure requirement of SAS 2 and the content of the annual reports of the investigated firms.

Umoren (2009) investigates the level of compliance of financial and nonfinancial companieswith the SAS disclosure and IFRS/IAS disclosure not contained in the SAS and the consequences of noncompliance with the disclosure requirements of SAS and IFRS/IAS by the Nigerian quoted companies. For SAS disclosure, while the results of the content analysisof the annual reports revealed that financial companies comply more that their nonfinancial counterparts, the independent sample t-test results showed that there is no significant difference in disclosure level for financial and nonfinancial listed companies. On the extent of compliance of listed financial and nonfinancial firms with the required disclosure of IAS/IFRS that are not contained in the SASs, the content analysis showed that financial companies comply more than the nonfinancial companies. Similarly, the result of the independent sample t-test revealed a significant level of disclosure between financial and non-financial firms with the former exhibiting more compliance level. “The compliance of the financial firms may be attributed to the growth in the capital base

https://doi.org/10.61143/umyu-jafr.5(1)2023.010
ISSN: 2795-3831
E-ISSN: 2795-3823

and global competition with fostered the application of relevant international accounting standards" (Umoren, 2009 p. 168).

Umoren (2009) also explores the relationship between firm attributes and corporate disclosure using company size, profitability, leverage, company age, industry type, size of audit firm, number of shareholders and multinational affiliation. Survey and content analysis methods were adopted in collecting the data used for the study. For the survey method, questionnaireswere administered to a random sample of auditors, accountants and accounting information users (bankers, stockbrokers, financial analysts and educators) from the six geopolitical zonesin Nigeria. For the content analysis, the extent of compliance by Nigerian listed companies was measured using the disclosure index of90 listed companies. The companies were selectedusing the stratified random sampling. The findings of the study showed that only size, auditor type, and multinationality were significant positive determinants of overall corporate disclosure of companies.

Umoren and peace (2011) investigate the association between corporate governance, company attributes and voluntary disclosures among Nigerian listed companies. In order to examine this association, two disclosure indexes (weighted and unweighted) were built using a sampleof 50 listed companies in Nigeria. The first index contains twenty items which are mandatoryaccording to a number of selected IFRS but which are voluntary in Nigeria for the year 2008.The second index contains sixty voluntary accounting and non-accounting items. The study uses univariate, multivariate and cross-section models to explore the relationship between each disclosure index and corporate attributes. The corporate attributes are the independent variables comprising corporate governance and company characteristics. The results of the regression analysis revealed that only board size has a significant positive relationship with the extent of voluntary disclosures on the sample companies. The board composition, leverage, company size, profitability, and auditor type have a statistically positive andinsignificant impact on disclosures. The effect of board ownership is positive for IFRS disclosures but negative and insignificant for Non-IFRS disclosures while the sector is negative for both disclosures and significant.

Uwuigbe, (2011) investigates the link between firm characteristics and the level of corporate social disclosures in the Nigerian financial sector. Using the judgmental sampling technique, a total of 31 listed firms have been selected for the study based on their level of market capitalization and direct financing of most firms from the manufacturing industry. Also, usingthe content analysis method, a scoring scheme is used for measuring the extent of corporate social disclosure in the annual report. Three variables were used in the study: firm's size, profitability, and size of the audit firm. The study observed that a positive association exists between a firm "s characteristics and the level of corporate social disclosure. In addition, the paper also observes that corporate social disclosures by listed firms are still in its infancy.

Abdullahi (2012) examines the extent to which Nigerian Deposit Money Banks (DMBs) comply with the disclosure requirements of SAS 10 and to determine whether the NASB, Act 2003 enhances compliance with SAS 10. The study population is the then twenty-four (24) listed banks among which eleven (11) were selected. The study covers the period from1998 to2002 and 2004

ISSN: 2795-3831
E-ISSN: 2795-3823

to 2008 with 2003 as the base year. And content analysis was used in collecting the data from the annual accounts of the selected banks. To test the hypothesis developed for the study, the researcher utilizes unweighted disclosure index. The result, however, reveals that the Nigerian DMBs do not adhere to the statutory disclosure requirements of SAS 10 but NASB act, 2003 enhances compliance with the said SAS.

H_{02}: Firm size has no significant impact corporate social responsibility disclosure by the listed cement companies in Nigeria.

Firm Age

Adekunle and Asaolu (2013) survey financial reporting practice among banks in the post-consolidation period. The sample size is the 13 listed Nigerian banks out of 21 registered banks in the period under examination. The researchers also develop composite disclosure Index (CDI) in collecting the data from annual accounts between 2005 and 2009 based on the statutory requirements of the SAS. Descriptive statistics and OLS were used in the analysis. The research results indicate a high level of compliance with the mandatory disclosure requirements for banks by scoring high on the CDI (mean in excess of 90%). In addition, theregression results showed that disclosure has a positive and significant influence on banks stability (as defined by ROA and liquidity).

Ibrahim (2014) examines the extent of compliance of the Nigerian Deposit Money Banks withthe disclosure requirements of accounting standards (SASs) for the year ended 31st December2011. In addition, the study further investigated the corporate attributes that determine the degree of disclosure by Nigerian Deposit Money Banks. A sample of 9 DMBs was selected and standards (SAS 2, 10 and 15 respectively) were utilized in the study. A researcher- developed checklist containing 34 information disclosure items (SAS 23 items and voluntary 11 items) was constructed. The corporate characteristics selected for the study are company size, leverage, profitability, auditor type, company age, and multinationality. Empiricalfindings from the content analysis of the annual reports of the tested banks revealed that thereare strong and full compliance with the disclosure requirements of the SASs. The findings further showed that the selected DMBs do not disclose voluntary information. The study also revealed that there exists a significant association between the level of disclosure and some company characteristics. Corporate size and auditor type are found to be statistically significant determinants of corporate disclosure. While the other four variables of leverage, profitability, age, and multinationality are found to be statistically insignificant determinants of disclosure by the Nigerian DMBs

H_{03} company age has no significant impact on corporate social responsibility disclosureby the listed cement companies in Nigeria

Theoretical Framework of Corporate Disclosure

There are now various existing theories supporting the practice of corporate disclosure circulating amongst accounting researchers. Although the existing theories can all be seem logical, they are deficient as far as none of them stand out as superior to any others in explaining corporate

disclosure practices. The purpose of this section is to review three of thekey corporate disclosure theories that have been developed and see how they explain the reactions and response of the corporations. These theories can be seen as overlapping to a certain degree, They are, legitimacy theory, stakeholder theory, and agency theory (Hackston& Milne, 1996).

Legitimacy theory

The concept on which legitimacy theory is based is the notion of a social contract. In other words, when a business operates within a society, a tacit agreement is implies that company should endeavour, in its business practices, to behave in socially and environmentallyresponsible ways in exchange for public approval, which it needs in one degree or another inorder to survive (Michelon, Pilonato, & Ricceri, 2015).

The two basic ideas on which legitimacy theory is based are that 1) organisations need to 'legitimise' their activities, and 2) the process of obtaining legitimacy can have certain important benefits for firms. The first aspect is consistent with the idea which corporate disclosure is connected to the existence of social pressure on corporations. This means that the need for legitimacy may not be the same for every firm as organisations may experience different levels of social pressure. The various factors, which contribute to the level of pressure a company faces and how they respond to it determines its disclosure practices. Thesecond aspect includes not only potential benefits of engaging in a corporate disclosure but also possible consequences if a company fails to do so. Therefore, legitimacy theory provides a framework for explaining corporate disclosure practice.

According to Jenkins (2004), legitimacy theory ought to be considered the dominant explanation for why companies choose to disclose information about their activities. Such disclosure is often left to managerial discretion, which may otherwise be likely to ignore the rights of stakeholders and the public in general to have access to such information, as large corporations can have an extensive impact on communities and environments. It was also found that legitimacy theory is the highest theory has been used by researchers as a framework(Ali *et al.*, 2017).

Empirically, legitimacy theory has been extensively studied in the current literature by a number of researchers that are interested in corporate disclosure behaviours and the reasons behind it (e.g. Ahmad & Sulaiman, 2004; Tsang, 1998; Ali *et al.*, 2017).

The main assumptions of legitimacy theory appear to offer at least a partial explanation as towhy corporations choose to disclose (or not) information about their social or environmental activities. However, some scholars asserts that due to its basis in the notion of the bourgeoispolitical economy, the theory fails to be comprehensive in its explanations. Legitimacy theory and stakeholder theory are closely related. The increasing popularity of stakeholder theory hasfuelled public demands for demonstrations of legitimacy, and this has led to increased acknowledgement that a company's actions affect more than just its shareholders.

https://doi.org/10.61143/umyu-jafr.5(1)2023.010
ISSN: 2795-3831
E-ISSN: 2795-3823

Stakeholder theory

Stakeholder theory was first applied to the concept of corporate disclosure in the 1960s and 70s. This led to the addition of many new ideas being added to the literature on corporate disclosure practice regarding the management of companies. However, stakeholder theory has been increasingly applied to the area of business ethics as well as business strategy and public policy. This includes not only shareholders but also employees, customers, suppliers, creditors, the government, and society as a whole. It has even been asserted that the term may become even more comprehensive in the future to include some forms of non-human life.

For about three decades now, a substantial body of literature has emerged on the stakeholder concept, including many books and over 100 articles proponebts of the theory claims that various researchers using different aspects of the theory fordifferent purposes caused this development to become confusing. Various definitions can be found in the literature for ‘stakeholder’, ‘stakeholder model’, ‘stakeholder management’, and‘stakeholder theory’.

DATA AND METHODOLOGY

The design used for this study is correlational research design. The design is selected becauseit enables an assessment of the extent of relationship between two or more variables. Lookingat the nature of the data, which cut across many firms at a different time, panel data is employed. Annual reports and accounts of the respected firms have been used by way of a content analysis of the affected items in the Annual Reports. The population of the study comprises of all listed cement companies quoted in the Nigerian Stock Exchange as at 31st December, 2021. And the study has adopted census survey. The study covers a period of ten

(10) years (2012-2021). The data were analyzed using generalized least square (GLS)regression.

Variable Measurement and Model Specification

Dependent Variable

The dependent variable for the study is the corporate social responsibility disclosure which has been proxied by an adopted CSR disclosure index. Because of the strength and popularityof Global Reporting Initiatives (GRI) Guidelines, the researcher decided to use a rating systemaccording to the criteria of the Guidelines. The CSR disclosure index used in this research is based on the rating system of the Guidelines. However, the researcher has made some changes so that the index become suitable to Nigerianbusiness environment, as Several items were eliminated because they are not appropriate for Nigerian companies.

However, the scaling that has been adopted in the study is unweighted scale. An unweighted scale is where ‘1’, ‘0’ and ‘N/A’ will be used. ‘1’ signifies compliance with the requirement,‘0’ signifies noncompliance and ‘N/A’ signifies not required to comply. This is suitable and trustworthy for measuring corporate disclosure and consistent with previous studies (Lopes & Rodridgues; 2007; Bamber, 2011 and Aljifiri, 2014).

https://doi.org/10.61143/umyu-jafr.5(1)2023.010
ISSN: 2795-3831
E-ISSN: 2795-3823

Independent variables

For the purpose of the study, the independent variables used are the determinants of CSR disclosure, and the research will only cover firm specific characteristics that have been proxiedby profitability (profit after tax/ total equity), Firm size (natural logarithms of total assets) and company age (age of the company since corporation). The model for the study that has been found in most of the literature and adapted here is represented by the following regression equation:

$CSRD_{it} = \beta_0 + \beta_1 PROF_{it} + \beta 2FSIZEit + \beta_3 FAGE_{it} + \varepsilon_{it}$……………

Where:

$CSRD_{it}$ = Corporate Social Responsibility Disclosure Index of the firm i at year t, using unweighted scaling system

β_0 = The Intercept.

$PROF_{it}$ = profit after tax/ total equity of firm i at year t. $FSIZE_{it}$ = natural

logarithms of total assets of firm i at year t.

FAGE = age of the company since incorporation

β_1 and β_2 = are the coefficient of the explanatory variables respectivelyε_{it} = the

error term

RESULTS AND DISCUSSION

Under this section, the results of the study are analyzed and discussed, thereafter conclusionswill then be drawn. But the section will be started with descriptive statistics, normality test, then correlation matrix and multicollinearity. Regression results together with both fixed andrandom effect test will also be analyzed.

Descriptive Statistics

The descriptive statistics highlight the basic attributes of all the regression variables used in the study. The dependent variable and the independent variable as depicted in the table below:

Table 5.1: Summary of Descriptive Statistics (2012-2021 Data)

Variables	Mean	Std. Dev	Minimum	Maximum	skewness	kurtosis	Observations
CSRD	0.8542	0.0655	0.7477	0.9334	-0.3483	1.8965	30
PROF	0.1023	0.0710	0.0218	0.2836	1.2819	4.1928	30
FSIZE	17.9031	1.0190	16.5259	19.7590	0.3660	2.2010	30
FAGE	45.500(	15.4334	21.0000	61.0000	-0.6491	1.6040	30

Source: STATA output 2023

From the table 5.1 above, the mean value of CSRD is 0.8542 which indicated the average level of corporate social responsibility disclosure among Nigerian listed cement companies is85% if

converted into percentage, with a minimum of 0.7477 and a maximum of 0.9334. In addition, PROF has shown a mean average of 0.1023 with a minimum of 0.0218 and maximum of 0.2836, which signifies that the average profit of the firms worth 10.23%. The table also indicate the mean average of FSIZE is 17.9031 and a standard deviation of 1.0190,with a range of 16.5259 and 19.7590 as the minimum and maximum level of firm size respectively, which implies that there is a moderate dispersion in size among the Nigerian listed cement companies in Nigeria.

Correlation Matrix

Correlation Matrix shows a relationship between the model's explanatory variables among themselves on one hand, and also their relationship with the response variable, the higher the percentage the higher and stronger the relationship and vice versa. Correlation matrix is depicted below:

Table 5.2 Correlation Matrix

	CSRD	PROF	FSIZE	FAGE
CSRD	1.0000			
PROF	-0.0422*(0.8248)	1.0000		
FSIZE	0.8719*(0.0000)	-0.3132*(0.0919)	1.0000	
FAGE	0.4179*(0.0216)	-0.4759 (0.0079)	0.6645*(0.0001)	1.0000

Source: STATA output 2023

Evidence from table 5.2 has shown that from among the three correlated variables, FSIZE is having the highest correlation with a correlation coefficient of 0.8719, which is significant at1% level of significance (p-value of 0.0000) and it signifies that as the company size increases, disclosure level will also increase. In addition to FAGE, it also shows a positive correlation coefficient of 0.4279 and significant at 5% level of significance (p-value of 0.0216). We can therefore conclude that company age also plays a vital role with respect to corporate social responsibility disclosure of listed cement companies in Nigeria.

The table also indicate that there is no high correlation between the independent variables, asthe correlation coefficient among the independent variables themselves is 0.6645 and equally significant at 1% level of significant (p-value of 0.001), which is also an indicator of the presence of multicollinearity. According to the rule of thumb all the variables that have a correlation coefficient of less than 0.80 are regarded safe and can be included in the same regression model (Gujarati, 2004)

Multicollinearity Test

In multiple regression models, the existence of high correlation among the explanatory variables can lead to statistical and computational difficulties. To examine the extent of multicollinearity, variance inflation factor (VIF) and tolerance value (TV) test were conducted. The result is presented in table 4.4 below:

https://doi.org/10.61143/umyu-jafr.5(1)2023.010
ISSN: 2795-3831
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Table 5.3: Tolerance and Variance Inflation Factor

Variable	VIF	(1/VIF)
PROF	2.09	0.4789
FSIZE	1.79	0.5584
FAGE	1.29	0.7735
Mean VIF 1.72		

Source: STATA output 2023

From the above table, it is apparent that tolerance value of the variables is 0.7735 which is less than 1, and it impliedly means that there is absence of multicollinearity. Furthermore, theVIF value is 1.72 and it also reaffirm the absence of multicollinearity among the explanatoryvariables since it is less than 10.

Heteroskedasticity Test

For the purpose of this study, heteroskedasticity test was conducted to examine the presence of heteroskedasticity, and the study uses Breusch pagan/Cook-Weisberg test. The result has shown a chi2 (1) of 0.00 and prob > chi2 of 0.9531. Which is insignificant and indicate the absence of heteroskedasticity.

Hausman Specification and Lagrangian Multiplier Test

Given the nature of the data (longitudinal panel) used in this study, the OLS regression may not provide the efficient estimates. The study deemed it appropriate and tested for the unobservable firm characteristics which may be fixed in entity (fixed in panel) and time period(fixed effect) and also tested for whether some of these effects may be constant over time butvary among panels, while others may be fixed among panels but vary over time (random effect). As a result, the study conducted both fixed and random effects regressions and furtherperformed Hausman specification test in order to determine the most appropriate result to interpret. The Hausman test showed an insignificant result of (chi2 (3) of 1.36 and prob>chi2of 0.7152). Suggesting that difference in coefficients is not systematic and hence, the randomeffect will be more appropriate than fixed effect model.

Furthermore, the study conducted the Lagrangian Multiplier test in order to decide between the random result and OLS regression result. The result shows a significant result (chi2 valueof 4.93 and Prob > chi2 of 0.0264), in favour of random effect model. The study therefore, adopt random effect regression model. The results of all the tests conducted are attached as appendix.

Analysis of Regression Result

Table 4.5 below has exhibited the results of the regression analysis estimated by the random effect. The table encompasses coefficient, Z- values as well as the probability values of the independent variables.

ISSN: 2795-3831
E-ISSN: 2795-3823

Table 5.5 Regression Results

Variables	Coefficients	Std. Error	Z- Value	Probability
Intercept	-0.3509	0.1107	-3.17	0.002
PROF	0.1856	0.0841	2.21	0.027**
FSIZE	0.0684	0.0068	10.04	0.000***
FAGE	-0.0008	0.0005	-1.70	0.090**

Source: STATA output 2023

*** And ** indicate that the values are significant at 1% and 5% respectively. From the table above, the regression equation can be extracted as follows:CSRD = -0.3509 + 0.1856PROF + 0.0684FSIZE - 0.0008FAGE

Also from the table, the coefficient value of profitability is 0.1856 which signifies that profitability is positively related to CSRD at 5% level of significance. This result is consistentwith the findings of Andrew, (2015). It is however in contrast with the findings of (Atanasovski, 2015) and Alsaeed (2006). On the same vein, the relationship between CSRDand FSIZE also positive and statistically significant at 1% level. This result is also consistentwith the findings of Alsaeed, (2006); Fakete, Matis & Lukacs, (2008); Andrew, (2015).

In order to test for the overall fitness of the model, table 5.5 is depicted below from the resultof the regression model.

Table 5.6 Test for overall fitness of the Random effect model

R^2 Within	R^2 Overall	Wald chi2 (3)
0.7555	0.8374	133.86 (0.0000)

SOURCE: STATA OUTPUT 2023

An evaluation of the table has shown that the model is well fitted as indicated by the Wild chi2 of 133.86, at 1% level of significance. This means that, Profitability, Firm size and firmage, all put together account for 83% of the factors that determine corporate social responsibility disclosure by the listed cement companies in Nigeria. Other factors accounts for the remaining 17%. Also the value of Wald chi2 (3) which is statistically significant at 1% level of significance implies that, there is a 99.9 percent probability that the relationship among the variables is not due to mere chance.

CONCLUSIONS

The study examines the determinants of corporate social responsibility in the listed cement companies in Nigeria. In order to achieve this goal, the study uses secondary source of data from the annual reports and accounts. Used a rating system according to the criteria from theGRI Guidelines. The CSR disclosure index used in this research is based on the rating system of the guideline, while profitability (PROF), Firmsize (FSIZE) and company age (FAGE) were the determining factors. Data were analyzed using multiple regression analysis. The researcher therefore, conclude that:

i. Profitability is having positive and statistically significant relationship with corporate social responsibility disclosure at 5% level of significant, therefore, the higher the profit of the firms

https://doi.org/10.61143/umyu-jafr.5(1)2023.010
ISSN: 2795-3831
E-ISSN: 2795-3823

under review the more disclosures on corporate social responsibility.

ii. Firm size is having positive and statistically significant relationship with corporate social responsibility disclosure at 1% level of significant, therefore, the bigger the size of the firms under review the more disclosures on corporate social responsibility.Company age is having negative but statistically significant relationship with corporate socialresponsibility disclosure at 10% level of significant, therefore, the higher the profit of the firms under review the more disclosures on corporate social responsibility.

RECOMMENDATIONS

Based on the findings, the study recommends that:

i. Listed cement companies in Nigeria should embark more on staff development through staffn skills acquisition and competency training and employ more resources and objective recruitment process towards the attainment of higher profile employee, as this will pave way to profit maximization and consequently the firms' disclosure level to corporate socialresponsibility will equally increase.

ii. Firms shall also invest more in research and development as this will options for expansion intheir size by using either internal growth (using its retained earnings) or through the use of external source (using either Debt or Equity), to enhance more disclosure.

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