

EFFECTS OF CORPORATE GOVERNANCE ON CORPORATE SOCIAL AND ENVIRONMENTAL DISCLOSURE AMONG LISTED FIRMS IN NIGERIA

Solabomi Omobola Ajibolade^a Uwalomwa Uwuigbe^b

^aDepartment of Accounting
Faculty of Business Administration,
University of Lagos, Lagos, Nigeria
soajibolade@yahoo.com
+234-8028315599

^bDepartment of Accounting,
School of Business,
College of Development Studies
Covenant University, Ogun State, Nigeria.
uwalomwa.uwuigbe@covenantuniversity.edu.ng
+234-8052363513

Corresponding author : soajibolade@yahoo.com

ABSTRACT

This study examined the effects of corporate governance (CG) mechanisms on corporate social and environmental disclosure (CSED) among firms listed on the Nigerian Stock Exchange. Forty firms were selected for the study using judgmental sampling technique. A content analysis of information in the corporate annual reports and websites of the selected firms for the period 2006-2010 provided data for the study. CSED was measured using 50 items of information and CG mechanisms examined were CEO duality, Board size, proportion of non-executive directors and audit size. Data obtained were analyzed using correlation and regression analysis. Findings revealed a significant negative relationship between CEO duality and CSED; and significant positive relationships between proportion of non-executive directors, board size, audit size and CSED. The study concluded that an effective board with higher number of non executive directors (independent directors) and larger size and higher quality audits will be more supportive of firms disclosing a wider range of information to stakeholders including social and environmental information.

Keywords: CEO duality, Proportion of non-executive directors, Board size, Audit size, Social and Environmental Disclosure, Nigerian Stock Exchange

1. Introduction

Corporate social and environmental disclosure as a concept has attracted considerable attention among corporate organizations, policy makers and researchers as a phenomenon spurred by the globalisation trends. A large number of firms around the world are engaged in efforts to describe and integrate corporate social and environmental reporting into various aspects of their businesses. In the United States, more than half of the Fortune 1,000 companies regularly issue corporate social and environmental reports (Pramanik, Shil and Das, 2008). McWilliams and Siegel (2001) described social and environmental reporting as the process of communicating the social and environmental effects of organizations' economic actions to particular interest groups within the society and to the society at large. It involves extending the accountability of organisations (particularly) companies; beyond the traditional role of providing a financial account to the owners of capital. Corporate social and environmental disclosure is generally seen, as an extension of firms' efforts to foster effective corporate governance, ensuring the sustainability of firms through sound business practices that promote accountability and transparency. Thus, it is a conceptual framework that recognizes that a viable relationship exists between an organisation's economic performance and its environmental and social activities.

Environmental problems have become major headlines due to the negative effects they bring to the stability of the ecosystem. Thus, the increased awareness of social responsibility or, specifically, environmental concern is now a challenge facing the corporate world. Although the subject of corporate social and environmental disclosure was proposed in the early 20th century, great importance was not attached to it until an outbreak of a series of events. Some of these outbreaks include the Union Carbide chemical leak in Bhopal, India in 1984, the Exxon Valdez oil spill disaster in Alaska in 1989, the tainted milk incident involving the Japanese Snow Brand Dairy Company in 2000, the Chinese Sanlu melamine milk poisoning incident in 2008, the ExxonMobil oil spill Nigeria in 2010, the Gulf of Mexico oil spill in 2010 and the recent Mayflower and Mississippi oil spillage in 2013. This however, highlights the issue of insufficient labor rights protection in developing countries.

Similarly, corporate scandals in high profile companies such as WorldCom, Enron and Tyco, have raised the question of the effectiveness of monitoring mechanisms in organizations (Ionel-Alin, 2012). It is therefore argued that the focus should now be more on improving the internal mechanism, particularly to increase shareholder's insight and influence on corporate behaviour in organizations (Kolk, 2006). These series of scandals involving major enterprises suggest that more stakeholders will suffer if corporate social and environmental reporting is not sufficiently recognized.

Prior studies in recent years have provided insights into the number of companies disclosing social and environment-related information. However, much of the literature to date has been focused on the experience of companies in the industrialized countries, mostly of Europe and United States (Nassr and Fathi 2010). In addition, prior studies have suggested that although corporate governance and corporate social and environmental reporting have separately established themselves as well-researched areas; relatively less attention has been paid to setting up a link between the two concepts (Gibbins, Richardson & Waterhouse, 1990; Haniffa and Cooke, 2005). Hence, this study attempts to address this gap in literature by examining the effects of specific corporate governance variables on the level of corporate social and environmental disclosure among firms listed on the Nigerian Stock Exchange.

The remaining part of this paper is organized as follows: following this introductory section is the literature review and hypotheses development. Subsequent to this are four sections that detail the research methodology, the results, the discussion of findings and the conclusion emanating from the study.

2. Literature Review and Hypotheses development

2.1. *Corporate Social and Environmental Reporting*

Corporate social and environmental reporting may be described as the systematic disclosure of social and environmental effects of organisations' economic action to particular interest groups within society and the society at large (Gray, Owen & Manders, 1987). Businesses can disclose their social and environmental impact through voluntary and mandatory disclosures in their annual reports. Corporate social and environmental disclosure appears to be one of the most important new worldwide governance practices, with many governance principles now recognizing the importance of addressing issues regarding the well-being of the society. It is basically pictured as reflecting the evolution of companies' governance systems from a shareholder perspective to reflect broader stakeholders concerns (Igalens and Point, 2009).

For decades, the economic and political dimensions of environmental governance and change have been at the centre of national and international public policy and academic debates, however, the social impacts of environmental change and the inadequacy of policies in addressing these issues have remained at the margins of academic research. Although their relevance has been emphasized and reaffirmed in the Brundtland Report 1987, the Millennium Development Goals, 2001 and the Doha 2012 UN Climate Change Conference, they remain fringe issues in the global discourse on sustainable development. Nevertheless, the increasingly evident phenomenon of climate change attributed to cumulative human activities such as green house gas emissions, deforestation and over exploitation of non-renewable resources have all generated enormous pressure on business and corporations to reconsider their business strategies and activities so as to deliberately minimize the impact on the environment in which they operate. It follows therefore that for any business corporation to operate successfully, it must necessarily operate or implement business models that assure least significant environmental footprint.

Notwithstanding the growing academic debates, very few studies are available on the corporate social and environmental reporting practices of developing countries, since corporate social and environmental reporting is done on a voluntary basis. Most of the available studies were conducted in the context of industrialized economies focusing their attention on identifying various factors that influence companies to disclose environmental information. Among the factors identified in prior literature were company size, corporate image enhancement, liquidity and firm performance (Deegan, Rankin and Voughts, 2000). It is thus evident that one important gap in both corporate governance and corporate social and environmental reporting literature is the paucity of such research in the context of emerging economies like Nigeria. Hence, the focus of this study on determining the effects of corporate governance mechanism on the level of corporate social and environmental disclosures among listed firms in Nigeria.

2.2. *Corporate Governance mechanism and Corporate Social and Environmental Reporting*

The Cadbury Committee (1992) defined corporate governance as the system by which companies are directed and controlled. Corporate social and environmental reporting (an important component of corporate social responsibility) has increasingly focused on corporate governance as a vehicle for incorporating social and environmental responsibilities into the business decision-making process, benefiting not only financial

investors, but also employees and communities (Kolk, 2006). Jamali, Safieddine and Rabbath (2008) argued that the two concepts of corporate governance and corporate social responsibility should not be considered and sustained independently. More so, corporate governance is presently moving from its conventional focus on agency conflicts to addressing issues of ethics, accountability, transparency and disclosure (Igalens and Point, 2009). Hence, Dutta and Bose (2008) opined that disclosures on corporate and environmental issues has the potential to increase shareholder's wealth and can be regarded as one of the elements of good corporate governance. As Igalens and Point (2009) noted, the effectiveness of regulation on environmental risk, which emphasizes awareness and empowerment of shareholders, essentially depends on the quality of the corporate and environmental disclosure. Very little literature however exists which covers the disclosure of corporate social and environmental governance especially in developing countries.

2.3 Theoretical framework

The agency theory literature provides a framework to study the relationship between corporate governance variables and corporate social and environmental disclosures, since both can be considered as control mechanisms. The agency theory argues that the separation of ownership from control of business gives rise to the tendency of managers to seek to maximize their own utility and pursue interest in conflict to that of owners (Jensen & Meckling, 1976). In order to reduce these conflicts and their adverse effects on firm value, a variety of corporate governance mechanisms have been devised to keep corporate managers in check. From this perspective, the corporate governance mechanisms should encourage transparent disclosure of information about the firm to reduce information asymmetry and thereby reduce conflicts between management and shareholders. Initially, the agency theory was applied to the relationship between managers and shareholders but subsequent research widened its scope to include other stakeholders (Sarda, Mikaili & Garba, 2005). The disclosure of social and environmental impact of business activities addresses issues relating to the welfare of all stakeholders and may therefore be viewed from this perspective.

Several corporate governance mechanisms have been suggested in literature. These according to Gillan et al. (2007) are categorized into internal mechanisms which include management and its board of directors, charter provisions, inside ownership, block holders, and external mechanisms including market for corporate control, legal and regulatory rules and investor monitoring. Majority of corporate governance literature has alluded to the importance of the role of the board of directors in monitoring management. The effectiveness of the board has therefore been at the centre of corporate governance debate (Jensen 1993; Babatunde and Olaniran 2009; Fama and Jensen, 1883). Board independence is argued to be a major contributory factor to the effectiveness of the board. An independent board is expected to be in a position to bring pressure to bear on management to ensure transparent disclosure of material information. Board size and board composition have been suggested as critical influences on board independence. Two elements of board composition argued to be important for its independence are the separation of the roles of chief executive officer (CEO) and chairman of the board (Florackis & Ozkan (n.d.) and higher proportion of non-executive directors on the board (The Cadbury Committee, 1992). However, research results have not been consistent on these. As Babatunde and Olaniran further noted, while these internal mechanisms are necessary for efficiency, they are not sufficient for good governance; in addition to these, external governance mechanisms are also important for disciplined corporations in market economies. High quality audit has been argued to be one of the most effective external governance mechanisms for reducing agency conflicts arising from information asymmetry. The Cadbury Report (1992) affirmed that the annual audit is one of the cornerstones of corporate governance. High quality audit is expected to ensure transparent disclosure of all material facts about the activities of the firm. These arguments informed the focus of this study on finding out the nature of

the effects of three internal corporate governance mechanisms; board size, CEO duality and proportion of non-executive directors on the board and one external governance mechanism; audit size (as proxy for audit quality) on disclosure of social and environmental information.

2.3.1 Board size

In relation to board effectiveness in monitoring management, it has been argued that large boards are more powerful than small boards and can help strengthen the link between corporations and their environments (Zahra 1991). It is expected that large board will be able to maintain independence from the board and thereby encourage management to disclose more information. Dalton, Daily, Johnson and Ellstrand (1999) opined that larger boards potentially bring more experience and knowledge and offer better advice as they are more likely to include experts on specific issues such as environmental performance. Buniamin, Alrazi, Johari and Rahman (2008) based on the content analysis for 243 Malaysian companies stock listed provided evidence that board size has a significant influence on the level of environmental reporting. Akhtaruddin, Hossain, M.A., Hossain, M. and Yao (2009) also suggested a positive association between the size of the board and the reporting of voluntary information.

On the other hand, studies have argued that large boards are less effective than small boards. The basis advanced for such argument is the difficulty that large groups of directors may pose in terms of coordination and decision making. Less effective monitoring is expected when the monitoring group is not coordinated. Studies have provided empirical evidence based on these arguments. Byard, Li and Weintrop (2006) supporting this view reported a negative relationship between board size and disclosure. The study found that financial disclosure decreased with board size while Cheng and Courtenay (2006) indicated that board size has no relationship with voluntary disclosure.

2.3.2 CEO Duality

The Cadbury Committee (1992) recommended as an element of good corporate governance, the separation of the role of Chief executive officer (CEO) from that of the Chairman of the board. CEO duality refers to the absence of this separation of the roles of the CEO and the Chairman. Fama and Jensen, (1983) argued that since CEO duality signals the absence of separation of decision management and decision control, the board will be unable to effectively monitor and evaluate the CEO. CEO duality according to Kula (2005) compromises the desired system of checks and balances and represents a conflict of interests, thus reducing the level of accountability and transparency. Studies including Gul and Leung (2004); Ho and Wong (2001) have reported a positive relationship between voluntary disclosure and the separation of the role of CEO and board chairman implying that firms with CEO duality are more likely to be associated with poorer disclosure. However empirical research on the relationship between CEO duality and voluntary disclosure by Cheng and Courtenay (2006) reported no significant relationship while Sanchez, Dominguez and Álvarez (2011) in analysing the disclosure practices of Spanish companies in relation to a voluntary typology of strategic information to determine the factors that explain these practices found that corporate disclosure was high where the chairperson of the board is the same person as the CEO implying a positive relationship between CEO duality and social and environmental disclosure.

2.3.3 Proportion of non-executive directors

Agency theory suggests that boards with a higher proportion of independent directors work in the best interests of the minority shareholders in order to maintain their own good reputation in society (Fama and Jensen 1983). The Cadbury Committee (1992) affirmed the need for a higher proportion of non-executive

directors to executive directors on the board. Consistent with this view, Florackis and Ozkan (n.d.) argued that boards with a significant proportion of non-executive directors can limit the exercise of managerial discretion by exploiting their monitoring ability and protecting their reputations as effective and independent decision makers. In support of this line of argument, Akhtaruddin et al. (2009) indicated a positive association between the ratio of independent, non-executive managers within the board and the voluntarily reported information. Cheng and Courtenay (2006) found that the proportion of independent directors is directly associated with the extent of voluntary disclosure and that the existence of a corporate governance mechanism and environmental rules would increase the power of the relationship between proportion of non-executive directors on the board and the extent of voluntary disclosure. It can thus be argued that inclusion of higher proportion of non-executive on the board would result in more individuals having the incentive to protect their reputation by promoting higher transparency through disclosure of material information including social and environmental impact of business activities.

2.3.4 Audit Size

The agency theory suggests that auditing is one of those important mechanisms put in place to align the interest of agents with their principals. The audit provides an external and objective check on the way in which the financial statements have been prepared and presented (The Cadbury Committee, 1992). It lends credibility to disclosures in the financial reports, thus serving a fundamental purpose in promoting confidence and trust in information contained in the reports. It therefore follows that the effectiveness of an audit process is critical to the disclosure of relevant information in financial reports. Monroe & Tan (1997) attested to this when they opined that the quality of an audit can affect the reliability of audited financial information. Palmrose (1988) also argued that higher quality audits are associated with absence of material omissions or misstatements in the financial statements. By implication, appropriate social and environmental disclosure should be promoted by higher quality audits. Prior literature has measured quality of audit using various proxies including audit fees (O' Sullivan, 2000; Boo & Sharma, 2008); non-audit fees (Li and Lin 2005) and audit firm size (Chau & Gray, 2002, Lin & Liu, 2009). However, the most commonly used proxy is audit firm size (Kilgore, 2007). Larger audit firms are believed to be associated with higher audit quality because of the greater reputation they have at stake, larger clients' base and larger resources to employ highly skilled auditors. Studies have found evidence suggesting that larger audit firms are associated with higher voluntary disclosure. Ho and Wong (2001) analyzed the relationship between corporate governance structures and the extent of voluntary disclosure in Hong Kong Stock Exchange. They observed that the existence of an auditor is significantly and positively related to the extent of voluntary disclosure. Chau and Gray (2002) also found that firms audited by the larger audit firms disclosed more information voluntarily.

2.4. Hypotheses

Based on the agency theory foundation and the foregoing arguments as highlighted in the preceding discussions, the following null hypotheses were formulated and tested:

H₀₁: there is no significant relationship between CEO duality and the level of corporate social and environmental disclosure among listed firms in Nigerian.

H₀₂: there is no significant relationship between audit size and the level of corporate social and environmental disclosure among listed firms in Nigerian.

H₀₃: there is no significant relationship between the proportion of independent directors in the board and the level of corporate social and environmental disclosure among listed firms in Nigerian.

H₀₄: there is no significant relationship between board size and the level of corporate social and environmental disclosure among listed firms in Nigerian.

3. Research Methodology

The population of interest in this study comprised of all 244 firms listed on the floor of the Nigerian Stock Exchange as at 31 December 2010. However, the study made use of a selected sample of 40 listed firms (constituting a percentage of about 16.4% of the total population under review) whose activities directly or indirectly have significant impact on the environment due to their mode of operation. The sample size chosen is in line with the suggestion of Kerjice and Morgan (1970) that a minimum of 5% of a defined population is considered as an adequate sample size required for generalization. The judgemental sampling technique which is a non probabilistic sampling technique was used in selecting the sample firms based on availability of the financial reports covering all the years under review and the researcher's judgement on the impact of the activities of the firms on their environment. The study made use of secondary data contained in the annual reports and corporate websites of the selected firms. This is due to the fact that corporate websites and annual reports are the main corporate documentary sources widely used as the communication media for conveying corporate activities to stakeholders. The annual reports for period 2006-2010 were used due to the increased level of awareness and pressure from stakeholders within these periods. Content analysis was used in eliciting the data contained in the corporate annual reports and websites. This method is one of the most systematic, objective and quantitative methods of data analysis technique employed in other prior research studies involving corporate environmental disclosures practices (Krippendorff, 2004). In order to effectively manage the number of observation in this study, the data obtained for each of the identified variables under review were averaged for the period 2006-2010 for each of the sampled firms.

Adapting some of the disclosure indexes used in related literatures (e.g. Ingram and Frazier, 1980; Nassr and Fathi 2010), fifty (50) content category items within five (5) testable dimensions of environmental disclosure were developed for coding based on the ISO 14031 requirements. These disclosure indexes as summarised (See Appendixes 1 & 2) include theme, evidence, location in annual report/corporate website, news type and time. A dichotomous procedure known as the Kinder Lydenberg Domini (KLD) social environmental performance rating system was used to measure the reporting score (RS) on the 50 content category items. A score of one (1) was awarded if an item was reported; otherwise a score of zero (0) is awarded. Thus, a firm could score a maximum of fifty (50) points and a minimum of zero (0). The formula for calculating the reporting score by using these 50 attributes is expressed in a functional form as follows:

$$RS = \frac{\sum_{i=1}^{50} r_i}{50}$$

Where:

RS = Reporting Score

r_i = A score of (1) if the item is reported and (0) if the item is not reported

i = 1, 2, 3, 4, 5, 6, 7, 8, 9 ... 50.

In order to measure the relationships between the independent variables (CEO duality, audit size, proportion of non-executive directors, board size) and the dependent variable (corporate social and environmental

disclosure), correlation analysis and the ordinary least square regression analysis were utilized. The regression model adopted as shown below in functional and explicit forms:

Model Specification

$$CSED_t = f(CEODUAL_t, AUDSIZE_t, PNED_t, BSIZE_t, FSIZE_t, U_t) \dots \dots \dots (1)$$

This can be written in explicit form as:

$$CSED_t = \beta_0 + \beta_1 CEODUAL_t + \beta_2 AUDSIZE_t + \beta_3 PNED_t + \beta_4 BSIZE_t + \beta_5 FSIZE_t + U_t \dots \dots \dots (2)$$

Where:

$CSED_t$ = Corporate Social and Environmental Disclosure Index.

$CEODUAL_t$ = CEO Duality data was coded as a binary variable. If the CEO and Board Chairman positions were held by the same person, then it is accepted that CEO Duality existed and this is coded with a score of (1) and otherwise, it was coded as (0).

$AUDSIZE_t$ = Audit size (in terms of the big four audit firms in Nigeria). Audit size was set to be equal to one (1) if the information obtained from companies audited reports show that it is audited by one of the "big 4" audit firms (i.e. KPMG; Ernst and Young; Akintola Williams Deloitte; PWC), otherwise zero (0).

$PNED_t$ = Proportion of non executive directors divided by total number of directors on the board (%)

$BSIZE_t$ = Total number of members on the board directors.

$FSIZE_t$ = Firm Size is measured by the Log of total asset (Control Variable).

U = Stochastic or disturbance term.

t = Time dimension of the Variables

β_0 = Constant or Intercept.

$\beta_1 \dots \beta_5$ = Coefficients to be estimated or the Coefficients of slope parameters.

The expected signs of the coefficients (i.e. a priori expectations) are such that $\beta_1 < 0$; while $\beta_2, \beta_3, \beta_4 > 0$.

4. Results

Results from the descriptive statistics as shown in table 1, indicate a mean corporate social and environmental disclosure (CSED) level of about 24.29 for the selected firms under consideration representing an average percentage disclosure of social and environmental information of about 48.58% for the period. Further, results of the mean measurement for board size (BSIZE) CEO duality (CEODUAL), audit size (AUDSIZE), proportion of non executive directors (PNED) indicate an average board size of 10 persons which is about two third of the maximum 15 member board as specified in the Securities and Exchange Commissions' Code of Corporate Governance of 2003. CEO duality mean score indicates that 23% of the selected firms have the same individuals functioning as the Chairman and the CEO while mean score for PNED indicates that there is a lesser proportion of non executive directors (41.4%) than executive directors on the boards of the firms.

Results of the correlation analysis as depicted in table 2 indicate a strong negative correlation between CEO duality and corporate social and environmental disclosure (CSED) $r = -0.7082$. As further indicated, audit size (AUDSIZE), proportion of non executive directors (PNED) and board size (BSIZE) have significant positive association with the level of corporate social and environmental disclosure (CSED). Interestingly, firm size which is the control variable also has a significant positive association with the level of corporate social environmental disclosure.

Tables 3 and 4 display the result of the regressions (Anova and model summary) which tested all the stated hypotheses (i.e. $H_1 - H_4$). The results as summarized in the tables suggest that the 78% variation in the dependent variable can be explained by the independent variables suggesting clearly that simultaneously the explanatory variables are significantly associated with the dependent variable. The use of multivariate hypothesis test is based on the assumption of no significant multicollinearity between the explanatory variables. Non-existence of multicollinearity between the independent variables was confirmed by computing the variance inflation factors (VIFs) for each of the explanatory variables and the mean VIF, as depicted in table (5) of 1.71, which is lower than ten (10), a number used based on a rule of thumb as an indicator of multicollinearity problems (Field, 2000). Thus, the VIF coefficient and the residual statistics confirm the lack of co linearity and therefore sustained the model.

5. Discussion of findings

Empirical evidence in this study is consistent with our initially stated a priori expectations (i.e. $b_1 < 0$ and $b_2, b_3, b_4 > 0$). A significant negative relationship was found between CEO duality and level of corporate social and environmental disclosure, suggesting a rejection of the null hypothesis 1 which proposed no significant relationship between the two variables. This outcome is consistent with the agency theory perspective which holds that CEO duality can decrease the effectiveness of monitoring activities and therefore, may weaken the corporate social and environmental performance of firms (Desender, 2009). Concentration of power according to Finkelstein and D'Aveni (1994) reduces board monitoring effectiveness which in turn can result in lack of transparency and high information asymmetry. Nevertheless, this outcome contradicts the findings provided in Donaldson and Davis (1991) and Lin (2005) where it was asserted that CEO duality creates a necessary and important unity of command at the top of the organization and helps to avoid confusion among managers, employees and other stakeholders as to who is the boss and facilitates timely and more effective decision-making.

Also consistent with a priori expectation, findings indicated positive relationship between audit size and the level of corporate social and environmental disclosure; a significant positive relationship was found between audit size and the level of corporate social and environmental disclosure at $p = 0.012$. Thus, the second null hypothesis of no relationship between the variables was also rejected. This outcome supports the findings provided in Hossain, Tan and Adams (1994); Ng and Koh (1993) where a positive relationship between the size of audit firm and the extent of voluntary disclosure was reported. It is also consistent with the findings provided in Ahmed and Karim (2005) that companies audited by the big four audit firms comply more with audit requirements than others. They argued that any financial statement certified by any big four audit is likely to be more credible than that of the non big four firms.

Findings relating to the third hypothesis indicated a significant positive relationship between the proportion of non executive directors on the board and the level of corporate social and environmental disclosure for the sampled firms at $p < 0.05$. This result implies that the higher the proportion of non-executive directors

(independent directors) on the board, the more firms are likely to disclose corporate environmental information, since non-executive directors are seen as the check and balance mechanism, in ensuring that companies act in the best interests of owners and other stakeholders. More so, their presence tends to strengthen the board by monitoring the activities of the management, and ensuring that the interests of the investors are protected. Interestingly, despite the environmental and contextual differences, this result is in tandem with Haniffa and Cooke (2005); Zahra and Stanton (1988) where it was suggested that the independent directors are seen as more able to respect with honor the obligations of the company and are generally more interested in developing and maintaining the social responsibility of the company since doing so may enhance their prestige and honor in society.

Finally, consistent with our a priori expectation, board size was also observed to have a have a significant positive relationship with the level of corporate social and environmental disclosure for the sampled firms in Nigeria at $p = 0.000$. indicating that the larger the number of board members, the higher the tendency for companies to report on the environment in the annual report, since pluralism among the board members may stimulate environmental attention. Besides, large boards with diverse knowledge are more effective and likely to have a higher degree of independence and expertise than smaller boards in ensuring a balance between organizational decisions and actions and societal values and corporate legitimacy. This outcome is in line with the propositions of Dalton et al. (1999) that larger boards potentially bring more experience and knowledge and offer better advice as they are more likely to include experts on specific issues such as environmental performance.

6 Conclusion

This study examined the effects of corporate governance mechanisms on the level of corporate social and environmental disclosures among listed firms in Nigeria and provided evidence to support the arguments that significant relationships exist between corporate governance variables and corporate social and environmental disclosure. While the study observed a significant negative relationship between CEO duality and the level of corporate social and environmental disclosure, significant positive relationships were observed between audit size, proportion of independent directors and board size and the level of corporate social and environmental disclosure among the listed firms sampled. Interestingly, the control variable (firm size) also had a significant positive effect on the level of corporate social and environmental disclosure. The study thus concludes that in line with the agency theory perspective, CEO duality tends to reduce the effectiveness of monitoring activities and therefore, may weaken the corporate social and environmental performance of firms, while audit size is an important determinant in the corporate social and environmental performance of firms. These results appear to corroborate the suggestion that larger audit firms in line with international standards tend to provide higher quality audit service due to their high degree of expertise and specialization. In addition, the paper noted that the proportion of non-executive directors is yet generally lower in relation to executive directors in Nigerian firms. The results which showed that higher proportion of non-executive directors on the board is associated with greater disclosure is an indication of the need to improve governance practices of firms in this area. It is suggested that since non executive directors (independent directors) are less aligned with management, they may be more inclined to support firms to disclose a wider range of information to stakeholders, thus potentially conveying information to a wide set of stakeholders.

Finally, the paper acknowledges that corporate and environmental disclosure among firm in Nigeria being done on a voluntary basis, is still at a low level. The study recommends the need for stronger policy statements and actions to encourage firms operating in Nigeria to engage more in sustainability disclosure in order to ensure congruence between organizational decisions and actions and societal values and corporate legitimacy.

Variables	Observations	Mean	Std. Dev	Min.	Max
CSED	40	24.2925	11.60354	7.5	44.8
CEODUAL	40	.225	.4229021	0	1
AUDSIZE	40	.600	.4961389	0	1
PNED	40	.414	.1066458	.25	.66
BSIZE	40	10	1.867399	7	14
FSIZE	40	7.572	3.977855	2.05	15.04

Table 1: Descriptive Statistics of Variables under study

Variables	CSED	CEODUAL	AUDSIZE	PNED	BSIZE	FSIZE
CSED	1.0000					
CEODUAL	-0.7082 (0.0000)	1.0000				
AUDSIZE	0.6337 (0.0000)	-0.4155 (0.0077)	1.0000			
PNED	0.5894 (0.0001)	-0.3843 (0.0001)	0.3412 (0.0143)	1.0000		
BSIZE	0.6263 (0.0000)	-0.4847 (0.0014)	0.2768 (0.0838)	0.2948 (0.0648)	1.0000	
FSIZE	0.6587 (0.0000)	-0.6278 (0.0000)	0.5413 (0.0003)	0.3951 (0.0116)	0.1855 (0.2517)	1.0000

Table 2: Pearson Correlation Coefficients for variables

Source	SS	df	MS
Model	3.03318145	4	.758295362
Residual	1.15087438	35	0.032882125
Total	4.18405583	39	

Table 3: Anova

<i>CSED</i>	<i>Coefficient</i>	<i>Std. Err.</i>	<i>t</i>	<i>P</i>	<i>[95% Cof.</i>	<i>Interval]</i>
<i>CEODUAL</i>	-5.172705	3.02095	-1.71	0.096	-11.31202	.9666071
<i>AUDSIZE</i>	5.668318	2.142001	2.65	0.012	1.315248	10.02139
<i>PNED</i>	25.07397	9.224085	2.72	0.010	6.328375	43.81957
<i>BSIZE</i>	2.191034	.5558676	3.94	0.000	1.061375	3.320693
<i>FSIZE</i>	.7372313	.3186041	2.31	0.027	.0897499	1.384713
<i>CONST</i>	-15.81791	7.133264	-2.22	0.033	-30.31445	-1.321378
<i>No. of Obs.</i>	40					
<i>F (4, 35)</i>	23.06					
<i>Prob F</i>	0.0000					
<i>R-squared</i>	0.8103					
<i>Adj R-squared</i>	0.7824					
<i>Root MSE</i>	5.4133					

Table 4: Regression result

<i>Variables</i>	<i>VIF</i>	<i>1/VIF</i>
<i>CEODUAL</i>	2.17	0.460350
<i>FSIZE</i>	2.14	0.467795
<i>AUDSIZE</i>	1.50	0.665288
<i>BSIZE</i>	1.43	0.697330
<i>PNED</i>	1.29	0.776464
<i>Mean VIF</i>	1.71	

Table 5: Variance Inflation Factor

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APPENDICES

APPENDIX 1: LIST OF SELECTED LISTED FIRMS

S/ N	Selected Firms	CSED	CEO DUALITY	AUDSIZE	PNED	BSIZE	FSIZE
1	Ashaka Cement Plc	30.5	0	1	0.5	8	10.23
2	Nigerian Ropes Plc	21.5	0	1	0.44	9	13.34
3	Dangote Cement Plc	29.5	0	1	0.55	7	14.38
4	Lafarge WAPCO Nigeria Plc	29.9	0	1	0.56	10	11.5
5	CCNN PLC	35.5	0	1	0.56	10	7.52
6	Nigerian Wire Industries Plc	9.5	1	1	0.45	8	4.72
7	Portland Cement & Products Nig. Plc	31.1	0	1	0.34	10	12.89
8	Guinness Nigeria Plc	39.5	0	1	0.45	11	13.00
9	Nigerian Bottling Company Plc	42.5	0	1	0.56	10	15.04
10	Nigerian Brewery	41.5	0	1	0.61	10	10.11
11	CAP Nigeria Plc	8.5	1	1	0.27	9	3.27
12	IPWA Plc	12.5	0	1	0.34	9	3.35
13	Paints & Coatings Manufacturers Nig. Plc	23.3	0	1	0.33	9	11.4
14	Premier Paints Plc	15.5	0	0	0.25	8	13.41
15	African paints (Nigeria) plc	11.3	1	0	0.42	8	3.45
16	Berger paints plc	23.3	0	0	0.53	12	7.46
17	African Petroleum Plc	29.5	0	1	0.44	10	11.57
18	Total Nigeria plc	38.5	0	1	0.34	12	12.64
19	Afroil Plc	34.5	0	1	0.45	12	10.71
20	Beco Petroleum Products plc	37.9	0	1	0.55	14	12.6
21	Conoil Plc	42.1	0	1	0.44	14	6.3
22	Eterna Oil and Gas Company Plc	28.1	0	1	0.54	12	6.3
23	Mobil Oil Nigeria Plc	44.8	0	1	0.33	13	6.31
24	Oando Plc	43.1	0	1	0.66	12	6.36
25	Ecobank Nigeria Plc	20.5	0	0	0.45	11	6.37
26	First Bank of Nigeria Plc	21.5	0	0	0.46	13	6.36
27	United Bank for Africa Plc	21.5	0	1	0.34	12	6.59
28	Zenith bank Plc	26.5	0	0	0.37	12	6.71
29	Cadbury Nigeria Plc	23.5	0	1	0.25	11	5.86
30	Flour mills of Nigeria plc	21.5	0	0	0.34	9	7.00
31	Honeywell Flour Mills Plc	13.5	0	0	0.3	9	2.44
32	7-up Bottling Company Plc	26.5	0	1	0.34	8	7.4
33	Nestle Nigeria Plc	17.5	0	0	0.45	9	3.36
34	National salt company (Nigeria) plc	21.5	0	0	0.44	9	7.41
35	Costain (West Africa) plc	7.5	1	0	0.36	8	2.46
36	Julius Berger Nigeria Plc.	10.4	1	0	0.32	9	2.6
37	Beta Glass Company Plc	8	1	0	0.33	9	2.94
38	Vita foam (nig.) Plc	10.4	1	0	0.29	8	2.99
39	Neimeth International Pharma Plc	9.3	1	0	0.33	8	2.05
40	B. O. C. Gases Plc	8.2	1	0	0.28	8	2.48

Source: Computed from Annual Report and Corporate Websites (2006-2010)

APPENDIX 2: CONTENT CATEGORY DATA

TABLE 2: CONTENT CATEGORY DATA

Disclosures in terms of Themes					
S/ N	Environment	Energy	Research & Development	Employee Health and Safety	Community Involvement
1	Environmental pollution	Firms energy policies	Investment in research on renewal tech.	Disclosing accident statistics	Donations of cash, products or employees services
2	Conservation of natural resources	Disclosing energy savings	Environmental education	Reducing or eliminating pollutants/irritants/hazards in the work environment	Summer or part-time employment of students
3	Environmental management/ policies	Reduction in energy consumption	Environmental research	Promoting employee safety and physical or mental health	Sponsoring public health projects
4	Recycling plant of waste products	Received awards or penalties	Waste management/ reduction and recycling tech.	Disclosing benefits from increased health and safety expenditure	Aiding medical research
5	Air emission information	Disclosing increased energy efficiency products	Research on new method of production	Complying with health and safety standards and regulations and Establishment of Educational Institution	Funding scholarship programmes or activities
6	Pollution Control Measures	Utilizing waste materials for energy production	Environmental impact Survey Research	Providing low cost health care for employees	Donations to charity. Art, sports etc.
7	Land remediation and Containment	Conservation of energy in the conduct of business operations.	Environmental Impact Assessment Analysis	Providing information on the company/management relationships with the employees in an effort to improve job satisfaction and employee motivation	Sponsoring educational conferences, seminars or art exhibitions
Disclosures in terms of Evidence					
1	Monetary Quantitative: All statement expressing factual information concerning firms' pollution activities expressed in monetary terms.				
2	Non-monetary Quantitative: All statement expressing factual quantitative information concerning a firm's pollution activities expressed in qualitative terms or non-monetary terms				
3	Quantitative monetary and non-monetary: All statement expressing factual information concerning a firm's pollution activities expressed both in monetary and non-monetary terms.				
4	Declarative: A statement of opinion or unsupported declaration concerning firm's pollution activities. It includes qualitative information expressed in descriptive terms.				
Disclosure in terms of Location					
1	Financial statement				
2	Operation reviews discussions on environmental issues				
3	General environmental information disclosed or discussed in the Chairman's statement				
4	General environmental information disclosed or discussed in the corporate diary				
5	General environmental information disclosed or discussed on the corporate webpage				
Disclosures in terms of News type					
1	Good: statements that reflect credit to the company				
2	Neutral: statements whose credit/discredit for the company is not obvious				
3	Bad: statements that reflect discredit to the company				
Disclosures in terms of Time					
	Time				
1	Present: a statement referencing present events or situations				
2	Future: a statement referencing future events or situations.				
3	Past: a statement referencing past events or situations.				

Source: Adapted from Ingram and Frazier, 1980; Nassr and Fathi, 2010)