CORPORATE GOVERNANCE MECHANISMS IN SOCIAL AND ENVIRONMENTAL DISCLOSURE: THE MODERATING ROLE OF NON-EXECUTIVE DIRECTORS' OWNERSHIP IN NIGERIA

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**DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA
May 2017**

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Thesis Submitted to
Tunku Puteri Intan Safinaz School of Accountancy,
Universiti Utara Malaysia,
in Fulfilment of the Requirement for the Degree of Doctor of
Philosophy

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ABSTRACT

Social and environmental information are key elements of corporate disclosure where it attracts stakeholders concern due to some agitations in Nigeria. This is in addition to low quality and less reporting where corporate governance mechanisms are believed to be the factors responsible for the reporting quality of the disclosure. In addition, there are stakeholder's agitations on social and environmental issues. In order to address these problems therefore, this study examines the relationship between corporate governance mechanisms and corporate social and environmental disclosure quality among listed firms in Nigeria. Due to some inconsistencies found among the relationships, this study introduced non-executive director's ownership as moderator. The data in this study is based on annual reports and content analysis of 100 listed companies for five years (2010-2014) obtained from Nigerian Stock Exchange. The data is analysed using feasible generalized least square (FGLS). The finding shows a significant positive relationship between board size, board independence, directors' qualifications, audit committee independence, and corporate social and environmental disclosure quality (CSEDQL). However, a negative significant relationship is established between board meetings and corporate social and environmental disclosure quality. Meanwhile, non-executive directors' ownership significantly moderates the relationship between board independence, board committees, audit committee independence and corporate social and environmental disclosure quality. The findings contribute theoretically by using stakeholders and agency theory, methodologically by introducing non-executive directors' ownership as moderator, the use of Global Reporting Initiative to calculate the quality of corporate social and environmental disclosure and the use of FGLS as techniques of analysis. Based on the result that shows a low social and environmental reporting, this study provides a way forward for government and policy makers to address the Nigerian companies on social and environmental disclosure quality.

Keyword: social, environmental, disclosure, corporate governance mechanisms, Nigeria

ABSTRAK

Maklumat sosial dan alam sekitar adalah kunci utama kepada pendedahan korporat kerana ia menarik kebimbangan pihak berkepentingan ekoran daripada beberapa pergolakan di Nigeria. Ini adalah tambahan kepada kualiti yang rendah dan kekurangan laporan di mana mekanisme tadbir urus korporat dipercayai menjadi faktor yang bertanggungjawab kepada laporan kualiti pendedahan. Di samping itu juga, terdapat pergolakan oleh pihak berkepentingan tentang isu-isu sosial dan alam sekitar. Dalam usaha untuk menangani masalah-masalah tersebut, kajian ini mengkaji hubungan antara mekanisme tadbir urus korporat dan kualiti pendedahan sosial korporat dan alam sekitar dalam kalangan syarikat yang tersenarai di Nigeria. Oleh kerana terdapat beberapa percanggahan yang ditemui dalam hubungan tersebut, maka kajian ini memperkenalkan pemilikan pengarah bukan eksekutif sebagai penyederhana. Data dalam kajian ini adalah berdasarkan kepada laporan tahunan dan analisis kandungan daripada 100 buah syarikat yang tersenarai selama lima tahun (2010-2014) yang diperolehi daripada Bursa Saham Nigeria. Data dianalisis dengan menggunakan *Feasible Generalized Least Square* (FGLS). Dapatan kajian menunjukkan hubungan positif yang signifikan antara saiz lembaga, kebebasan lembaga, kelayakan pengarah, kebebasan jawatankuasa audit dan kualiti pendedahan maklumat sosial korporat dan alam sekitar. Walau bagaimanapun, hubungan negatif yang signifikan wujud antara mesyuarat-mesyuarat lembaga dan kualiti pendedahan sosial korporat dan alam sekitar. Sementara itu, pemilikan pengarah bukan eksekutif menyederhana secara signifikan hubungan antara kebebasan lembaga, jawatankuasa lembaga, kebebasan jawatankuasa audit dan kualiti pendedahan sosial korporat serta alam sekitar. Dapatan kajian menyumbang daripada aspek teori dengan menggunakan teori agensi dan teori pihak berkepentingan. Secara metodologinya pula, ia memperkenalkan pengarah bukan eksekutif sebagai penyederhana, menggunakan indek Laporan Inisiatif Antarabangsa untuk mengira kualiti pendedahan sosial korporat dan alam sekitar serta menggunakan kaedah FGLS sebagai teknik analisis. Berdasarkan penemuan yang menunjukkan kekurangan pelaporan maklumat sosial dan alam sekitar, kajian ini membuka jalan kepada kerajaan dan pembuat dasar untuk menangani kualiti pendedahan sosial dan alam sekitar syarikat-syarikat di Nigeria.

Kata kunci: sosial, alam sekitar, pendedahan, mekanisme tadbir urus korporat, Nigeria

ACKNOWLEDGEMENT

Alhamdulillah!!! Thank be to Allah for the opportunity and His guidance on the PhD programme. May His blessings be upon His messenger Muhammad (SAW).

I would like to appreciate the Department of Accounting (ABU) and Ahmadu Bello University, Zaria that permit me the study leave to undertake my PhD programme in Universiti Utara Malaysia. I am also grateful to Tunku Puteri Intan Safinaz School of Accountancy (TISSA), College of Business (COB), Othman Yeop Abdullah (OYA) and most importantly Universiti Utara Malaysia (UUM) for the permit and availability of every academic support I needed in the cause of my study. I have to also appreciate Malaysian citizens for their good human relationship.

My sincere gratitude goes to my humble supervisors Dr. Rapiah Mohamed and Dr. Noriah Che Adam for their wonderful supervision of my PhD thesis. I also thank my examiners Prof. Dr, Azlan Amran and Dr. Mohd Atef Yusof for their valuable contribution in making the PhD thesis better.

My parents who pass away may Allah grants them Aljannah Firdaus. I have to thank my uncle and all the Galadima's family for their support and prayer. This is in addition to my family, especially my wife, for their patients and prayers.

Finally, I thank Nigerian community in UUM Malaysia for the opportunity to serve them as President in 2015. The gratefulness also goes to my friends and well-wishers on my study. I have received lots of encouragements and prayers from you, may the Almighty Allah reward you best.

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LIST OF ABBREVIATIONS

ANAN   Association of National Accountants of Nigeria

ANOVA   Analysis of Variance

CEO   Chief Executive Officer

CED   Corporate Environmental Disclosure

CEP   Corporate Environmental Performance

CER   Corporate Environmental Responsibility

CG   Corporate Governance

CGM   Corporate Governance Mechanisms

CIMA   Chartered Institute of Management Accountant

CSD   Corporate Social Disclosure

CSED   Corporate Social and Environmental Disclosure

CSR   Corporate Social Responsibility

GLS   Generalised Least Square

GRI   Global Reporting Initiative

IASB   International Accounting Standard Board

ICAN   Institute of Chartered Accountant of Nigeria

IFRS   International Financial Reporting Standard

KPI   Key Performance Indicator

NSE   Nigerian Stock Exchange

OLS   Ordinary Least Square

OECD   Organization for Economic Co-operation and Development

R&D   Research and Development

SEC   Securities and Exchange Commission

USA   United States of America

VD   Voluntary Disclosure

VED   Voluntary Environmental Disclosure

1.1 Background of the Study

Corporate social disclosure (hereafter called CSD) refers to disclosure of social issues on corporate reporting which include, human resource, consumers' issues and community with stakeholders concern (Global Reporting Initiative (GRI), 2011). Others are training and development of employees, employee's health and safety, non-discriminant opportunity, wage related issues, labelling of a product, communication, complaints by customers, local community involvement, corruption control, concern for public policy and law compliance (GRI, 2011).

While corporate environmental disclosure (hereafter called CED) means disclosure of environmental issues in an organizational, financial reporting or separate reporting concerning the environment (Kovács, 2008; Márquez & Fombrun, 2005). These include used materials and recycling, energy consumption, water consumption, control of emissions, control of wastages and final products related environmental effects (GRI, 2011).

As a country with a population of over 150 million people and it ranks as seventh in the production of crude oil globally, yet Nigeria is among the country that faces both social and environmental challenges in the form of soil degradation; air pollution; water pollution; fast deforestation; desertification; crude oil pollution, health and

safety issues, products recycling etc. (Central Intelligence Agency, United Nation, United State of American Government, 2012). This could be from the activities of the companies operating in Nigeria through oil spills; gas flaring; loss of arable land; release of chemical substances and rapid urbanization (Central Intelligence Agency et al., 2012). In addition, these could cause so many damages to the environment in the form of climate change, global warming and environmental pollution.

Since the country is identified among the polluters of the environment via the release of carbon and second country in the world that flare gas from the oil companies that operate in the region of the Niger Delta (Hassan & Kouhy, 2013), then it is expected that those companies operating under their watch are socially and environmentally responsible. However, that is not the case even though almost all the companies including manufacturing, banking and finance industries also contributed to the environmental pollution in one way or the other (Anomohanran, 2011).

However, some scholars in Nigeria believed that product recycling, carbon and wastages could lead to environmental degradation with little or no concern on their disclosure (Eweje, 2006; Jike, 2004). These could be the source of conflicts between the stakeholders and the operating firms in Nigeria e.g. the Niger Delta Militant.

Since corporate social and environmental disclosure (CSED) involves stakeholders therefore, this study utilized stakeholder theory as one of the theories suggested by Freeman, Wicks, and Parmar (2004); Friedman and Miles (2002). This is in addition

to agency theory that is used for corporate governance mechanisms (CGM). According to VanMarrewijk and Werre (2003), the perception of firms is to make the disclosure of social and environmental activities clearly, also to interact with relevant stakeholders. This is because, social and environmental issues have attracted a number of considerable interests recently.

Two components of corporate disclosure are CSD and CED (Sutantoputra, Lindorff, & Johnson, 2012) henceforth consider as corporate social and environmental disclosure (CSED). Studies on CSED has global attention with less consideration in Africa, particularly in Nigeria (Adeyemi & Owolabi, 2008). In other words, very few studies are conducted on CSED in Africa with less consideration to Nigeria as so many researchers concentrate on corporate social responsibilities and not environmental disclosure issues (see Eweje, 2007; Adewuyi & Olowookere, 2010; Amaeshi & Amao, 2009; Amaeshi, Adi, Ogbechie, & Amao, 2006a, 2006b; Idemudia, 2010; Renouard & Lado, 2012). Therefore, there is a need for more research in the area of CSED in Nigeria.

Furthermore, the entire world is concerned about social and environmental problems (Kassinis & Vafeas, 2006). One of the aims of social and environmental reporting is to inform stakeholders the effect of the environment as a result of the firm's activities on the society (Gray, 2010).

Furthermore, is to sustain a social and environmental responsible representation (Gray, Javad, Power, & Sinclair, 2001). Therefore, the declining of stakeholder's information irregularity is attained through CSED.

On the other hand, there is a serious need for companies to give more credible information on their CSED (Clarkson, Fang, Li, & Richardson, 2013). That triggered the issue of the quality of the CSED. According to Iatridis (2013), the quality of CSED is essential to the firms value and its performance. In addition, the CSED quality play an important role in the image of a firm in the eyes of the stakeholders (Cormier, Magnan, & Van Velthoven, 2005). Despite the studies on CSED quality therefore, up to this moment there is limited studies in Nigeria as regard to the quality of CSED.

The quality of CSED is measured using the indicators of social and environmental quality stipulated in the Global Reporting Initiative (GRI, 2011). The reason for the use of the GRI is because other measurement of CSED quality which include; counting the number of words, or counting the number sentences in the annual report in respect CSED, is weak (Berthelot, Cormier, & Magnan, 2003; Campbell, 2004; Guthrie & Parker, 1989). Furthermore, many studies suggested that, GRI is one of the best measurement of social and environmental quality globally (Boiral, 2013; Dumay, Guthrie, & Farneti, 2010; Guthrie & Farneti, 2008; Morhardt, Baird, & Freeman, 2002).

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In order to maintain the quality of disclosure therefore, corporate governance plays an important role (Cormier, Ledoux, Magnan, & Aerts, 2010; Khan, Muttakin, & Siddiqui, 2013; Michelon & Parbonetti, 2012). However, there are so many studies on differences in CSED and corporate characteristics with very few studies on internal factors affecting CSED (Haniffa & Cooke, 2000), notwithstanding the effort put on the governance structures. One of the major internal factors is corporate governance mechanisms (henceforth refers to as CGM) (Haniffa & Cooke, 2005).

The CGM in this research is composed of board independence, board size, board meetings, directors' qualifications, board committees, the independence of audit committee and non-executive director's ownership (Abbott, Parker, & Peters, 2004; Abidin, Kamal, & Jusoff, 2000; Adams, 2002; Adegbite & Nakajima, 2011).

In the early 1980s, CGM was not an issue (Leblanc, 2007). Some scholars argued that good CGM is connected with improved transparency and credible disclosure (Cormier et al., 2010; Gul & Leung, 2004). Generally, scholars use agency theory in CGM (Leblanc, 2007). This study also employs agency theory on CGM in addition to the stakeholder theory. That will improve accountability, because CSED is beyond the provision of financial disclosure if companies have wider environmental responsibilities (Gray & Bebbington, 2000). Therefore, this study utilized stakeholder-agency theory.

For better quality of CSED, it is vital to study its relationship with CGM. Even though, very limited studies have been conducted in this area, they are conducted in advanced countries and not in Africa particularly Nigeria (e.g Clarkson et al., 2013; Cong & Freedman, 2011; DeVilliers, Naiker, & vanStaden, 2011; Gray, Kouhy, & Lavers, 1995; Marquis & Toffel, 2011; Yu, Jian, & He, 2011). Furthermore, the results of the studies in the area of CGM and CSED are mixed, as some reported positive relationship between CGM and CSED, some studies reported negative relationship and other studies reported zero relationship. Thus, the study used non-executive directors' ownership to moderate the relationship between the CGM and CSED that arose from the mixed results of other studies.

Therefore, this study presently investigates the empirical evidence on the moderating effect of non-executive director's ownership on the relationship between CGM and CSED quality in Nigeria.

1.2 Problem Statement

According to KMPG (2011) and GRI (2011) statistics, CSED level have increased in the advanced and the developing countries in the last twenty years. For example, the majority of CSED studies is from Europe, which is (45%), Latin and Northern America (28%), Asia (20%), Oceania (4%) and Africa (3%) as reported (GRI. 2011). From the statistics, it shows that African countries had the lowest reporting on corporate social and environmental issues.

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Moreover, the research on CSED in advanced countries increase significantly and is abundant (Ackers, 2009; Bewley & Li, 2000; Deegan, Rankin, & Tobin, 2002; Deegan, Rankin, & Voght, 2002; Khan et al., 2013). However, this is not the case in Africa that has low disclosure on CSED and Nigeria is not in isolation despite being recognized as one of the environmentally polluted country in the form of gas, liquid and solid wastes (Aminu Hassan, 2012). The causes of the low CSED may be due to absence of legal requirement for CSED (Adelopo, 2011), lack of legislation (Adelopo, 2011; Adewuyi & Olowookere, 2010; Ifeanyi, Olagunji, & Adeyanju, 2011), lack of education on accounting or finance by the managers (Adeyemi & Owolabi, 2008; Smith, Adhikari, & Tondkar, 2005), inadequate awareness on environmental concerned (Gray, 2010), weak corporate governance (Abidin, Kamal, & Jusoff, 2000; Adams, 2002), weak reporting framework (Adeyemi & Owolabi, 2008), little pressure from public (Amaeshi et al., 2006a; Liu & Anbumozhi, 2009), negligence of the public concerned (Cormier et al., 2010), and the firm'sabilityy to identify environmental issues in addition to misperception of CSED benefits (Monteiro & Aibar-Guzmán, 2010).

In related development, in its 8th National Council on social and environmental reporting, the Minister of Environment, Mrs. Hadiza Ibrahim Mailafiya disclosed that firms in Nigeria contribute negatively to the environment with little effort to disclose the harm the firms caused to the environment in their respective annual report (Council, Environment, & At, 2011). The Minister further stated that, almost all companies contribute negatively to the environment in the process of production

or rendering services (Uwalomwa, 2011). For that reason, the companies are solely responsible for both social and environmental issues.

This is also peculiar with firms around the world as they failed to address environmental issues (Ball, 2007; Patten, 2002). This situation triggered an increase in stakeholders concerned with the attitude of firms toward environmental issues (Leszczynska, 2010). Therefore, firms did not put more efforts to meet the various needs of all stakeholders on the environment (Ball, 2007). In addition, many firms did not address social and environmental concerns (Kaghan & Bowker, 2004). This indicated the weakness of firms on socio-environmental objectives (Bewley & Li, 2000) and the ignorance on environmental matters (Bewley & Li, 2000; Clarkson et al., 2013) and Nigeria is not in isolation.

There is high demand for voluntary disclosures enhancement and the stakeholder approach has reinforced it and disclose that a company has many stakeholders and not just shareholders who can demand for information about the effect of the company's activities since they have the right (Lu & Abeysekera, 2014). Precisely is the value of CSED to the stakeholders (Clarkson et al., 2013; Smith et al., 2005) that trigger firms to reveal their information about environmental activities on their account. There is still the question of why CSED practice cannot meet the need of information to various stakeholders even though there are some growth and development (Cormier et al., 2011). Since current disclosures are not enough to satisfy the stakeholders, they demand more reporting and questionable information of CSED. Therefore, there is a

need for more studies and research into the quality of CSED which could clarify the sustainability of firms that concerns various stakeholders.

To tackle the low reporting in addition to the quality of the disclosure, however, O'Sullivan, Percy, and Stewart (2007), Cormier et al. (2005), Brammer and Pavelin (2008) argued that, CGM, which include board independence, board size, board meetings, audit committee independence, director's qualifications, and board committees, could play a major role where the said mechanisms is seen not only to enhance the reporting but to determine the quality of the disclosure.

In addition, CGM especially the selected variables of the study, which include; board independence, board size, board meetings, directors' qualifications, board committees and the audit committee independence are seen to be the main reason for the corporate failures of many firms as reported by the Central Bank of Nigeria (CBN) and Securities and Exchange Commission (SEC) of Nigeria (Adegbite & Nakajima, 2011) thereby resulting from the amendments of the rules governing the firms in 2011 by the SEC of Nigeria (National Council of Environment, 2011). Moreover, it is argued that the standard of reporting coupled with the volume of disclosure is determined by the CGM of the organizations (Adeyemi & Fagbemi, 2010). Some studies also attributed the agitations of the stakeholders in Nigeria on social and environmental disclosure to the weakness of CGM of the companies concerned and this is supported by both stakeholder and agency theory where the latter supported the argument of the more the company has good CGM, the higher the quality

of the disclosure of that company which in turn could address the complain of stakeholders (Adegbite & Nakajima, 2011; Adewuyi & Olowookere, 2010; Adeyemi & Owolabi, 2008; Okeagu et al., 2006). On the other hand, the stakeholder theory is bridging the gaps between the agents of the company and the stakeholders of the companies which include the communities, the shareholders, the government, the regulators and the non-governmental organizations. Based on the argument above, therefore, this study seen the need for more research on CGM. This is because it will effectively solve the problems of various stakeholders and address the low quality of CSED in Nigeria.

There is also contradiction and mixed result in respect to some studies on CGM and CSD, CED and CSED globally. The CSD means corporate social disclosure while CED indicates corporate environmental disclosure. Meanwhile, the combination of social and environmental disclosure is CSED. Those contradictory nature of past studies displaying controversies in addition to mixed results is linked to numerous factors such as changes in socioeconomic differences (Monteiro & Aibar-Guzmán, 2010), political and environmental differences among countries (Kabir & Akinnusi, 2012), companies' structures (Rahman & Ali, 2006), development of the informative items in disclosure index (Al-Tuwaijri, Christensen, & Hughes, 2004) and the errors during sampling (Ahmed, & Courtis, 1999).

Current evidence regarding the impact of firms CGM on CSED is affected by so many restrictions (Patten, 2002) that showed the contradictory nature of existing

findings (Gray et al., 2001). These restriction issues are about the dimensions, kinds and proxies of the variables, the diverse control variables, the size of the sample and the type, the time horizon, and the technique of estimation in respect of the association. Therefore, since there are irregularities in the results, the condition for moderation is present (Brammer & Pavelin, 2008). Thus, this study considered the need for moderation.

In line with the above argument and to tackle the problem of the mixed findings, Chobpichien (2008) disclosed that, the effectiveness of the board of directors relied on the structure of the firm. For instance, firms that owned by outside shareholders, larger, supposed to achieve much transparency in their annual report (Chobpichien, Haron, Ibrahim, & Hartadi, 2008). This is because, according to Morch, (1998), outside directors oversee the performance of all the officers of the firms as expected since they have no salary or bonus thereby resulting in their primary objective of watching the other officers, especially if they have shares in the firm.

Since, non-executive directors are also seen as outside directors, therefore, the larger the ownership of the board, especially non-executive directors, is associated with the level of disclosure which means an additional information in their annual report for transparency (Huafang & Jianguo, 2007). In the same vein, the larger the ownership of the directors the more they paid attention to internal mechanisms such as board independence, board size, board meetings, audit committee independence, director's qualifications, and board committees (Ahmed & Duellman, 2007; Brammer &

Pavelin, 2008; Mak & Li, 2001) which in turn could lead to more disclosure and its quality.

In Nigeria, the chairman of the board must be a non-executive director as prescribed by Securities and Exchange Commission of Nigeria, 2011 and the selection of non-executive director in Nigerian case is mostly drawn from non-executive shareholder who happen to come from certain region due to some crisis or pressure arise from the region however, this is not guided by any law rather is the understanding of the directors to curtail the agitation from communities where the firms operated. This is because, a lot of pressure from the communities leads to non-operation of the business, hence the performance of the business will definitely decline, thereby resulting to low reporting of the said firms since it was established that the higher the performance of a firm, the higher the disclosure of the said firm.

It was also established by Linck, Netter and Yang (2008) that non-executive director's ownership will likely improve board independence and board independence will increase the transparency and disclosure (Michelon & Parbonetti, 2012) in one hand and it will control CGM of the company on the other hand, therefore, the ownership of non-executive directors could moderate the relationship between CGM and CSED. Even though the result of Linck et al. (2008) is contrary to that of Akhtaruddin and Haron, (2010) yet, this study seen the likely hood that non-executive directors' ownership could play the role of moderator on the relationship between the CGM and CSED, thus, this study introduces non-executive

director's ownership as moderator to provide some insight into whether the non-executive director's ownership has an effect on the relationship between CGM and CSED quality.

This is because, the non-executive members, also seen as outside directors by some studies such as Mak and Li, (2001), could play a significant role on the disclosure of the company (CSED inclusive) (Brammer & Pavelin, 2008), could alsos reduce the agency cost of the company (Ahmed & Duellman, 2007) and could improve the CGM of the said company (Mak & Li, 2001). As a result of its role mention above, this study argued that non-executive directors' ownership could also strengthen the relationship that exists between CGM and CSED thus, protect the image of the companies in the eyes of its stakeholders. This is also supported by Akhtaruddin and Haron (2010) where they argued that, the role of the moderator is to strengthen the relationship between two variables.

Furthermore, most of the studies conducted in this area, did so using data collected from firms at a particular period of time (Al-Tuwaijri et al., 2004; Haniffa, & Cooke, 2000). In other words, the studies reviewed in this area used cross-sectional data. Consequently the current study tries to extend these efforts by conducting panel data to analyse the relationship between CGM and CSED quality in the context of Nigeria. This is due to, panel data could overcome the problem of inadequacy of observations and multicollinearity problems (Gujarati, 2004).

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Therefore, the motivation of this study is derived from the gaps identified above and justified the need for this research to fill in the gaps which in turn will contribute to the existing knowledge by addressing the research problem which is the influence of CGM on CSED quality as moderated by non-executive director's ownership.

1.3 Research Questions

This study is designed to answer the question related to the relationship between CGM and the CSED quality in Nigeria. Other specific questions are:

1. What is the trend of CSED quality in Nigerian listed companies for the period 2010 to 2014?
2. Does a corporate governance mechanism have relationship with corporate social and environmental disclosure quality in Nigerian listed companies?
3. What is the moderating effect of non-executive director's ownership on the relationship between CGM and CSED quality in Nigerian listed companies?

To answer the questions above, the research is supported with theories and findings of other empirical studies.

1.4 Research Objectives

Consistent with the main research question posed above, this study aims at evaluating the relationship between CGM and the quality of CSED of listed companies operating in Nigeria. Other objectives consistent with this aim are stated as follows:

1. To evaluate the trend of CSED quality of listed companies in Nigeria for the period 2010 to 2014.

2. To investigate the relationship between CGM and CSED quality in Nigerian listed companies.

3. To investigate the moderating effect of non-executive director's ownership on the relationship between CGM and CSED quality of listed companies in Nigeria.

1.5 Significance of the Study

This research is paramount for so many reasons, among which there are limited studies in the area, the use of panel data in the study, the establishment of disclosure quality measurement using GRI guideline where a checklist is drawn from GRI and is established base on the context of Nigeria, the use of more CGM, and most importantly, the use of moderator to ascertain the real relationship. The study also used both stakeholder and agency theory to support the relationship to support the

relationship. Moreover, the study determined the trend of CSEDQL. Most significantly, this study is unique in Nigeria and is among the earliest research, to the best of the researcher's knowledge, to find out CSED quality assessment and moderating effects of non-executive director's ownership. Based on the above reasons, this study contributes theoretically, practically and methodologically.

1.5.1 Theoretical Contribution

This study used both stakeholder theory, agency theory on CG perspective in relation to CGM over CSED quality. A number of studies (Fassin, 2012; Martin Freedman & Patten, 2004; Freeman et al., 2004; Hill & Jones, 1992) discussed the importance ofstakeholders theory in achieving either CSD or CED. However, this study contribution is combination of agency theory and stakeholder theory in enhancing CGM in relation to CSED quality. This is because, stakeholder theory takes account of the stakeholders concerned and their agitations, while the agency theory carter the dissemination of information between the companies and its stakeholders. In addition, stakeholders are more about issues relating to the dependent variable social and environmental disclosure while the agency is more about governance issues relating to the company's governance.

Many studies argued that stakeholders agitation can be predicted or align to the disclosure of the company. In other words, the more the social and environmental disclosure by firms in their annual report, the less the stakeholders' agitations and

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complains. However, the agency theory argued that the issue of disclosure of both financial and otherwise in an annual report of firms, depends on the how strong are the representatives of the firms which means CGM in this study. Therefore, agency theory argued that CGM, which include board independence, board size, board meetings, directors' qualifications, board committees and audit committee independence, determines the disclosure of any form in an annual report of firms.

Therefore, the contribution of this study as stated earlier, is combination of stakeholders' theory which tackled the dependent variable CSED quality and agency theory which is concerned about the CGM.

1.5.2 Methodological Contribution

According to Botosan (2004), quality identification as well as measurement issues is crucially essential which deserve serious attention and if framework for quality assessment disclosure is developed, it will be a good step in the development and advancement of CSED research. In addition, another researcher Beattie et al. (2004) draw attention to the problems and that need for more studies for enhancing new method of recording disclosure, identification of the quality of the disclosure and developing some proxies. For that reason, this study makes necessary step that will contribute to the scholars in the area of CSED by filling the gap in CSED quality literature using GRI. Also, the study used non-executive director's ownership as moderator which will add more to existing literature.

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In addition, the study contributed to the quality of social disclosure, environmental disclosure and both including their measurement with which will in turn improve on sustainability among companies in Nigeria and in Africa at large. Empirically, the study also improves the governance issues, especially at this crucial time where so many companies are facing such issue as major concerned.

Furthermore, the majority of the studies concentrated on one methodology (see Abbott et al., 2004; Abu-Baker & Naser, 2000; Adams, 2002; Burgwal & Vieira, 2014; Cho & Patten, 2013). One of which is over utilisation of Ordinary Least Squares (OLS). This method is not suitable for binary data that is obtained usually in content analysis (Gujarati, 2004). Therefore, this study focused on Feasible Generalized Least Square and that will overcome the problem of OLS (Gujarati, 2004) which is limitations of some prior research. Meanwhile, the issue of quality measurement will also be improved since the study established 29 checklists for CSED quality; this will enhance the measurement as well as the methodological issues concerning quality measurement. There is also an index which this study utilised. With the high number of checklists, the issue of index is appropriated. With the conduct of multivariable (several proxies) examination of the CGM and CSED of firms in Nigeria, the study contributes to enhancing the empirical value of CSED quality. This is in addition will broaden the perspective of examining CGM and CSED quality which provide a clear understanding of firm behaviour such that appropriate decision could be taken.

1.5.3 Practical Contribution

The finding of this study is further significant in the following manners; Stakeholders such as host communities and corporate bodies can benefit from the findings in the formulation of appropriate CSED determinants. Environmentalist can benefit from the findings through understanding the characteristics of a firm that discloses social and environmental issues and how it performed. Local and foreign investors can identify through the findings the nature of companies as to whether the firm is socially and environmentally friendly or not. They can invest their savings to maximize returns. Government and other policy makers like Securities and Exchange Commission of Nigeria (SEC) and Central Bank of Nigeria (CBN) can understand through the findings the clear effect of economic policies to the sectors under study. From the findings, they can get useful information for the determination of appropriate social and environmental policy to the economy.

In addition, the study targeted audience are employees of the company, the shareholders of the firm, the media both local and international, environmentalist, trade and industry associations and customers. Others are the suppliers, environmental regulators, local communities, scientist and educationist (Singh, 1996). Managers of companies will also find this study contributory since is expected to provide more insight on the problem of governance and CSED. Professional bodies such as Institute of Chartered Accountant of Nigeria (ICAN), Association of National Accountants of Nigeria (ANAN), Chartered Institute of

Management Accountant (CIMA) will benefit from the outcome of the study since they rely on financial disclosure of companies for their opinion and auditing. Finally, the finding provides potential researchers with areas for further study.

1.6 Scope of the Study

The study focused on assessing the relationship between CGM and CSED quality of Nigerian listed firms. The CGM is limited to board independence, board size, board meetings, directors' qualifications, board committees, the independence of audit committee and non-executive director's ownership. Meanwhile CSED quality is concerned on the checklist on social and environmental disclosure as provided by GRI guideline. Due to inconsistency in the literature, the study investigates the moderating effect of non-executive director's ownership on the relationship between CGM and CSED quality. The study used data of all listed firms in Nigeria for the period of five years (2010-2014). The choice of time frame is as a result of recent changes in the corporate governance code by the Securities and Exchange Commission (SEC) of Nigeria (2011) which include the structure, composition and responsibilities of the firm's officers for well organised internal governance. Those companies with short of annual report between 2010 and 2014 were excluded. This will provide a better result for the CSED trend of the firms given the environmental transformation of the country.

1.7 The Structure of Thesis

The thesis consists of seven chapters. After the current chapter as Chapter One, Chapter Two provided an overview of CSED and CG in Nigeria. While, Chapter Three is a review of the relevant literature. The chapter explored literature on the quality of CSED and their relationship with CGM. Previous studies on the relationship between CGM and CSED quality.

Chapter Four discussed the theoretical framework of the study. It reviewed some relevant theories. It also discussed the hypothesis for the study

Chapter Five highlighted the methodology for this study. It commenced with research methodology and source of data, population as well as measurement of all the variables including the methods and design.

Chapter Six highlighted the result and discussion of the study. It commenced with descriptive statistics and later the inferential statistics.

Chapter Seven discussed the summary of the findings of this study, the policy implication, limitation of the study and recommendation with further area for research.

CHAPTER TWO

ENVIRONMENTAL CONTROL AND CORPORATE GORVERNANCE IN

NIGERIA

2.1 Introduction

This chapter started with environmental control in Nigeria and its firm's attitude toward the environment. It continued with the establishment of the concept of CGM and traces the development of CG code in Nigeria. The remaining parts are devoted to relevant laws on environment issues in Nigeria, sanctions for defaulters of the laws, the development of environmental ministry in Nigeria and the emergence and development of CG in Nigeria.

2.2 Nigerian Environmental Control

The management of environment in Nigeria begun in 1980s. However, this is modified as a result of an effort made by international companies, that performed through an agent, to dispose harmful substances in the form of waste in the Niger Delta area of Nigeria (Odoemene, 2011). Therefore, the Nigerian government in 1998 promulgated Decree No.42. Based on that, it becomes an illegal for firms to pollute the environment in the form of waste or harmful substances. The decree provides for an agency called Federal Environmental Protection Agency (henceforth called FEPA) to control waste and pollution (Nigerian Constitution Decree, 1998). However, the

decree was revised in 1992 which gave FEPA a wider coverage in terms of control and penalties. The area to be covered by FEPA include: the quality of water quality and air, environmental security, level of disturbance and the control of dangerous ingredients. These signify the initiatives made by subsequent companies to improve the environmental solution of the country. However, on 1999, the Federal Government of Nigeria put more effort to tackle the concern of environmental stakeholders about their problem with the pollution by operating firms in their respective region. That also led to creation of Ministry of Environment by the then, President of Nigeria Obasanjo. The Ministry overcomes the functions of FEPA.

This development made the country to be in controlled of pollution, environmentally, culturally and health wise in line with the evaluation of global standard and the regulating framework is in full force and is backed by various rules and laws as stated below.

2.2.1 Environmental Waste and Management Rules in Nigeria

The Environmental control is in place to overcome the exploitation of natural sources and to promote economic growth, which in turn will result in environmental stability and sustainability especially by the firms and its surroundings. The modern environmental law manages environmental violations. Therefore, among the environmental laws in Nigeria is Act 30 (1) of the Constitution of Federal Republic of Nigeria 1989 which assures the right to sensibility to clean air, water and land.

Violation of this Act could lead to imprisonment of at least two years (Nigerian Constitution Act, 1990). There is also a criminal act in respect of the any company that pollute a community Act No. 88 (1988). This act provides punishment for polluting part or entire communities. The punishment includes jailing, payment of fines and suspension of the company or firm from its business (EIte & Ibok, 2013; Effiong & Etowa, 2012). Others include Act 1979 for gas re-injection, which control flaring and emissions of gas into the atmosphere and re-injection of the gas (Hassan & Kouhy, 2013).

2.3 Corporate Governance Definition and its Development

Corporate governance basically relates to how an organization is controlled (Cong & Freedman, 2011). In addition, Salo (2008) described it in terms of management and control of its system by organisations. However, Aryani & Prabowo (2011) expressed CG as a system of which a company is govern and guided which involve the stakeholders and investors.

In accounting, CG is an issue of concern, especially its procedures and components. For example, Bhagat and Bolton (2008) mentioned that CG is the procedure by which organizations are made tuned in to the privileges and desires of stakeholders. While Khan, Muttakin and Siddiqui, (2013) suggested that it is association among various members in identifying the route and performance of organizations.

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Since CG determine the relationship between a company and its stakeholders (Chhaochharia & Laeven, 2009), therefore, is considered as successfully describing the privileges and obligations of each group of stakeholders in the company (Ahunwan, 2002). Under this point of view, Kochan & Rubinstein (2000) insist that, the government framework changes from a principal-agent to a group manufacturing design, and the government become crucial on projects to make sure is effective and increase in quality issues, rather than just management and to spread the designed value in ways that sustain dedication to several stakeholders.

In line with the definition above, CG has two components consist of internal factor and external factor (Miller & Setley, 2010). In their study, they consider internal factors as board characteristics and external factors as stakeholders and investors. Customarily, there was little interest on CG (Becht, Bolton, & Röell, 2002). The term CG hardly ever persisted before the 1990's (Cheffins, 2012). However, recently CG has extremely drawn attention worldwide. Some aspects of CG are modified in addition to the improved issue with CG problems which consist of unfavourable takeovers, institutional investors increasing significance, improving interest to directors' legal responsibility, stress for more effective organisations and financial issues and regulations (Cheffins, 2012; Leblanc, 2007).

Several major business scams rocked companies worldwide followed by business breakdown. Among the companies affected with this CG problem is a popular firm called Enron, which operates in the United States. Others are Coloroll and later in

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United Kingdom Barings company, HIH Insurance Ltd, Sydney, finally Parmalat in European countries (Bauer, Braun, & Clark, 2008; Cheffins, 2012; Chhaochharia & Laeven, 2009; Kolk, 2008). Consequently, more strict guidelines, requirements, and concepts of CG are enforced in reaction to the scams (Chhaochharia & Laeven, 2009). Cheffins (2012) claimed that good CG is unattributed to set of guidelines only, rather an on-going procedure of appropriate technique execution targeted at increasing long-term value and development.

What comprises good CG may differ in the context of a particular organisation which are suggested and are made by scholars. However, most requirements of best practice, highlight enhancing CG techniques and disclosure in some areas which include: board framework, review and controls of finance, executive settlement, investor privileges, and control of the market (Chaghadari, 2011). A broader viewpoint for CG is strictly specifying some issues as maintainable economic development, objective accomplishment and socio-economic stability.

2.3.1 Corporate Governance in Nigeria

In the development of CG in an organisation and its performance through financial growth and development of any country, and the need to make sure the CG of these organisations meet up the expectation of the stakeholders, some developing countries in Africa such as South African have taken actions to overcome CG issues (Rossouw, Watt, & Malan, 2002). In the case of Nigeria, they paid high attention for the efficient

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CG of public firms. For example, in July, 2000, the Securities and Exchange Commission (SEC), constituted a Panel on CG of Nigerian Public Firms (Ahunwan, 2002).

After the Panel's review, it was presented in April, 2001, in which it laid down suggestions about the transparency and accountability and the control of public entities. The Panel arrived its suggestions after examining the situations in Nigeria and the global standard for best practices (The Report of the Committee on CG, 2001).

However, the need to overcome the deficiency of CG in Nigeria was acknowledged when the 28th Annual Accounting Firms Meeting organized by the Institute of Chartered Accountants of Nigeria (ICAN) on Sept 1998, had obligated, to re-emphasize the dedication of the carrier to be responsible and committed to good CG and to impress the community that business problems are not synonymous with review failures but a good CG (Adegbite & Nakajima, 2011).

According to Yakasai (2001) there were significant evidence of CG progress in Nigeria, in the financial sector specifically banking sector. Although not much is known about the condition of CG in Nigeria, there is evidence of existing studies (Semiu, Babatunde, Adeyemi & Fagbemi, 2010; Ifeanyi et al., 2011), in respect of financial reporting structure in Nigeria. Furthermore, Adeyemi and Fagbemi (2010) offer some solution to the problem of CG laws in Nigeria. The primary lawful structure for CG in Nigeria is the Companies and Allied Matters Act (CAMA), 1990

(CAMA, 1990). Some recommendations have been made to the designs of CG within each nation thus, make it possible to be modified over time to accommodate some changes in business and social environment (Yakasai, 2001). This is particularly real in Nigeria, where the modification is allowed in company's law which offered a solution to the present conditions in Nigeria (Ifeanyi et al., 2011).

While the CG control promulgated by the government may appear to be quite extensive, the systems for administration and conformity are very poor or worthless (Ahunwan, 2002).

2.3.2 Corporate Governance Mechanisms in Nigeria

Corporate governance mechanisms are those strategies both internally and externally put in place to guide, monitor and even control how organisation perform its duties, activities and reporting in line with a stipulated rules and guidelines (Upadhyay, Bhargava, & Faircloth, 2014). There are two types of CGM in Nigeria, internal CGM and external CGM. The internal CGM of a company is the one that is contained in the Code of Corporate Governance of public companies in Nigeria issued to the company by the Securities and Exchange Commission of Nigeria (SEC, 2011). The commission revealed the structure, composition, duties and even the responsibilities of each officer of the company for good governance of the company. While the external CGM is those factors that stimulate the governance structure of

the company. This could be government policy, regulatory bodies and financial institutions among others.

2.3.3 The Securities and Exchange Commission of Nigeria

The SEC is the highest capital market regulator in Nigeria. It is an institution that governs how companies operate in Nigeria. One of its responsibilities is to protect all the players in the Nigerian Stock Exchange market, thus, it provides the regulatory framework for the development of the market. It has an act that gives it power for example, section 37 and section 45 of Investment and Security Act of Nigeria empower SEC of Nigeria to monitor and inspect all the books of record of the companies in Nigeria should be properly kept and up to date. The said Investment and Security Act of Nigeria added that, all companies registered in Nigeria must keep annual audited financial report and statement with the Nigerian SEC. The SEC has provision governing the corporate organisations for good governance.

2.3.4 The Provision of Securities and Exchange Commission of Nigeria (2011)

The SEC of Nigeria (2011) gives a provision of the company's governance that, the company most have a board of directors. The SEC also outline the duties of the board of directors which include, the management of the affairs of the company, policy implementation of the company, monitoring the efficiency and effectiveness of the company's internal control system, compensation of the members of the board after appraisals, ensuring a credible and transparent financial and non-

financial reporting (disclosure), ensuring an ethical standard in the process of delivering its duties and finally, insurance of compliance with Nigerian laws by the company (SEC, 2011). The SEC also provides that there must sufficient number of directors on the board and they should be composed of executive and non-executive directors because according the SEC, the composition of the board will translate into the diversity of experiences and maintained independence, integrity, compatibility and regular attendance of a meeting. In addition, the board of the directors must have higher non-executive directors and according the SEC, this will ensure the independence and transparency of the board. There is also a provision that the board should meet at least once in every quarter of the year and each director should at least have attended two-thirds of all the sum of the annual board meetings. There is also a provision that the board members should be at least five members and to some extend more members this is to ensure an adequate monitoring of the firm's activities and compliance behaviour.

The composition of the board should be as follows;

i.   Executive directors and non-executive directors include the chairman.

ii.   Among them non-executive directors should be higher and there must be at least one independent director.

iii.   The managing director (CEO/MD) position and the chairman of the board position should be clearly separated.

iv.   The chairman of the board must be non-executive director.

The SEC similarly made it clear that the executive director should be knowledgeable in the area of the company's activities and necessary qualification that will prove the directors roles on any assignment and responsibility given to the chairman. In addition, the non-executive directors should have the required experience that will make them handle the affairs of the company properly. Furthermore, the SEC (2011) provides that, the board should delegate its duties and responsibilities to committees formed by the board. That means the board will perform its duties through the committees. The board is responsible for the determination of the size, composition and designation of responsibilities, including their area of expertise of the committees. The committees to be set include and not limited to audit committee, risk management committees, remuneration committee and/or any other committee that the board deemed it necessary to form e.g. social and environmental committee. The SEC provides that at least one of the members of the committees should have financial expertise on either accounting or financial management or relatively closest qualification.

The SEC also provided that, the audit committee should have executive and non-executive members with the expectation that, the non-executive members should be at least 50% of the audit committee members. This is to ensure their independence and compliance with regard to the relevant provision as the non-executive members do not have an interest or salary in the company.

While the external CGM are those institutions that guide and monitor the market as well as the customer protection against corporate organisations. These include, Corporate Affairs Commission of Nigeria that registered all companies in Nigeria, Central Bank of Nigeria which is responsible for regulation of banks and financial institutions, National Insurance Commission that is responsible for the regulation of all insurance companies in Nigeria, Financial Reporting Council that enforce compliance of standard of reporting and auditing by all corporate organisations and finally the Securities and Exchange Commission of Nigeria which is the apex capital market regulator which also monitor how corporate organisations govern internally through their board.

2.4 Summary of the Chapter

The chapter expresses the environmental issues and control in Nigeria. In addition, the corporate governance is also defined in addition to discussion of its related development in Nigeria. Therefore, examining previous literature works would be the next step in order to expose whether CG has improved CSED quality. Paying attention to the level to which company environmental reports, designed to fulfil the needs of stakeholders' information which is an issue of internal CG in Nigeria and finally discussed all the relevant institutions that govern corporate organisations in Nigeria. Therefore, next chapter reviewed the relevant literature on CSEDQL and CGM coupled with an identification of gaps from the literature.

CHAPTER THREE

LITERATURE REVIEW

3.1 Introduction

This chapter is devoted to reviewing the literature on CSR generally and CSED in Nigeria, corporate governance and CSD, corporate governance and CED, the relationship between corporate characteristics and the quality of CSED; previous studies on the identification of CSED and assessment issues. Finally, the study discussed research conducted previously which explored the basis for the failure of other prior studies to come up with consistent results. This is coupled with an identification of any gaps in the literature.

3.2 Corporate Social Responsibility

Corporate social responsibility (henceforth called CSR) is a global phenomenon that attracted scholars around the globe and have been in existence nearly a century. It was established for sustainability of corporations. For companies to meet the demand of the society without compromising the future, corporate social responsibility as a product of sustainability, which consist economic, social and environmental issues come in. CSR could be defined as the communication and flow of information on both economic, social and environmental issues and their related impact on an organisational economic performance directly or indirectly in relation to an interest

group in a given society (Sharp & Zaidman, 2010). Furthermore, Chapple (2005) as a means by which a company reports its activities on social and environmental issues in relation to the company's performance and its related techniques. This is also seen as an ethical, responsible behaviour of corporations. The term CSR (also called sustainability reporting) is composed of both economic, social and environmental concerned. In line with GRI, (2011) also called G3 version, it describes CSR as a combination of economic disclosure which consist of economic performance, market presence and indirect economic impact.

Meanwhile, social disclosure consists of four categories in accordance with the GRI guideline which include labour practice and decent work, human rights, the society and products responsibility. The labour practice and decent work are composed of employment, occupational health and safety, training/education and diversity and equal opportunity. The human rights include, security practices and indigenous rights. Meanwhile the society include, community, corruption, anti-competitive behaviour and compliance. Finally, products responsibility is composed of customer health and safety, product and service labelling, marketing communications, customer privacy and compliance as the last category. These all fall under social disclosure in the GRI which are also considered in the checklist of the study as the ones that are relevant to Nigerian environment.

Whereas, the environmental disclosure index consists of material, energy, water, emission etc. Therefore, for a company to have good CSR then it has been the one

that combine economic, social and environmental disclosure in their financial statement for it to be sustainable.

Sustainability means the ability for firms to meet up the demand of their society presently without the compromising the future of the society which include social equity, economic efficiency and environmental performance (Labuschagne, Brent, & van Erck, 2005). In fact, companies of these days have much interest on sustainability and for that to be sustained, they tend to be more interested in those issues of economic, social and environmental. According to World Bank Report (2011), 60% firms globally, especially industrialised ones, do pay attention on sustainable development by disclosing more on economic and social issues with less attention to environmental issues simply because it is voluntary in nature. Even though sustainability reporting is designed to cater for overall performance of companies be it economic, social and environmental, it was reported less on social and environmental globally with very insignificant reporting behaviour in Africa as reported by Labuschagne et al., (2005). Therefore, this study focused on social and environmental disclosure so that it will enhance the contribution by African on sustainability as there are inefficient studies on social and environmental as discussed earlier.

In the early 1960's there were so many debates on CSR of an organisation as whether the action of the company will not translate into good CSR or bad as the case may be (Du, Bhattacharya, & Sen, 2010). This is done through the campaign for

CSR by Organisation for Economic Co-operation and Development (also called OECD) in 1960 with Canada as a major contributor to the development of CSR globally (Vanhamme & Grobben, 2009). This precisely explained the trend of CSR in the world today as it has been an issue of concern for the past 55 years going by the development of CSR as mentioned by the OECD. With the establishment of the relationship between CSR and company's performance in relation to its sustainability, however, the attention by firms could be more focused on the CSR due to the public and stakeholders concerned.

Moreover, as scholars established a positive relationship between CSR and organisational economic performance, CSR and organisational image therefore, all companies around the globe, especially those from Europe, USA, Canada with few from Asia paid much concern on the CSR be it CSD or CED and sometimes both CSED (Moskowitz, 2010). Therefore, this indicates there is a need for more disclosure of social and environmental information since is established to have a positive impact on an organisation and any company that want to protect its image globally most accounts for social and environmental issues surrounded by it.

3.2.1 Corporate Social and Environmental Disclosure

According to Uwuigbe (2011) the major element in CSR is social and environmental issues which are all issues that could be accounted for by an organisation through the disclosure of such in their financial reporting be it in qualitative or quantitative

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terms, this is because it will boost the image of the organisations in their respective community, hence, it will promote the peace between the organisation and the stakeholders in the community in addition, to the sustainability expectation of the firms in their respective societies. The Uwuigbe also emphasize that, social disclosure was the first issues in between 1960 and 1970 when companies used to give information in qualitative form about social issues to the stakeholders. However, around 1981 to 1990, the companies shift from social to environmental disclosure, the author added.

While from 1990 up to this moment, companies globally report both social and environmental information on their annual report and the trend is increasing rapidly, especially in the advanced countries with less in Asian countries (Rizk, 2006). In the case of Africa, however, Uwuigbe (2011) emphasize that there were insignificant disclosure on CSR be it social, environmental or both with very few in Nigeria.

From the fact that CSED is part of CSR, therefore, CSED could be seen as a joint or separate disclosure of information on social or/and environmental issues in qualitative, quantitative terms or both in line with a global accounting standard like International Accounting Standard (Rizk, 2006). Even though, CSED is voluntary in nature, however, there is tremendous increase in CSED in the world due to stakeholder's agitation and economic benefits that surround the disclosure of such by so many organisations (Delmas & Blass, 2010).

In Europe, for example, GRI (2011) reported that, Europe has the highest number of disclosures of social or/and environmental information up to 45%. Meanwhile, Latin America accounted for 28% of CSED but Africa is the least and it accounted for only 3% of CSED globally. With this simple percentage analysis, therefore, one can conclude that, Africa suffered most in reporting behaviour of social and environmental issues around the globe as disclosed by GRI. In addition, in its annual survey in 2013 however, KPMG (2013) conducted a survey globally, which involved 4100 large companies across 41 different countries consist among others USA, Canada, Chile, Brazil, Cambodia, United Kingdom, Belgium, France, Germany and Norway. Others are New Zealand, Malaysia, Japan, China and India. Also the countries include Nigeria, South Africa and Angola. The survey indicates a high rate of CSR in USA, China, Japan, Canada and United Kingdom. While Nigeria is among the least, Angola was having more insignificant reporting on CSR. For example USA has 27%, Japan 13% and Nigeria has less than 1% of CSR among its firms which could be attributed to low studies in the area. That revealed a need for more studies on CSR in Nigeria.

In terms of number of items disclosed often, empirically studies paid more attention to social disclosure than environmental (Khan et al., 2013; McKendall, Sánchez, & Sicilian, 1999; Roy & Ghosh, 2011). Those studies in this area also considered more of contents analysis usually number of sentences, volume of disclosure, checklist and binary operation as either disclosed or not (Gray & Bebbington, 2000; Gray et al., 1995; Gray, 1992, 2010; Haniffa & Cooke, 2000; Krippendorff, 2004). These

claimed are more consistent in advance countries as confirmed from the percentage of social and environmental disclosure revealed by GRI. Even though Asian countries contributed little in this area, however, Africa is the least as indicated earlier. Yet, among the African countries, South Africa and Egypt firms disclosed social and environmental issues more than any country in Africa (Rizk, Dixon & Woodhead, 2008) with little effort on environmental disclosure in Nigeria (Uwuigbe, 2011). This made it possible to seek more attention on CSED in Africa in general and Nigeria in Particular after looking at the trend of CSED in Nigeria.

3.3 Corporate Social and Environmental Disclosure in Nigeria

Corporate social disclosure (henceforth called CSD) is a global issue that attracts global concern, especially by the players and stakeholders around firms. As indicated earlier, for example, GRI (2011) expressed the level of CSD (CED inclusive) Europe is the highest with the 45%, followed by Latin America with 28% and the least is Africa 3%. Africa suffered most in reporting behaviour of social issues as disclosed by GRI. Yet, among the African countries, South Africa and Egypt firms disclosed social and environmental issues more as compared to their African counterpart (Rizk, Dixon & Woodhead, 2008).

In the case of Nigeria, it was reported by Amaeshi, Adi, Ogbechie, & Amao (2006) that the country is among the least in terms of CSD in Africa. Other researchers that followed the same suit are Adewuyi and Olowookere (2010) and Okeagu, Okeagu,

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Adegoke and Onuoha (2006). Adewuyi further stated that, even though Nigeria is among the top countries in Africa that pollute environment, is still having the poorest disclosure about social and environmental issues. For instance, the World Bank reported on the trend of pollution in Nigeria. It disclosed that, Nigeria with population 170 million and economic growth of 9% recently, is among the countries that have serious environmental issues in addition to the social issues (World Bank, 2011).

Several studies are conducted on CSD with few conducted in Nigeria (Adegbite & Nakajima, 2011; Adewuyi & Olowookere, 2010; Adeyemi & Owolabi, 2008; Okeagu et al., 2006). Moreover, there was no attention so far on the quality of such disclosure. Even though, there were few studies on CSD in Nigeria with the ignorance of the quality of the disclosure, banking sectors played a significant role on CSD (Uwuigbe, Egbide, & Ayokunle, 2011). This is due to their financial discipline, high standard of reporting among their counterpart and monitoring mechanisms put in place by the banks.

The available studies on CSD globally will not hinder such study in Nigeria because of differences in economic, geographical location, and mode of reporting, standard of reporting, government policy and CG which could be among the factors that may lead to lower CSD in Nigeria. In addition, this study, particularly pays attention to the quality of the disclosure and not just disclosure as perceived by so many researchers. This could be seen in Gorla, Somers and Wong (2010) who prescribed

quality in terms of either value or good service or meeting the requirement of a particular standard and best practice (such as GRI guideline) and finally to meet the need of customer in terms of satisfaction and expectations. While Dranove and Jin (2010) see quality in terms of disclosure as variability of information, systematic measurement of information by certification agency and availability of report about a quality of a product in a given market. Therefore, the quality of information on a standard of best practice is the one that is relevant to this study as is to use GRI guideline as one of the globally accepted best practice in terms of CSED disclosure quality.

3.4 Corporate Governance and Corporate Social and Environmental Disclosure

Studies about CG and CSD, CED and CSED were reviewed. The objective is to give an insight on previous literature which in turn explores some gaps from the literature in line with the objectives of the study. Therefore, the study looked at the relationship between CGM and CSD first. Thus, Haniffa and Cooke (2005) analysed CSD in Malaysia. Among which Societal and CG were considered. Content analysis techniques were employed with a sample of 139 firms in 1996 and 2002. Descriptive research design with parametric and nonparametric tests indicated significant variations in CSD with the little legal guideline. While other factors in the study were not associated with CSD.

Still in Asian countries, Naser, Al-Hussaini, Al-Kwari, and Nuseibeh (2006) empirically, examined CSD in Qatar. They examined the impact of organization size, organization risk and ownership on CSD. Content analysis using checklist was employed with 15 classes of the checklist. These include evidence, concept, place and amount. 21 Qatar firms were examined for one year between 1999 and 2000. CSD was discovered to be associated with the firm's size and firms' risk However, evidence shows that other factors had little impact on CSD.

In addition, Ghazali (2007) investigated the impact of ownership on CSD in the annual report of Malaysian firms. The ownership also involves the structure which includes director ownership, ownership concentration and government ownership. Other variables examined were organization size, industry type and profitability on 87 firms as sample in 2001. The CSD checklist is used to evaluate the level of CSD which include environmental disclosure. The outcomes revealed that director ownership and that of government have impacted positively on CSD. However, ownership of the largest investors was not significant in explaining changes in CSD. Both firm's industry type and profitability were not related to CSD.

For example, Cooper and Zainudin (2009) examined quality of CSD, the area covered and method of reporting of CSD across countries which are nine for the period of 2005. A sample of the countries is composed of 315 companies. Company size, industry, leverage and profitability were examined. Quality is calculated as first, the quality of the characteristics and detail of disclosure using strategy identical

to Toms (2002). The area of disclosure on issues is extracted from annual report or a separate report.

The study used some checklist extracted from GRI (2002), on quality is allocated as from 0 = nondisclosure; to 3 = monetary quantitative disclosure. The result showed that profitability significantly affects disclosure. Meanwhile size was also significant but environmental sensitivity by sectors showed up to be negligible. However, bigger firms were significant to improve disclosure in environmentally sensitive industries.

In a related development, García-Sánchez (2008) documented newly established technique for CSD by firms. The study used an information part of companies as dependent, with section categories in companies with problems, and categorised as non-monetary and qualitative considered as same in Spain. Corporate features examined consisted of dimension, profitability and type of industry using 32 sample quoted firms. Particularly, two categories of firms were recognized. The first is the disclosure of quantitative details on products relevant to the environment and response to community. Meanwhile the category was revealed based on the environmental issues. It was found that first category pays much interest to the CSD than the second category. Though, profitability is not related to the level of CSD.

In contrast, Mio (2010) analysed aspects impacting sustainability quality and CSD of firms in Italy. The analysis provided the association between disclosure quality

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and the sustainability technique, complexity, maturity, territoriality and interaction, growth, privatisation as supported by CSR. They evaluate the quality of reports as designs in the globe (GRI-G3 and Accountability 1000). Using 0-5 scaling of ranging from 0 as a non-principles and 5 fully principles. From the analysis complexity and territoriality coupled with privatisation impacted the disclosure quality with zero correlation between disclosure quality and other variables.

In relation to environmental disclosure, however, studies were reviewed and some relationship was established in respect of corporate governance. For instance, Halme and Huse (1997) investigate the interaction among CGM and the reporting of company's environmental issues in their financial reports, considering industry factors as well as country factors. Empirical evidence is collected from Finland, Norwegian, Sweden and Spain, with a sample of 40 companies. The environmental reports were examined with three-class of information: thus, little or no information on the environment; an individual report; and policy accomplishment of environment. CG variables used are ownership concentrate and board size. The outcomes showed that, CG impact is positively relevant to CED with no relationship with ownership concentration.

To establish the effect of CGM on CSED, Magness (2006) examined Ullmann's hypothesis and technique, customized by financial performance, using stakeholder strength to comprehend firm's CED. Using 44 samples, regression technique was used to analyse annual reports of CED the mining sector in Canada at the end of

1995. A disclosure score was used to evaluate CED. The scores developed consist of monetary products compared to non-monetary and qualitative products, future-oriented products compared to historical products.

However, using internet disclosure, Arussi, Selamat and Hanefah (2009) examined the connection between CED and ethnic background of CEO. Other variables examined include leverage, the firm's size and profitability. The study is conducted in Malaysia using 201 firms as sample size in 2005. The technique used for the sample was random. A linear regression technique was employed in the analyses. It was found that the technology, CEO ethnicity and firm's size impacted CED positively. While lifestyle of personality is negatively associated to financial disclosures others are not associated with CED. Others like profitability and leverage have no significant relationship with financial disclosure and CED.

Meanwhile McKendall, Sánchez and Sicilian (1999) analysed the effects of CGM on environmental offenses which is non-disclosure of environmental details as serious offence and otherwise as non-offences. CGM analysed consist of CEO duality, independent directors, shares owned by the authorities of the board, the committees of social responsibility and the board lawyer's composition. While controlling for business profitability, company productivity, firm dimension and company concentration using samples of 150 US firms, with Tobit regression analysis from 1985 to 1987, the results showed that the shares of company authorities on board

impacted positively on environmental offenses. In a nutshell, all other variables were not found to be significant on environmental offenses.

Moreover, Roy and Ghosh (2011) examined the relationship between performance and CED quality. The study is conducted in Asia composed of seven countries. In line with Clarkson et al. (2006) content analysis, the outcome showed that performance and CED were not endogenous and relevant. Remarkably, analysis exposed that environmentally sensitive industries revealed less details which in turn lower quality disclosures. In the same way, firms from nations with high emissions also exposed a low quality of disclosure.

On the part of the voluntary disclosure (henceforth VD) which is composed of both financial and non-financial disclosure (Chobpichien et al., 2008), however, VD is reviewed since it engulfed CSD and CED. Thus, Haniffa and Cooke (2000) analysed the association between CGM and social voluntary disclosure of Malaysian firms using 167 sample in 1995. The study used index to arrive at the disclosure. Among the variables used, only non-executive directors, chair and percentage of families on board were negatively and significant in explaining changes on voluntary disclosure with others found no relationship.

In a related development, Gul and Leung (2004) empirically, analysed the connection between the proportion independent directors also known as outside directors on board and VD (CSED inclusive). A regression analysis was employed

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and the findings of the studies using 385 listed firms in Hong Kong were examined for the period of 1996. With variables as company dimension, leverages, profitability, company's auditor, audit panel and company's growth. Others include, listing status, liquidity and type of industry. Outcomes revealed that manager's willingness to reveal additional business details may be influenced by the structure of the board in addition to its quality. Moreover, the variable CEO duality decreased VD. Outcomes also showed that companies with large number of professional among the directors reduced VD. Remarkably, a negative relationship between the duality of CEO and company VD exist.

Furthermore, Chau and Gray (2002) studied the structure of an organization ownership in relation to VD (CSED inclusive) for listed firms in Hong Kong and Singapore. Using annual reports for the year 1997, with 60 firms as sample in Hong Kong and 62 firms in Singapore, VD index scores with a simple average calculated as total VD scores divided by the highest possible VD scores. A multiple regression technique was used. Company dimension, dimension of auditors, multi-nationality and profitability, were the control variables in the study. Outcomes revealed that shares owned by outsiders are related positively with VD that include social and environmental disclosure.

In India, Hossain and Reaz (2007) analysed the relationship among firm features and VD using 38 financial firms as sample. In the study CSED is one aspect of VD. The result found to be significant on assets in-place and company size in relation to VD,

while others were insignificant in explaining changes in VD. This research suffered some shortcomings because it considered only one company for one period.

In their analysis, Barako, Hancock, and Izan (2006) examined CGM, ownership structure and firm features with voluntary disclosure which include CSED. The sample comprised of all 54 Kenyan firms. It considered 10 years with an index to evaluate VD by firms. CGM is composed of: - board structure, board management and audit committee. The outcomes showed that VD (CSED inclusive) is affected by organisations CGM, ownership framework and characteristics of firms.

Moreover, Lim, Matolcsy and Chow (2007), explored the relationship among board structure and VD (CSED inclusive) in Australia using 181 sample of firms. The study utilised checklist which is composed of 67 items. Two-stage multivariate analysis was utilised to overcome the endogeneity issue, First level they estimated the relationship between the independent directors and company characteristics with VD. They later examined the impact of board structure on VD in the second stage. The outcomes showed a significant relationship between board structure and VD. While insignificant relationship was detected between board structure and disclosure.

Meanwhile, Huafang and Jianguo (2007) analysed the effect of ownership and the structure of the board on VD which include CSED of listed firms in China. A disclosure index was designed for VD of company, strategic, financial firms and non-financial firms. The structure of the ownership involved block holder,

managing, legal-person, state and foreign stocks possession. While the structure of the board involved the percentage of non-executive directors and that of CEO duality, company size, company growth, leverage, and the reputation of auditor were controlled. With 559 firms as sample for 2002 only, the outcomes using regression research showed that foreign stocks possession and greater block ownership are positively related with VD. But, other factors were not found to be associated with VD and finally, CEO duality decreases disclosure.

Rizk, Dixon and Woodhead (2008) analysed firms in Egypt on 60 sample to deal with CSED in 2002. A checklist was used with 34 items using un-weighted index. The effect of industry account, private ownership and government ownership on CSED were observed using an ANOVA test. The research showed that the CSED is low. The result also showed that membership of industry is found to be significant in explaining changes to the CSED. In inclusion, firms own by government disclose more in terms of employee while private firms disclose more on environmental information. The research suggested the increase in sample size.

Michelon and Parbonetti (2012) examined the consequences of CGM, using board attributes which includes, management, composition and structure, on sustainability disclosure that include CSED. Other variables were controlled for firms'- certain attributes. CSED was identified making use of content analysis of annual records of the year 2003 and sample of 114 European and American companies. Furthermore, a positive relationship was detected on community influence and CSED of the firms.

Consequently, the research moderately supports the concept that a good governance improves voluntary disclosure of companies.

In their study, Post, Rahman and Rubow (2011) analysed the association between composition of boards and both environmental and social responsibility disclosure (henceforth called ECSR). They used website by both government and the firms to arrive at ECSR. In the cause of determine ECSR, 26 products classified as governance information, credible information and environmental efficiency signs and the ratings by Gentler, Lydenberg, Domini, Inc. (KLD) were used.

KLD revealed companies' environmental activities as hazardous waste, regulating issues, ozone burning substances and emissions among others. CGM analysed were directors' position, education, sex and age. 78 sample firms extracted from Fortune 1000 firms in 2006 and 2007 was utilised. The research discovered that a greater percentage of outside directors on board is positively related to ECSR reports. Sex also played a significant role on KLD ratings. Moreover, age and qualification determined ECSR.

3.5 Corporate Governance Mechanisms and CSED

Corporate governance mechanisms in this study, are composed of board independence, board size, board meetings, directors' qualifications, board committees, audit committee independence and non-executive directors' ownership.

While the control variables are firm size, industry and profitability. This study carefully reviewed literature on each of the CGM and the CSED.

3.5.1 Board Independence

Literature on board independence is in abundance, however, pending the situation on the floor in addition to the variables used for the analysis. Board independence is one of the CGM effective tools of disclosure (Lu & Abeysekera, 2014). The disclosure could be in the form of voluntary disclosure, financial disclosure, non-financial disclosure, intellectual capital disclosure, social disclosure and environmental disclosure among others. Therefore, this study reviews some literature in respect of board independence and social and environmental disclosure.

For example, Arcay and Vazquez (2005) used cross sectional analysis in 1999 to examine the relationship between board independence and voluntary disclosure. The study took place in Spain with initial sample of 117 out of which 91 firms quoted on the Spanish Stock Exchange is used. Using one way ANOVA and Kruskall Wallis test as non-parametric analysis, the study found board independence to be positively and statistically significant at 5% in explaining changes in VD. Therefore, the study concluded that, the more the increase in non-executive directors on board, the more the increase in VD, other things remain constant.

In a related development, Post, Rahman and Rubow (2011), examined the association between board independence, gender and social disclosure (environmental inclusive) using data from 1000 firms shortlisted by Kinder Lyndenberg Domini (henceforth called KLD). Seventy eight samples are utilised in the study. The scoring system is used to measure the social and environmental disclosure with checklist composes of three categories and a rating ranging from 0 to 3. After taking into account of some control variables, the study found that, board independence, enhanced social and environmental disclosure among the KLD firms. This study is also in line with Cheng, Courtenay and Krishnamurti (2006), where they found board independence to be positively and significantly related to voluntary disclosure. Although they differ in terms of sample, measurement, techniques of data analysis, time, place and the model constructed.

Huafang and Jianguo (2007) conducted a study on board independence and firm size using sample of 526 firms out of 559 firms with eleven different sectors in China. In the process of the analysis to determine the relationship, OLS is employed on the cross sectional data of the year 2002. Corporate VD is measured using checklists and content analysis was also employed. The findings indicated that, board independence is positive and significant in explaining changes on corporate VD. Thus, the study found that one increase in non-executive directors on board will bring about a corresponding increase on corporate VD. Huafang and Jiango also found that an increase of firm size will increase corporate VD. Since their relationship is also positive and is statistically significant at 1%. In addition, the study found that, those

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firms that are larger tend to disclose more information on their financial report than the non-larger firms. Other variables used in the study are, ownership structure and CEO duality.

In the African countries, specifically Kenya, Abeysekera (2010) examined board independence and capital disclosure using dependency theory to back the study. The study argued, based on dependency theory that firms with larger board can mitigate individual directors' deficiencies in business skills through collective decision. The study covered 2002 and 2003 years individually with a sample of 26 firms among the population of 52 firms. The disclosure is categorised into internal, external and human disclosure. The disclosure is measured using 0 and 1 for non-disclosed and disclosed respectively. The study used logistics regression to estimate the relationship and found that, board independence is associated positively and significant with all the categories of the disclosure. Abeysekera also found that larger firms disclosed more than their counterpart. Other variables used in this study are the size of the firm, type of industry and board size. Despite the outcome of the study, it suffered some setback as the sample is inadequate, measurement of disclosure is weak and audit members are not included in the analysis.

On the issue of CSR, in Bangladesh, Michelon and Parbonetti (2012) examined board independence in relation to CSR in aspect of legitimacy theory. Content analysis is employed to measure the CSR using some checklist constructed by the author to suit the content of the study. The study utilised cross sectional data for the

analysis with OLS regression as a tool of analysis on the association. Among the variables used in the study in addition to board independence is audit committee. The study found an evidence of positive relationship between board independence and CSR in Bangladesh.

Cormier, Ledoux and Magnan (2011) examined both social and environmental disclosure in Canada. The study is conducted on the sample of 137 quoted firms in Toronto Stock Exchange for the year 2004 and 2005 independently. Stakeholder theory is applied in order to reduce information asymmetry. Board independence, firm size and board size were among the variables examined in relation to social and environmental disclosure. The disclosure is measured using coding as used by Al-Tuwaijri, Christensen and Hughes (2004) and OLS is utilised as the techniques of analysis. The result showed that, there is a positive and significant relationship between board independence and social and environmental disclosure in Canada. Both the years under consideration turned to be in agreement with existing findings. The study suffered some deficiencies as the study used cross sectional data instead of panel data since the data for 2004 and 2005 were available. In addition, the use of OLS in the study is another weakness of this research.

However, in Kenya Barako and Brown (2008) found a contradictory result in respect of CSR and board independence. The relationship between board independence and CSR found is negative and is statistically significant. Therefore, there was sufficient evidence to conclude that, the more the increase in non-executive directors on board

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the less the disclosure on CSR and by extension, the less the disclosure on CED, The study measured CSR on a binary scale of 0 and1 for non-disclosure and disclosure of CSR among the sample of 40 banks which served as the population of the banks in Kenya. Unweighted index is used as it gives equal weight for all the items disclosed and that eliminate the issue of biasness the author insist. Unlike Cormier, Ledoux and Magnan (2011), this study suffered the sampling inadequacy and industry restrictions. Even though the study contributed in African literature on CSR, there is also need for more studies in Africa, taking the heterogeneity nature of the countries found in Africa, their cultural and their economic background.

In the same vein, Barako, Hancock and Izan (2006) conducted a study in Kenya on board independence and voluntary disclosure. The disclosure is measured using a checklist of 47 extracted from 106 available checklists. The reduction of the checklist is based on the suitability of the checklist in Kenya. The time period considered is from 1992 to 2001 inclusive. Therefore, panel data is said to be used in the research. Pooled PLS regression techniques are employed with standard error correction. Agency theory is utilised and the study found a negative and significant relationship between board independence and VD. Among the variables studied by this research is audit committee, which was found to be positive in relation to VD.

Contrary to the previous studies above, Brammer and Pavelin (2008) examined the board independence and the quality of CED. The variable CED quality is measured using a checklist from PIRC 2000 and is categorised into five. With 450 samples of

large firms out of 700 firms in the United Kingdom, the study found that there was no relationship between board independence and CED quality in the first category. However, in the remaining four categories, the relationship proves to be negative. This is done after taking account of one period lag for dynamic model analysis. Other variables include in the model are firm size and profitability which are found to be all positively related with the CED quality in all the five categories. Finally, it was clear that firm that is large disclosed more information on CED than other firms of the smaller structure in terms size.

3.5.2 Board Size

Several studies are conducted on board size and disclosure, be it voluntary, capital, social and environmental disclosure, especially in advance countries (see Cormier, Ledoux, & Magnan, 2011; Halme & Huse, 1997; Laksmana, 2008; Michelon & Parbonetti, 2012) with very few and limited studies in Africa (Abeysekera, 2010). The reason for the inadequacy of studies in the area of social and environmental disclosure in Africa could be attributed to lack data availability (Amaeshi et al., 2006a), weak government policy on corporate social or/and environmental issues (Okeagu et al., 2006), low public awareness on environmental concern (Tsamenyi, Enninful-Adu, & Onumah, 2007) and constrain on proper documentations of social and/or environmental disclosure (Hassan, 2012). Therefore, there need for more studies on CSED in Africa especially in Nigeria. To overcome these problems, so

many literatures are reviewed in respect of board size and disclosure in general with social and environmental disclosure in particular.

The literature is reviewed as follows, Abeysekera (2010), examined board size and disclosure in Kenya. The disclosure is categorized into internal, external and human capital disclosure. With a population of 52 firms listed on the Nairobi Stock Exchange, 26 firms were used as sample in the study for the period of 2002 and 2003. The disclosure is measured using categorical measurement, hence, a logistic regression is applied to estimate the relationship between the dependent variable and the independent variable. It was found that, board size is positively and significantly related to the capital disclosure among all the categories in the study. Therefore, the more the increase in board size the more the voluntary capital disclosure by Kenyan firms. The study also examined firm size, board independence and industry and they are all positively related to the disclosure. However, the study suffered some deficiencies of weak measurement, inadequate samples and audit members were not included in the model.

Laksmana, (2008) conducted a research on board size and voluntary disclosure using 500 sample firms on S&P with six different categories of industries. Voluntary disclosure is measured with 23 checklists constructed by the author in line with the study's objectives. Two independent years 1993 and 2002 were considered for the study with a sample of 218 and 232 respectively. In the first analysis, OLS is used to estimate the relationship. It was further estimated with two stage least squares

(henceforth called TSLS) to overcome endogeneity problems. After the estimation, board size is found to be in a positive relationship with VD and statistically significant at 5%. Therefore, evidence of increase in board size will increase VD in the study, in the same findings, board meeting and board independence both significantly and positively associated with VD.

In addition, Halme & Huse (1997) tested the hypothesis drawn from board size and environmental reporting of four Scandinavian countries compose of Norway, Sweden, Spain and Finland. A sample drawn from those countries were 40, 40, 20 and 40 respectively. Therefore, total sample used from all the countries is 140. Institutional theory is applied in the study. Using logistics regression and content analysis as measurement of environmental reporting, the result of the hypothesis showed a positive relationship between board size and environmental reporting and is statistically significant at 5%. The study also examines the effect of CGM on environmental reporting of those Scandinavian countries individually and collectively. While other variables in the CGM affect environmental reporting among the countries, some found not to affect the reporting among the countries.

Huang and Kung (2010) investigated the nature of the relationship between board size and CED firms using a panel data drawn from an initial sample of 1680 firms. With the final sample of 759, thus, 951 were not used due to insufficient data among other reasons from 2003 to 2005 financial years, it was indicated that, board size is positively associated with CED. The study is in agreement with Cheng, Courtenay

and Krishnamurti (2006), where they also found board size to be positively and significantly related to voluntary disclosure in Singapore. This could be ascertained even though they differ in terms of sample, measurement, techniques of data analysis, time, place and the model of their studies.

Cormier, Ledoux and Magnan (2011) conducted a study on both social and environmental disclosure using Canadian firms. The study utilised the sample of 137 quoted firms in Toronto Stock Exchange for the independent years of 2004 and 2005. Stakeholder theory is applied in order to reduce information asymmetry. Board size, firm size and board independence were among the variables examined in relation to CSED. The disclosure is measure using coding as used by Al-Tuwaijri, Christensen and Hughes (2004). The study used OLS as techniques of analysis. The result showed that, there is a positive and significant relationship between board size and CSED in Canada. Both the years under consideration turned to be in agreement with existing findings. The study suffered some deficiencies as the study used cross sectional data instead of panel data since the data for 2004 and 2005 were available. In addition, the use of OLS in the study is another weakness of this research since not suitable for categorical data.

However, some researchers found contradicting results between board size and disclosure. For example, Arcay and Vazquez (2005) examined board size and voluntary disclosure in Spain. Board independence, firm size and audit committee were among the independent variables in the model. Using a sample of 91 from an

initial sample of 119 Spanish firms in 1999 financial year, the study employed one way Analysis of Variance (otherwise called ANOVA) and Kruskall Wallis test in addition to structural equation modelling (also known as SEM) for the measuring the relationship primarily, it was disclosed that board size is negatively associated with VD. Meanwhile, all other variables proved to be positively related to VD. The study witnesses some deficiencies as cross sectional data is used which could not account for time constrain.

Moreover, Cormier, Ledoux, Magnan and Aerts (2010) investigated board size and governance disclosure which include board independence, board meetings, firm size and audit committee. The research took place in Canada with ten categories of industries and initial sample of 155 firms of which 131 firms were drawn as final sample. Governance disclosure is measured using 17 checklists constructed by United Nation 2005. Panel regression analysis is applied and Huasman test is conducted on the panel data ranging from 2004 to 2005. Board size is found to be negatively related to governance disclosure and is significant at 5%. Therefore, the study concluded that there was sufficient evidence that increases in both board size and audit committee significantly decrease governance disclosure. With the exception of board meetings and audit committee, the remaining variables are said to be positively related with the disclosure.

Despite some studies established positive relationship between board size and disclosure in general (including both social and environmental) and some negative

relationship was established, however, Michelon and Parbonetti (2012) examined board size in relation to CSR in Bangladesh. A legitimacy theory is used and content analysis is employed to measure the CSR using a checklist the study utilised cross sectional data for the analysis with OLS regression as a tool of analysis on the association. Among the variables used in the study in addition to board size is board independence and audit committee. The study could not establish any relationship between board size and CSR. In other words, no relationship exists between board size and CSR.

3.5.3 Board Meetings

Research on board meetings is limited compared to other variables like board size and board independence. However, pending the situation on the floor in addition to the variables used for the analysis, the board meeting is one of the mechanisms of governance on disclosure (Cormier et al., 2010). This study considered disclosure in general in the form of voluntary disclosure, financial disclosure, non-financial disclosure, intellectual capital disclosure and specifically social and environmental disclosure for this research. Therefore, this study reviews some literature in respect of board meetings and disclosure, be it social and/or environmental.

Laksmana (2008) investigated the association between board meetings and voluntary disclosure (social and environmental inclusive) with sample drawn from S&P 500 firms within six different categories of industries. Voluntary disclosure is measured

with 23 checklists constructed by the author in line with the study's objectives. Two independent years 1993 and 2002 were considered for the study with samples of 218 and 232 respectively. In the first analysis, OLS is used to estimate the relationship. It was further estimated with TSLS to overcome the endogeneity problems. After the estimation, board meetings is found to be of positive in relation to VD and statistically significant at 5%. Therefore, the study concluded that there was sufficient evidence that board meeting frequency will increase VD in the study, in the same findings, board size and board independence both significantly and positively associated with VD.

Moreover, Chou, Chung and Yin (2013) conducted a study in 2006 and 2007 in Taiwan. Variables investigated include board meetings, board size and board independence on firm performance disclosure measured as return on assets (ROA). The sample of the study was 647 and 661 for the year 2006 and 2007 respectively. It was reported that board meetings frequently increase the value of a firm disclosure and is statistically significant at 5%. That means the more the meetings of the board, the more the performance of a firm as stipulated with empirical evidence found in this study.

In Australia, Nelson, Gallery and Percy (2010) examined board committee among other variables in relation to executive stock option disclosure among the sample of 115 drawn from 300 firms. The research used 2001 to 2004. Coding process ranging from 0 to 3 is used to measure the stock option disclosure with un-weighted

disclosure index. A panel regression is applied to ascertain the relationship thus, board meetings proved to be positively related to disclosure. Even though, audit committee independence is also positive, board independence is found to be negatively associated with the disclosure.

However, Cormier, Ledoux, Magnan and Aerts (2010) examined board meetings and governance disclosure which include board independence, firm size and audit committee. The study is conducted in Canada with ten categories of industries and an initial sample of 155 firms of which 131 firms were drawn as final sample. Governance disclosure is measured using 17 checklists constructed by United Nation 2005. Panel regression analysis is applied and Huasman test is carried out on the panel data ranging from 2004 to 2005. It was found that there was no relationship between board meetings and governance disclosure. Unlike other variables in the study, audit committee significantly decrease governance disclosure. With the exception of board meetings and audit committee, the remaining variables are said to be positively related with the disclosure.

Furthermore, Liao, Luo and Tang (2015) conducted a study on the relationship among greenhouse gas emission (henceforth called GHG) disclosure, as listed in Carbon Disclosure Projects (CDP), in United Kingdom and board meetings among other variables that includes environmental committee, board independence, board size, firms size and profitability. The disclosure of GHG is measured as dummy variables indicated as 1 for firms disclosed on CDP and 0 otherwise. The study used

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a sample of 329 largest firms in the year 2011. A stakeholder theory is applied and probit regression coupled with logit regression was also utilised on the cross sectional data. In addition, the sectors were divided into carbon sensitive firms and non-carbon sensitive firms. Going by the probit result, there was no enough evidence to suggest that board meetings frequently determined GHG disclosure. In other words, no relationship exists between board meetings and the GHG disclosure. While board independence, environmental committee, firm's size and board size were positively associated with GHG disclosure, profitability measured as ROA is found to be negatively related to such disclosure. But the logit regression result disagrees with the probit regression result only on board independence that prove to be insignificant.

3.5.4 Directors' Qualifications

Qualification, also known as education, is an ingredient in decision making which lead to performance in any organizations (Welford, 2007). Hence, there are studies that are conducted on qualifications or education and disclosure, be it social and environmental disclosure, especially in advance countries (see Bushee & Noe, 2000; Haniffa & Cooke, 2000; Wallace & Cooke, 1990) with very few and limited studies in Africa (Barako et al., 2006). As indicated earlier, there are few studies on CSED and disclosure generally in Africa. The reason could be attributed and not limited to, lack of data availability, weak policy, inadequate publicity and constrain on proper documentations of social and/or environmental disclosure (Amaeshi et al., 2006a;

Okeagu et al., 2006; Tsamenyi et al., 2007). Therefore, there need for more studies on education and CSED in Africa especially in Nigeria. To overcome these problems, so many literatures are reviewed in respect of qualifications or education and disclosure in general with social and environmental disclosure in particular.

For example, Haniffa and Cooke (2002) examined qualification of directors and voluntary disclosure (social & environmental inclusive). Qualification is seen in the study as those directors with an accounting background and those with finance background. A survey of 167 in 1995 was conducted to establish the relationship in Malaysia. Regression analysis is applied and the result established that, accounting education is positively and significantly associated with disclosure. Therefore, the more the directors with accounting background the more the disclosure. However, the result also signified that finance education is negatively related to disclosure. Other variables examined in this study are, board independence and industry, which are both negatively associated with disclosure while firm size is positively related to voluntary disclosure. The study faced weakness of data, technique of analysis and low number of observations in comparison to the population of the study.

3.5.5 Number of Committees on Board

The delegation of duty is mostly from the board of directors whose, in line with the Nigerian SEC rules, delegates its duties to other committees under its jurisdiction. For example, the board of directors assigns few of its obligations to subcommittees,

in which agency theory persists that it lead to management control, hence, shareholder protection (Aebi, Sabato, & Schmid, 2012; Engel, Hayes, & Wang, 2010; Hoitash, Hoitash, & Bedard, 2009). Based on the reason mentioned above, the sub-committees of the boards also can be factor determinants of board effectiveness since their roles are now diversified for efficiency, accountability and transparency on any duty performed. One of the reason for their effectiveness is as a result of the size of the committees as indicated in (Caskey, Nagar, & Petacchi, 2010; Cohen, Hoitash, Krishnamoorthy, & Wright, 2014; Engel et al., 2010). Therefore, presence of committees is an issue that attracts scholars on general disclosure, including CSED and research on presence of committees are limited compared to other variables like board size and board independence. However, pending the situation on the floor in addition to the variables used for the analysis, presence of committees is one of the mechanisms of governance on disclosure (Rodrigue, Magnan, & Cho, 2013). This study considered disclosure in general in the form of voluntary disclosure, financial disclosure, non-financial disclosure, intellectual capital disclosure and specifically social and environmental disclosure for this research. Therefore, this study considered the presence of committees be it risk, social and/or environmental and remuneration's among others and disclosure.

For example, Peters and Romi (2014) conducted a study on committees and disclosure of carbon emission using Carbon Disclosure Projects (CDP) list in accordance with the greenhouse gas emission (GHG). A questioner is distributed to 1620 firms in line with the GHG requirements. Out of the 1620 firms only 1238meet

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the requirements of the study. Emission disclosure is measured 1 for disclosure and 0 for non-disclosure of emission. While, the committee is measured as ―1‖ for the presence of the committee and ―0‖ for the absence of the committee, therefore, probit regression is used to estimate the relationship and the result showed that the committee is positively and significantly associated with emission disclosure. Firm size measured as total assets is also found to be positively related to the said disclosure. Despite the involvement of so many criteria however, the suffered some limitations of weak identification of the committee, endogeneity problem.

In United States (US), Cowen, Ferari & Parker (1987) embarked on social responsibility disclosure research. The CSD is categorised into seven, compose of energy, environmental, safety of products, community among others. Independent variables include the presence of at least a social responsibility committee, the firm‗s size, industry and profitability. The data used was that of 1978 with 134 samples drawn from fortune 500 lists of large firms in the US. Ordinary least squares is utilised and overall result proved that the presence of social committee is positively related to only one category of the disclosure i.e. human resources. While others were found not to have any relationship with the committee presence, the firm‗s size and industry are positively associated with all the categories of the disclosure.

However, Rodrigue, Magnan and Cho (2013) examined the existence of committees especially environmental committee and pollution performance disclosure of firms listed in US stock exchange for the period of 2003 & 2008. Data for the performance

of both environmental and pollution were extracted from those financial reporting firms listed by KLD ratings. The two techniques of analysis were conducted as logistic regression and pooled OLS. The result of the cross sectional data revealed that, there is no association between the presence of committee (environmental) and either of the environmental and/or pollution performance disclosure. But, the firm's size is negative, but not significant in relation to both pollution and environmental disclosure.

Despite some studies established no relationship between the presence of committees and disclosure in general (including both social and environmental) and some negative relationship was established, however, Michelon and Parbonetti (2012) examined the presence of committees in relation to CSR and sustainability reporting in nine countries compose of eight European countries and US. A stakeholder and legitimacy theories were used and content analysis is employed to measure the CSR and sustainability using a checklist the study utilised cross sectional data of 114 samples for the analysis with OLS regression as a tool of analysis on the association. Among the variables used in the study in addition to board size is board independence. The study could not establish any relationship between the presence of committee and Sustainability reporting including CSR. In other words, no relationship exists between the social committee presence and CSR.

Hassan and Ibrahim (2012) examined environmental management system in the form of committee and environmental disclosure among firms listed by FSTE 100 in

United Kingdom. All the firms were used for the study. Content analysis is employed to measure the environmental disclosure with seven sectors of industries using stakeholder theory. Descriptive statistics are used for the cross sectional data and the result yield signified that environmental management system i.e. the committee improves environmental disclosure. Which they have a positive relationship. The study could not take account of the quality of the disclosure and it used a cross sectional data, therefore, time factor was not included. In addition, only limited variables were included.

3.5.6 Audit Committee Independence

The involvement of audit committee promotes not only the standard but the quality of such disclosure. Hence, there are studies that are conducted on audit committees and disclosure, be it social and environmental disclosure, especially in advance countries (see Cormier, Ledoux, & Magnan, 2011; Ho & Wong, 2001; Nelson, Gallery, & Percy, 2010) with very few and limited studies in Africa (Barako, Hancock, & Izan, 2006). As indicated earlier, there are few studies on audit committee and disclosure generally in Africa. The reason as discussed earlier could be attributed and not limited to, lack of data availability, weak policy, inadequate publicity and constrain on proper documentations of social and/or environmental disclosure (Okeagu, Okeagu, Adegoke, & Onuoha, 2006; Tsamenyi, Enninful-Adu, & Onumah, 2007). Therefore, there need for more studies on audit committee and CSED in Africa especially in Nigeria. To overcome these problems, so many

literatures are reviewed in respect of an audit committee and disclosure in general with social and environmental disclosure in particular.

Arcay and Vazquez (2005) examined audit committee and voluntary disclosure in Spain. Board independence, firm size and board size were among the independent variables used by the model. Using a sample of 91 from an initial sample of 119 Spanish firms in 1999 and 2001 financial year, the study employed one way Analysis of Variance (otherwise called ANOVA) and Kruskall Wallis test in addition to structural equation modelling (also known as the SEC) for the measuring the relationship. Pooled OLS was also employed and it was disclosed that the audit committee is positively associated with VD. Meanwhile, board size is negatively related to VD with all other variables proved to be positively related to VD. The study, witness some deficiencies as cross sectional data is used and time is not considered.

Furthermore, Cormier, Ledoux and Magnan (2011) investigated audit committee in relation to both social and environmental disclosure in Canada. The study used samples of 137 quoted firms in Toronto Stock Exchange for the individual year 2004 and 2005. Stakeholder theory is applied in order to reduce information asymmetry. In addition, board independence, firm size and board size were among the variables examined in relation to social and environmental disclosure. The disclosure is measured using coding as used by Al-Tuwaijri, Christensen and Hughes (2004) and OLS is utilised as the techniques of analysis. The result showed that, there is positive

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and significant relationship between audit committee and social and environmental disclosure in Canada. All the result in the years under consideration turned to be in agreement with existing findings. The study suffered some deficiencies as the study used cross sectional data instead of panel data since the data for 2004 and 2005 were available. In addition, the use of OLS in the study is another weakness of this research.

The study is also conducted in Africa, for example Barako, Hancock and Izan (2006) empirically investigated audit committee and voluntary disclosure in Kenya for the year 1992 to 2001 inclusive. In the process, larger firms were compared with smaller firms in the Nairobi Stock Exchange. To determine voluntary disclosure, a checklist was developed and used with 47 items. Therefore, a scoring system was employed with coding ranging from zero to four. With an initial sample of 54 firms, at least 38 firms are used as the final sample representing 70% of the initial sample. A panel regression is utilised and the result showed the existence of a positive and significant relationship at 5% between the audit committee and voluntary disclosure. However, board independence proves to be negatively and significantly associated with the disclosure as opposed to profitability that has no any relationship with the disclosure. Moreover, large firms tend to disclose more information voluntarily than their counterpart.

Nelson et al. (2010) also studied the relationship between audit committee independence and the disclosure of executive stock option in Australia from 2001 to

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2004 inclusive. Board meetings and board independence were also examined along with the audit committee independence. The disclosure is coded using an un-weighted disclosure index of 0 to 3. The sample used is 115 firms out of 300 as initial sample. With a panel regression analysis, audit committee independence is positively associated with the executive stock option disclosure. Board meetings proved to be positively and significantly related with the disclosure while board independence is found to be negatively and significantly associated with the disclosure of the executive stock option.

However, Cormier, Ledoux, Magnan and Aerts (2010) investigated the relationship between audit committee and governance disclosure composed of board independence, firm size and board meetings in Canada. The firms are composed of ten categories of industries with an initial sample of 155 firms of which 131 firms were drawn as final sample. Governance disclosure is measured using 17 checklists constructed by United Nation 2005. Panel regression analysis is applied and Huasman test is carried out on the panel data ranging from 2004 to 2005. Empirically, a negative relationship exists between the audit committee and governance disclosure. The remaining variables with the exception of board meetings are said to be positively related with the disclosure.

3.5.7 Non-executive Director's Ownership

Board ownership could be seen as the either an amount or the number of shares owned by the board of directors (Ahmed & Duellman, 2007). The more the board members own stock, the more have an interest in the activities of the company, thus, disclosure changes based on that interest (Brammer & Pavelin, 2008). Board ownership could be inside directors or outside directors (Mak & Li, 2001). Depending on the circumstances, outside directors who have shares tend to play a significant role on the disclosure, in other words, they will protect the image of the company in the eyes of the stakeholders via the push of transparency in the disclosure (Akhtaruddin & Haron, 2010). Therefore, literature on board ownership is in abundance with limited research in relation to CSED, however, pending the situation on the floor in addition to the variables used for the analysis. Board ownership is also part of CGM and is composed of executive director's ownership and non-executive director's ownership (Lu & Abeysekera, 2014). Therefore, this study reviews literature in respect of non-executive director's ownership and social and/or environmental disclosure.

For example, Akhtaruddin, Hossain, Hossain and Yao (2009) examined the association between outside board ownership which include non-executive director's ownership and voluntary disclosure in Malaysia listed firms. Voluntary disclosure is measured using a modified checklist from Chau and Gray (2002). Corporate governance variables used by the study include, board independence, audit

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committee and board size. While control variables were profitability and firm's size. A sample of 105 firms is drawn from 562 listed firms as categorised into six industries. An OLS and sensitivity analysis is employed on the cross sectional data and the result shows that outside board ownership is positively and significantly associated with the VD at 1%. All other variables in the study were positively and significant in explaining changes in the disclosure with the exception of audit committee that has no relationship with the disclosure,

However, Akhtaruddin and Haron (2010) conducted a study in Malaysia on the association between board ownership and financial disclosure also known as voluntary disclosure in 2003. Board ownership considered in the study as independent non-executive directors' ownership, is introduced on the said relationship. Other variables examined were audit committee and firms size as control variable. The sample included in the study was 124 and agency theory is utilised with hierarchical regression techniques employed in addition to the sensitivity analysis on the cross sectional data. The result showed that, board ownership is negative in relation to the disclosure and is significant. The empirical result supports the hypothesis so formulated, However, other variables were found to be positively associated with the financial disclosure.

On corporate social responsibility (also known as CSR) disclosure, Said, Zainuddin and Haron (2009) examined the association between managerial ownership also considered as one aspect of board ownership in their study, and CSR disclosure in

Malaysian firms obtain from web sites and financial reporting. The disclosure of CSR is measured using content analysis. In addition, board independence, audit committee and board size were among the variables examined with profitability and firm size as control variables in the model. A sample of 150 firms compose of seven sectors drawn from an initial sample of 250 firms is used for the study. To arrive at the estimation, hierarchical regression is employed on the cross sectional data of 2006 and the result showed the existence of a positive relationship, but not significant between managerial ownership and CSR disclosure, However, other variables were found to be positively associated with the CSR and audit committee is the most significant variables that explained the CSR disclosure.

On the contrary, Donnelly and Mulcahy (2008) empirically investigated the relationship between managerial ownership, also seen as part of board ownership in this study, and voluntary disclosure in Ireland for the year 2002. Ownership is measured using scoring system and board independence, firm's size and board size were included in the study. A sample of 51 firms out of 62 firms were used using OLS regression on the cross sectional analysis. The result supported the fact that, while managerial ownership happen to have no relationship at all with disclosure, board independence, firm's size and board size are positively and statically significant at 5% in explaining changes in voluntary disclosure among Irish firms. The study suffered some set back as multicollinearity exists among the independent variables which could affect the result direct or otherwise.

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Ahmed and Duellman (2007) used sample of 306 largest firms listed among S&P 500 in United States to examine the relationship between outside directors ownership or non-executive director's ownership and accounting conservatism measured as market value base. Board size was also included in the model with twelve categories of industries in the year 1999 to 2001 inclusive. The aim was to measure the strength of corporate governance in respect of conservatism and accruals. OLS regression coupled with fixed effects regression was employed on the pooled data analysis. A strong evidence of a positive relationship exists between non-executive director's ownership and the conservatism, therefore, suggesting strong indication that non-executive director's ownership is one of the strongest explanatory variable of corporate governance. Meanwhile, the board is positively associated with the conservatism, however, is not significant.

3.5.8 Firm Size

Literature on firm size are in abundance (see Abeysekera, 2010; Cheng, Courtney & Courtenay, 2006; Haniffa & Cooke, 2002; Huang & Kung, 2010; Lim, Matolcsy, & Chow, 2007), however, pending the situation on floor in addition to the variables used for the analysis. Firm size is one of the characteristics of company that portray the image of a company which could have effect on disclosure (Arcay & Vazquez, 2005). This disclosure could be in the form of voluntary disclosure, financial disclosure, non-financial disclosure, intellectual capital disclosure, social disclosure

and environmental disclosure among others. Therefore, this study reviews some literature in respect of firm size and social and environmental disclosure.

For example, Eng and Mak (2003) in 1995, conducted an empirical study on the relationship between firm size and voluntary disclosure with four models. Sample used was 158 firms composed of nine industries. Disclosure is measured using a checklist of 84 items on the cross sectional data. An OLS regression was utilized on the estimation. Other variable in the study is board independence measured as proportion of outside directors on board. In model one and model three, firm size is positively related with disclosure and significant at 1%. Model two and model four also, firm size proved to be positively associated with the disclosure at 5%. But board independence is found to be negatively and significantly associated with disclosure at 5%, 1%, 10% and 5% for model one, two, three and four respectively. Despite the various industries involved, there is still inadequate of sample in the study. Another issue is time is not considered in addition to the weak techniques used (OLS).

Moreover, Haniffa and Cooke (2002) empirically investigated firm size and voluntary disclosure (social & environmental inclusive). Firm's size is measured in the study total assets at the end of the financial year. Survey of 167 in 1995 was conducted to establish the relationship among the variables in Malaysia. Regression analysis is applied and the result established that, firm size is positively and significantly associated with disclosure. Therefore, the more the increase in the size

of firms the more the disclosure. However, while accounting education is positively related with disclosure, the result also signified that finance education is negatively related with disclosure. Other variables examined in this study are, board independence and industry which are both negatively associated with the voluntary disclosure. The study faced weakness of data, technique of analysis and low number of observations in comparison to the population of the study.

On environmental disclosure however, Huang and Kung (2010) examined the nature of the relationship between firm size and CED firms using a panel data drawn from an initial sample of 1680 firms. With the final sample of 759, thus, 951 were not used due to insufficient data among other reasons from 2003 to 2005 financial years, it was indicated that, firm size is positively associated with CED. The study is in agreement with Cheng, Courtenay and Krishnamurti (2006), where they also found firm size to be positively and significantly related to voluntary disclosure in Singapore. This could be ascertained even though they differ in terms of sample, measurement, techniques of data analysis, time, place and the model of their studies.

Lim, Matolcsy and Chow (2007) conducted a study on the relationship between firm size and voluntary disclosure (CSED inclusive) in Australia. Other variables included in the study were board independence, board size and industry among others. Initial sample of the study is 324 with final sample of 181 firms. Voluntary disclosure is seen as forward looking and strategic disclosure and is measured with checklist of 67 items. A two stage least square is applied on the cross sectional data.

Findings of the study showed that, firm size is positive and statistically significant on the relationship with both forward looking and strategic voluntary disclosure. Both board size and board independence happen to be positively and significantly associated with the disclosure. However, industry is negative and significantly related with the disclosure of both forward looking and strategic. The study is conducted in 2001 with an agency theory to support the hypothesis. However, is suffered some set back as it did not take account of time in addition to weak observations.

Furthermore, Cormier, Ledoux and Magnan (2011) conducted a study on both social and environmental disclosure using Canadian firms. The study utilised the sample of 137 quoted firms in Toronto Stock Exchange for the independent years of 2004 and 2005. Stakeholder theory is applied in order to reduce information asymmetry. Firm size, board size and board independence were among the variables examined in relation to CSED. The disclosure is measure using coding as used by Al-Tuwaijri, Christensen and Hughes (2004). The study used OLS as techniques of analysis. The result showed that, there is positive and significant relationship between firm size and CSED in Canada. Both the years under consideration turned to be in agreement with existing findings. The study suffered some deficiencies as the study used cross sectional data instead of panel data since the data for 2004 and 2005 were available. In addition, the use of OLS in the study is another weakness of this research since not suitable for categorical data.

Cheng, Courtenay and Krishnamurti (2006), examined firm size and voluntary disclosure in Singapore. It used sample of 104 firms out of 115 in the year 2000. OLS regression is utilised on two different models formed by the researcher. The empirical study on the cross sectional data found firm size, measured as return on assets, to be positively and significantly related to voluntary disclosure in Singapore. Other test conducted on the study is Wilcoxon Paired test of difference. This could be ascertained even though they differ in terms of sample, measurement, techniques of data analysis, time, place and the model of their studies.

Arcay and Vazquez (2005) also used cross sectional studies in 1999 to examine the relationship between firm size and voluntary disclosure. The study is conducted in Spain with initial sample of 117 out of which 91 firms quoted on Spanish Stock Exchange. Using one way ANOVA and Kruskall Wallis test as non-parametric analysis, the study found firm size to be positively and statistically significant in explaining changes in VD. Therefore, the study concluded that, the more the increase on firm size, the more the increase in VD, other things remain constant.

3.5.9 Industry

Type of industry plays a significant role on environmental disclosure. So many studies categorized industries into, sensitive or environmentally friendly industries and non-sensitive or non-environmentally friendly industries and is based on their environmental harm, wastages and pollution (Brammer & Pavelin, 2008). Thus,

there are limited studies that are conducted on industry type and social and environmental disclosure in Africa (Barako & Brown, 2008). This could be attributed to lack of data availability, weak policy, inadequate publicity and constrain on proper documentations of social and/or environmental disclosure (Tsamenyi, Enninful-Adu, & Onumah, 2007). Therefore, there is need for more studies on type of industry and CSED in Nigeria. Literature is reviewed in respect of industry and CSED to overcome the existing problem.

For instance, in Africa, Abeysekera (2010) examined industry and capital disclosure in Kenya with dependency theory as theoretical framework of the research. The years covered were 2002 and 2003 individually with sample of 26 firms among the population of 52 firms. The disclosure is categorised into internal, external and human disclosure. The disclosure is measured using 0 and 1 for non-disclosed and disclosed respectively. The study used logistics regression to estimate the relationship and found industry to be associated positively and significant with all the categories of the disclosure. Abeysekera also found that larger firms disclosed more than their counterpart. Other variables used in this study are size of the firm, board independence and board size. Despite the outcome of the study, it suffered some setback as the sample is inadequate, measurement of disclosure is weak and audit members are not included in the analysis.

However, Haniffa and Cooke (2002) empirically investigated industry and voluntary disclosure (social & environmental inclusive) in Malaysia. Other independent

variables used in the study include qualification, seen in the study as those directors with accounting background and those with finance background and board independence. Survey of 167 in 1995 was conducted to establish the relationship. Regression analysis is applied and the result established that, industry type is negatively and significantly associated with disclosure. In the case of qualifications, therefore, it was found that the more the directors with accounting background the more the disclosure. However, the result also signified that finance education is negatively related with disclosure while board independence is negatively associated with disclosure and firm size is positively related to voluntary disclosure. The study faced weakness of data, technique of analysis and low number of observations in comparison to the population of the study among others.

In the same vein, Lim, Matolcsy and Chow (2007) conducted a study on the relationship between industry type and voluntary disclosure (CSED inclusive) in Australia. Other variables included in the study were firm size, board independence, board size and industry among others. Initial sample of the study is 324 with final sample of 181 firms. Voluntary disclosure is seen as forward looking and strategic disclosure and is measured with checklist of 67 items. A two stage least square is applied on the cross sectional data. Findings of the study showed that, industry is negative and statistically significant on the relationship with both forward looking and strategic voluntary disclosure. Firm size, board size and board independence happen to be positively and significantly associated with the disclosure. The study is conducted in 2001 with an agency theory to support the hypothesis. However, is

suffered some set back as it did not take account of time in addition to weak observations even though it overcome the problem of endogeneity.

3.5.10 Profitability

Profitability, also known as return on assets, is paramount in an industry for decision making which lead to performance in any firm (Brammer & Pavelin, 2008). Thus, there are limited studies that are conducted on profitability and disclosure, be it social and environmental disclosure in Africa (Barako et al., 2006) but enough especially in advance (see Brammer & Pavelin, 2008; Cheng, Courtenay, & Krishnamurti, 2006) with very few on disclosure in Africa (Barako et al., 2006). The reason for the few studies on disclosure in Africa could be attributed and not limited to lack of data availability, weak policy, inadequate publicity and constrain on proper documentations of social and/or environmental disclosure (Amaeshi et al., 2006a; Okeagu et al., 2006; Tsamenyi et al., 2007). Therefore, there is need for more studies on profitability and CSED in Nigeria and in Africa generally. To overcome these problems, so many literatures are reviewed in respect of profitability and disclosure in general including social and environmental disclosure.

For example, Brammer and Pavelin (2008), examined the association between profitability and the quality of CED in United Kingdom from 1999 to 2002 inclusive. Board independence and firm's size were also in the study. The quality of CED is measured based on checklist of PIRC 2000 in addition to the five categories so

divided. Out of the population of 700 firms, 450 considered to be largest firms were extracted and used as sample of the study. Two models were used as static and dynamic model. The dynamic model is the lagged variable by period of one year. Panel regression is applied and result obtained showed that, profitability is positively associated with the quality of CED. That means the more the profitability, the more the disclosure of environmental information the more the quality of such disclosure. While firm size seems to go in line with the profitability as has positive relationship, however, the authors could not established any relationship between board independence and one category of the CED quality and established a negative relationship with the remaining four categories. The study failed to explain PIRC but recognized it as a body that responsible for survey and shortlisting of firms in the United Kingdom.

In addition, Cheng et al. (2006) conducted a study in Singapore on the relationship between profitability considered in their study as return on assets, and voluntary disclosure in 2000. Disclosure is measured using a checklist developed by the authors. The study developed two models composed of, in addition to the profitability, board size and board independence. Test of independence and differences is conducted on the disclosure using Wilcoxon paired test of differences and OLS regression for estimating the relationship is employed. Profitability is found to be positively associated with the VD in both model one & two. While board size is positive in model one with no relationship established in model two. However, board independence also took the same shape with profitability as it has appositive

relationship with the disclosure in all the models. The study suffered weakness of techniques and data as endogeneity may exist as a result of utilization of OLS and time frame is ignored on the data collected.

However, Cormier, Ledoux and Magnan (2011) examined the association between profitability and both social and environmental disclosure in Canadian. The sample of the study is 137 firms quoted firms in Toronto Stock Exchange for the year 2004 and 2005. Stakeholder theory is applied in order to reduce information asymmetry. Firm size, board size and board independence were among the variables examined in relation to CSED. The disclosure is measure using coding as used by Al-Tuwaijri, Christensen and Hughes (2004). The study used OLS as techniques of analysis. The result showed that, there is negative and significant relationship between profitability and CSED in both the years. The study suffered some deficiencies as the study used cross sectional data instead of panel data since the data for 2004 and 2005 were available. In addition, the use of OLS in the study is another weakness of this research since not suitable for categorical data and may suffered endogeneity problem.

Furthermore, Liao, Luo and Tang (2015) conducted a study on the relationship between profitability and greenhouse gas emission (henceforth called GHG) disclosure, as listed in Carbon Disclosure Projects (CDP), in United Kingdom. Other variables includes environmental committee, board independence, board size, firms size and board meetings. The disclosure of GHG is measured as dummy variables.

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The study used a sample of 329 largest firms in the year 2011. A stakeholder theory is applied and probit coupled with logit regression was also utilised on the cross sectional data. Going by the result, profitability measured as ROA is found to be negatively related to such disclosure. While, no relationship exists between board meetings and the GHG disclosure, board independence, environmental committee, firm's size and board size were positively associated with GHG disclosure. But the logit regression result disagrees with the probit regression result only on board independence that proves to be insignificant.

Finally, in Kenya, Barako, Hancock and Izan (2006) examined profitability and voluntary disclosure for the year 1992 to 2001 inclusive. In the process, larger firms were compared with smaller firms in the Nairobi Stock Exchange. To determine voluntary disclosure, a checklist was developed and used with 47 items. Therefore, a scoring system was employed with coding ranging from zero to four. With an initial sample of 54 firms, at least 38 firms were used as final sample representing 70% of the initial sample. A panel regression is utilised and the result showed the no relationship exist between profitability and voluntary disclosure. However, board independence prove to be negatively and significantly associated with the disclosure. Moreover, large firms tend to disclose more information voluntarily than their counterpart.

3.6 Corporate Governance and the Quality of CSED

In the process of establishing the relationship between CGM and CSED quality therefore, Adams (2002) studied internal factors in relation to CSED. These include ethical issues. While factors consist of the procedure on reporting, its behaviour, effects, audit and legislation others do not. These include, firms' framework, technique, attributes of stakeholders, level and attributes of accountant. Others are attitude and opinion for disclosure increase, disclosure of bad information, future disclosure and control.

Brammer and Pavelin (2008) conducted a study in United Kingdom about the quality of CED using 450 firms in 2007. To determine the quality, environmental policy, target and environmental audit were used. Other variables examined were the size of the firm as larger or otherwise, the business nature and environment and the characteristics of the industry. The findings using logit regression showed that, those firms considered as large, disclosed quality information on CED than its counterparts. Other factors such as media exposure were found to be no relationship with the CED.

The study used interviews and is conducted in the United Kingdom and Germany in 1998. Samples of seven companies were chosen from United Kingdom and four companies in Germany. The result shows that internal factors affect the extensiveness, the quality, the quantity and completeness of CSED. The research

discovered that the procedure of disclosure related to the foundation of the country, firms dimension and the firm's culture. While accountant has no relationship with the engagement on CSED, the study suffers some setback on a limited sample.

However, Cormieir, Magnan and Van Velthoven (2005) studied the determinants of environmental disclosure and its quality. The study is conducted in Germany with 337 sample size. Using institutional theory, all variables used in the study composed of ownership, risk and age of fixed assets were found to be significant determinants of environmental disclosure quality in German firms.

Prado-Lorenzo, Gallego-Alvarez, and Garcia-Sanchez (2009) used stakeholder theory to examine shareholders power and dispersed ownership on CSR details in Spain. The study is conducted in 2009 with a total of 99 firms as a sample. The framework of the study followed the Ullmann's (1985) pattern and it used some checklist in GRI (2002) guideline to confirm the report of CSR was in compliance with guideline. The findings revealed that shareholder power as theorised by stockholder, is significant and positive in explaining changes in CSR. However, the control variables used in the study found to be of zero value to CSR. The research also recommends the use of GRI guideline for all the firms as it was a contributory factor of good reporting.

In a related development, Brammer and Pavelin (2006) analysed voluntary CED using sample of large United Kingdom firms. The population of the study was 700

of which 447 was extracted and used as sample. Variables examined in the study were, size of the firm and type of industry. Others were ownership structure and voluntary CED. Using probit regression, it was found that firm size is positively related to CED and statistically significant. While large companies in the United Kingdom tend to disclose more information on CED than those characterised as not large firms. The study also considers not only the disclosure, but the quality of such disclosure. Yet, larger firms found to have quality disclosure than its counterparts.

In their study, Boesso and Kumar (2007) analysed the drivers of both quality and quantity of voluntary disclosure using 72 samples size and ordinary least square was utilised. Variables such as stakeholder management and intangible assets were examined using content analysis in two countries, Italy and United Sates. In addition, complexity of the market is also considered in the analysis. The findings revealed that all the factors into consideration above affect both quality and quantity of the disclosure and gives more emphasis on stakeholder management. The study recommend for an increase on sample size and the study suffered from time constraint as only one year is considered.

Accordingly, O'Sullivan, Percy, and Stewart (2007) examined the company's CGM in relation to forward looking disclosure in Australia. Sample used include 300 firms in the year 2000 and year 2002 annual report separately. CGM include the independence of audit committee, the meetings of the committee, independents of

auditors and the big 6 auditor's usage. The study found all the factors to be positively

and significantly associated with the disclosure of forward looking in the year 2000.

However, in 2002, the factors have no relationship with the disclosure. The study

lacked sufficient samples and the use of logit regression has some weakness on the

measurement used.

Wegener, Elayan, Felton and Li (2013) investigated the relationship between carbon

related project and CED using firms characteristics in Canada. The period covered is

four years and the sample of the study is 319 with both local and international

investors. Theory of institution is applied while a regression technique was used. The

findings indicated that the decision of management on carbon disclosure is positively

associated with CED in local investors than foreign ones. It further revealed that

firm's characteristics played a significant role on CED. Within that period it was

found that those firms that release low pollution disclosed more on environmental

than others. In conclusion, stockholders activities may not alter the firm's behaviour

on environment.

Moreover, on the disclosure quality, Office and Elvet (2010) examined the

determinants of corporate social responsibility (henceforth CSR) disclosure and its

framework using legitimacy theory. It considered both quality and quantity of the

disclosure. The variables covered include, economic level, level of CG, culture,

social pressure and corporate characteristics. Using annual and standalone report for

the year 2005 and 2006 with a sample of 350 firms of high reputation, the result

showed that all the variables including board size and corporate size determine CSR. Therefore, companies that response to social pressure is bound to disclose more on both quality and quantity of CSR. Finally, the consequences of CSR affect the corporate reputations of the firms.

3.7 Social and Environmental Disclosure Quality: Meaning and Dimensions

Usually information is derived from processed data for the consumption of end users (Lee, Strong, Kahn, & Wang, 2002) and then disclose for the purpose of the transparency and the need of various stakeholders (Guo, 2009). That could lead to some arguments about disclosure quality. These arguments is associated and not limited to, quality meaning and dimension (Hazlett, McAdam, & Murray, 2007), the measurement and accepted proxy for quality (Berens, Van Riel, & Van Rekom, 2007), an accepted framework for disclosure quality (Lee, Kim, Lee, & Li, 2012) and reliability of the information in addition to the accuracy of such information (Hammond & Miles, 2004). For the reasons above, quality is depending on the study and its meaning which will lead to the dimension and finally framework and/or methodology.

As stated earlier, depend on the area and discipline, quality may be interpreted differently. For example, in their study Gorla, Somers and Wong (2010) seen quality in terms of value, excellence in service provision including the information, meeting the requirement of a particular standard and best practice and to meet the need of

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customer in terms of satisfaction and expectations. While Dranove and Jin (2010) see quality in terms of disclosure as variability of information, systematic measurement of information by certification agency and availability of report about a quality of a product in a given market. Therefore, quality of information and standard of best practice is the one that is relevant to this study.

Based on that several studies is conducted for not only disclosure but its quality. For instance, Grüning (2007) conducted a study on disclosure including its quality and corporate characteristics in Europe using a cross sectional analysis in a country and across countries. The items included in the measurement of quality of the disclosure include 118 checklist measured in a categorical data ranging from ―1‖ as least information to ―5‖ as the maximum information disclosed. Five points indicate highly qualitative information in that regards.

Whereas, Wiseman (1982) empirically examined the quality of CED using a sample of 26 environmentally sensitive firms in relation to its performance environmentally. A content analysis is employed on the annual reports of those firms categorised into four with an index and scoring system ranging from 1 to 3. All measurements were adequately and expressed in qualitative form with enough information.

However, Gamble, Hsu, Kite and Radtke (1995) conducted a survey study involving all the stakeholders on not only environmental disclosure but its quality. In the process of the study, they reviewed the policies on CED by firms which include the

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claims and the amount among others. Using a weighted index, it ranks the information on environment on the scale of seven points. The rating was in ascending order meaning the higher the rating the higher the quality of the disclosure.

Raar (2002) also examined the quality of environmental disclosure on the sample of 500 large firms in Australia. The disclosure of environmental quality is measured with a comprehensive GRI guideline. The purpose of using GRI guideline is because researchers on social and environmental studies believed that GRI is quite recommendable in terms quality and adequate disclosure information to various stakeholders. Therefore, the study used the ranking procedures to measure the environmental disclosure quality as identified by GRI in addition to triple bottom line procedures.

In addition, Guthrie and Farneti (2008) conducted a study on sustainability including social disclosure in Australia. The study use GRI guideline for disclosure quality measurement. While it used an indicator of sound and poor reporting, it also categorised them in accordance with GRI priority. In the process of measuring the quality, location, amount and evidence were considered.

In an effort to identified quality signal on accounting disclosure, Toms (2002) primarily formed and distributed questionnaires on CED to professionals as well as the supervisors of disclosure in United Kingdom. The information were categorised

into six and the ranking is based on high and low criterion. The study involved the quality of information on environment and the reputation of firms on environmental issues. It was found that the quality of disclosure played a significant role on environmental reputation of firms in United Kingdom.

However, Hughes, Anderson and Golden (2001) examined the quality of environmental disclosure in relation to environmental performance of firms. The quality of CED is measured using coding system with scores attributed to each disclosure item. Items scored on the determinants of quality were rated based on descriptive, quantitative, vague and finally immaterial. A weighted disclosure index is formed to arrive at the aggregate disclosure quality based on the ratings earlier stated in the study.

In New Zealand, Milne, Tregidga and Walton (2003) investigated environmental disclosure using triple bottom line as contained in United Nation Environmental Projects. This project is managed by a sustainability group. In the triple bottom line, quality is measured using a checklist of 50 items categorised into five. Out of the fifty items forty eight were used to arrive at the disclosure quality. The items were rated from 0 to 4 with a mutually exclusive disclosure score of 0 and 1. That means when an item is disclosed is ―1‖ therefore; non-disclosure score of ―0‖ will never be present.

In addition, Hooks, Coy and Davey (2002) expressed information gap to examine the quality of reporting among listed firms in New Zealand. The study used the yardstick as well as an index explored by some experts composed of varieties of stakeholders. Moreover, a weight is allocated to each items disclosed using accountability as guideline. Six categories of reporting are derived ranging from 0 to 5 inclusive. The said quality is assumed in this study as stakeholder oriented, hence, all factors considered are coined by the stakeholders.

Clarkson, Li, Richardson and Vasvari (2008) used a hard and soft disclosure found in GRI guideline to arrive at the quality of environmental disclosure in Australia. Both hard and soft disclosure were extracted from indicators of environmental information in the GRI, however, is adjusted to suit the study and the environmental situation. An index was developed with the input of professionals and the area of environmental accounting couple with some inputs from committee members of the GRI. Hard disclosure is categorised into four while sort disclosure is categorised into three. Finally using un-weighted index disclosure they arrived at the quality.

In the same vein, Clarkson, Overell and Chapple (2011) used a method similar to that of Clarkson et al. (2008) with little adjustments to examine the CED quality and environmental performance of 51 firms reported by National Pollutant Inventory in 2002. Disclosure quality is arrived at using an index on checklist derived from GRI with 50% highest disclosure index.

However, Bozzolan, Trombetta and Beretta (2009) measured the quality of voluntary disclosure of forward looking using contents analysis. The number of sentences in the forward looking disclosure and the amount of forward looking information contain in a given sentence specifically are considered for quality disclosure measurement. The information is further categorised into five and each category is measured based on three perspective of measurement. The sub-category disclosure is considered as (0,0,0), (1,0,0), (1,1,0), (1,0,1) and finally (1,1,1) and is expressed in in terms of each sentence scores.

Meanwhile, Delmas and Blass (2010) studied an aspect of social reporting which include environmental performance and the quality of the performance disclosure using a procedures implemented by Brammer and Pavelin (2006). The quality of the disclosure is calculated using a serial of questions organised by the researchers in line with bets practice. The questions compose of the of the issue of sustainability reporting, publication of environmental issues, guideline procedures such as GRI, policy implementation and endorsed by CEO, issue of transparency on related to the policy, goals and targets, issues of performance reporting and verifications of data so disclosed by the organisations. An index was utilised using a yardstick of both quality and quantity disclosure design by Roberts Environmental Centre.

Glaum, Baetge, Grothe and Oberdörster (2011) investigated earnings and disclosure quality with International Accounting Standard. With 300 set of criterion, firms were selected from German firms for quality assessment. The disclosure took account of

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the amount and the volume disclosed. In addition, the quality of the disclosure is assessed in line with the International Accounting Standard. One of the reason for the measurement of disclosure quality is for the fact that the study is forecasting base on the earnings of the firms.

Finally, in order to meet up the quality signalling as hypothesized by Siddique, Sciulli and Faux (2011), it comes with the reporting pattern on what to or not to disclose. The disclosure quality in this situation includes the effect of the disclosure and its community involvement in the activities of the firm. Climate Global Standard frame work is used as a guide to environmental disclosure quality. Other information attributed to this is the technique of disclosure and performance disclosure in terms of environment. These include water, emission and waste among others.

In contrast, the literature review are summarised and attached to Appendix 1 of the study. Therefore, in the process of reviewing the literature, this research derived some gaps which lead to the contributions of this study.

3.8 Literature Gap and Contribution

Previous literature regarding the association between CSED and CGM is affected with a number of restrictions that result to inconclusiveness of the result found. In the process of reviewing the literature, some gaps were identified which guide this study on its contributions. These gaps include, low CSED in Nigeria, due to

inconsistencies there is need for moderator. Others are weak measurement of variables, weakness on sample size and the type of data used and weakness on techniques on data analysis.

3.8.1 Limited Studies on CGM and CSED in Nigeria

There is limited research on CSED in Africa even though other countries recorded a significant amount of studies on CSED (see Eng & Mak, 2003). According to KMPG (2011) and GRI (2011) statistics, CSED have increased in advance and the developing countries in the last twenty years. For example, majority of CSED are from Europe which is (45%), with Latin and Northern America (28%), that of Asia (20%), with few from Oceania (4%), and the least is Africa (3%) (GRI. 2011). Among the African countries, Okeagu et al. (2006) disclosed that Nigerian firms are among the least that disclosed social and environmental information. Thus, this study deemed it necessary to conduct a study in Nigeria in this area.

Therefore, this study tries to overcome the challenges facing African countries in respect of CSED as to empirically evaluate the moderating effect of non-executive director's ownership on the relationship between CGM and the quality of CSED in Nigerian firms, taking account of corporate characteristics as a control.

3.8.2 The Need for Moderator

Another significant criticism of previous literature on CSED is that the results seem to be not consistent and/or not conclusive. The irregularity can said to linked to, availability of data and its type, weakness of framework, problem appropriate theories and application of wrong techniques on data analysis (Cormier & Magnan, 1999; Monteiro & Aibar-Guzmán, 2010).

Gray et al. (2001) attributed these inconsistencies to the inappropriate and accurate theory in respect of the CSED. Others may also be linked the differences on the use of different samples and firms (Hazlett et al., 2007), the concentration on different periods and different time lengths (Acerete, Llena, & Moneva, 2011), inadequate control variables and the size of the firms (Kabir & Akinnusi, 2012). Other studies revealed that, lack of research of the relationship within only one conceptual framework plays a significant role in the mixture of the outcomes (Orlitzky, Schmidt, & Rynes, 2003).

To support this claim, Halme and Huse (1997) found board composition to be positively and significantly associated with CED. In contrast, Haniffa and Cooke (2005) discovered that composition of board is negatively associated with voluntary CSD with other researchers found no relationship among the board compositions and CSED (Brammer & Pavelin, 2008). Therefore, the need for moderator arises hence this study argued that ownership of non-executive

directors could moderate the relationship. This is because, the larger the ownership of the board, especially non-executive directors, the more they disclose additional information in their annual report for transparency (Young, Peng, Ahlstrom, Bruton, & Jiang, 2008). In the same vein, the larger the ownership of non-executive directors the more they paid attention to internal governance mechanisms (Ahmed & Duellman, 2007; Brammer & Pavelin, 2008; Mak & Li, 2001) which in turn could lead to more disclosure and its quality thus, address the stakeholders conflicts.

3.8.3 The Measurement of CSED

Another important weakness found in the previous studies is most of them utilised and measured CSED in terms of its volume and not necessarily the quality of CSED (Cowan & Gadenne, 2005; Haniffa & Cooke, 2005; Huafang & Jianguo, 2007; Patten, 2002). Some researchers on CSED were on the view that, the volume of disclosure does not in any way depicts its quality (Cho & Patten, 2007). Meanwhile many of them used few CGM for explaining the changes in CSED and as broader as it should be (Haniffa & Cooke 2000). In addition, Neu, Warsame, & Pedwell (1998) identified the weakness of quantity of disclosure as it failed to recognised the techniques and process of management decisions. Based on those reasons, this study conclude that the use of volume did not mean disclosure quality and since disclosure quality is scanty globally, there is need for additional studies on disclosure quality especially CSED quality. This is in line with the information found by (Beretta & Bozzolan, 2008). Base on the above issues raised on the quality

of the disclosure, the current research overcome the weakness of other research on the quality disclosure issue by using scoring system and checklist in line with GRI guideline and researchers like Mio (2010).

3.8.4 The Weakness on Samples

Sample size is an important aspect of research as so many studies were criticized simply because of their sample size. The sample of a study can be small and homogenous in nature with regards to its population. So many studies complained and identified sample size as their limitations of their studies (Bacchetti, Wolf, Segal, & McCulloch, 2005; Dell, Holleran, & Ramakrishnan, 2002; Guthrie & Parker, 1989; Krzywinski & Altman, 2013). According to Zahra, Neubaum and Huse (1997) the low sample could reduce the disclosure of boards participation considering various firms into consideration based on their operations and sensitivity. In addition, there were increase in consideration of large firms (see Dawkins & Fraas, 2011; Dranove & Jin, 2010; Gray, Kouhy, & Lavers, 1995; Guidry & Patten, 2012) or those organisations that belong to environmentally sensitive such as high profile industries (see Clarkson et al., 2008; Freedman & Jaggi, 1982, 1988).

Since there are discrepancies on the firm's type and category, the outcome of so many studies cannot be generalised simply because of the sample size weaknesses. To overcome that, this study considered all listed firms in Nigeria.

3.8.5 The Weakness on Type of Data

Data is said to be cross sectional, time series and panel in nature (Gujarati, 2004). It was further emphasized by Gujurati that, while cross sectional bear no time, the time series has time horizon with no cross section. In addition, the panel is composed of both cross section and time series. Therefore, relevance of time seems to be neglected in past studies. Almost all previous research analysing the factors of CSD or CED utilised cross sectional data (see Abu-Baker & Naser, 2000; Adams, 2002). Even though some studies used time series is still limited (Lu & Abeysekera, 2014).

Gray et al. (2001) emphasized that, the relationship that is to be exposed over time cannot be ascertain by cross sectional analysis, hence there is need to overcome the weaknesses that may arise as result of the data used. According to Hassan (2012), the time series could also tackle the issue of trend on environmental analysis. This is also confirmed by Haniffa and Cooke, (2005).

While undergoing current study, there is still difficulties in assessing literature to date that conducted any efficient longitudinal analysis on CGM and CSED in the context of Nigeria. In an effort to deal with the empirical shortfall in Nigerian CSED research, the current study used panel data, over 2010-2014. The reason for the use of panel data is line with the investigation of Brammer and Pavelin, (2006) that panel investigation would assist to solve the problem of causality and give more information on the growing pattern of disclosure.

3.8.6 The Weakness of Techniques

Many studies use a technique of evaluation, generally called OLS. This technique has some weaknesses as identified by Gurati, (2004). For example, OLS could sufficiently solve the problem of the data is censored or categorical in nature as is common to content analysis research (Cormier et al., 2005). Furthermore, OLS cannot take account of time variant of data. For that reason, Feasible Generalised Least Square is utilised for further analysis. This is done to overcome the weaknesses of the OLS especially for the issue of time variant and the presence of heteroskedaticity.

3.9 Theories on Corporate Governance and Corporate Social and Environmental Disclosure

There are so many literature social and environmental disclosure which reveal a lot of differences in the theoretical point of view implemented in the study (Urquiza, Navarro, & Trombetta, 2010). The differences could be attributed to inadequate framework (Deegan, Rankin, & Voght, 2002), lack of suitable theory on social and environmental disclosure (Cho, Freedman, & Patten, 2012) and poor theories in respect of the research on social issues (Campbell, 2000). Nevertheless, some theories played a significant role on CSED which include stakeholder' theory and legitimacy theory. Both legitimacy theory and stakeholder theory have their origins from political economy theory (Deegan, Rankin, & Voght, 2002). These said

theories could be linked to issues on environmental disclosure and the role of company on its stakeholders relationship, since firms are accountable to its stakeholders (Lu & Abeysekera, 2014). Therefore, it has been suggested that they are the actual and supporting theories (Gray et al., 1995).

In the same way, corporate governance does not have theories in isolation (Parum, 2005) but has guided theory known as agency theory. The theory is paramount on corporate governance mechanism especially for their role on disclosure issues as it reduces some conflicts among the firms and their stakeholders (Darus, 2011).

Summary of the different theoretical viewpoints are discussed hence, a framework is formed for this study based on the reviewed theories.

3.9.1 Legitimacy Theory

According to Zelditch (2006) the proper way of things to be done naturally with a general acceptance by not only the beneficiaries but others who may not gain from it is termed legitimate. Therefore, legitimacy theory could be seen as proper and acceptable way of action, presentation as well as lawful activities by firms in a social judgement (Bitektine, 2011). In terms of disclosure, however, legitimacy theory offered prominent ideas. According to Clark (2003) the value of firms are in agreement to that of the system of the society with social justice as the firm is part of, thus, any conflict on the values so agreed could lead to legitimacy risk.

Therefore, firms are sustained based on their relationship with the society in terms of their norms and value if could be respected based on this theory. Consequently, the disclosure of information on social and environmental issues by firms will enhance its legitimacy (Brønn & Vidaver-Cohen, 2009; Wilmshurst & Frost, 2000). For that reason, to be legitimate is to disclose both social and/or environmental information in line with the societal norms and values which they operate.

Hence, the theory could be seen as a response of firm or organisation to societal pressure in respect of their social and/or environmental performance (Onkila, 2009). In reaction to these pressures, companies respond by revealing more social and environmental details to be able to protect their integrity in the eyes of the society which could have a negative impact on their operational activities (Bitektine, 2011; Charl de Villiers & van Staden, 2006).

For that reason, one can deduce that the theory focused on significance of firms on the society and their approval which could assured the existence of a firm (O'Donovan , 2002). In this case, companies tend to authenticate issues on their actions via numerous ways, such as interaction among the society and appropriate stakeholders (Ghazali, 2007; Treviño, den Nieuwenboer, Kreiner, & Bishop, 2014). Social and environmental legitimacy may affect company environmental dedication and, hence, management's choices regarding environment (Archel, Husillos, Larrinaga, & Spence, 2009; Dowling & Pfeffer, 1975).

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Several researchers have employed this theory in both social and/or environmental disclosure literature (e.g Archel, Husillos, Larrinaga, & Spence, 2009; DeVilliers & Vanstaden, 2006; Deegan, 2002; Ivory, 2013). Nevertheless, a lot of studies could not provide a proper solution to the theory on the side of the firms, instead several question were unanswered about the social and environmental disclosure issues (Archel et al., 2009; Deegan, 2002; Palazzo & Scherer, 2006).

Past research prove that legitimacy theory was insufficient to describe CSED on relationship between legitimacy and disclosure which was partially reinforced for environmental concerns and the community (O'Donovan , 2002). Furthermore, Wilmshurst and Frost (2000) reliably disclosed on the past analysis inadequately offered no reliable solution on the theory deficiency on environmental details. Additionally, Campbell (2003) insist on the inappropriate measures by the legitimacy theory proponents on the disclosure of environmental issues to the society and their related activities.

3.9.2 Stakeholder Theory

The theory of Stakeholder also known as stakeholder theory, is emphasised on the involvement of the relevant stakeholder concern before taking a decision, be it on disclosure as the case may be (Jensen, 2002). Accounting discipline usually uses this theory on CSD and CED more often than not. The theory comprises the acknowledgement and recognition of the association between the organisation's

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behaviour and that of the stakeholders (Ackermann & Eden, 2011). Consequently, there must be harmony between the organisations and the stakeholders on the activities of those organisations. Gray et al. (1995) emphasize that, stakeholders influence on an organisation play a significant role in the adaptation by the organisation concern. In addition to that, Gray still insists that, due to the availability of stakeholders and their pressure around organisations therefore, the organisations have to account for every action taken that could have an adverse effect on the environment. Moreover, as the importance of the stakeholders to the corporations is increasing, the management of such organisation will increase their positive relationship through the improvement of disclosure on CSED. The theory prevailed that for a business to prosper, there must be a corresponding value to it and the moral principles cannot be separated from economy (Freedman & Patten, 2004). Therefore, Freeman, Wicks, and Parmar (2004) insist that supervisors communicate the shared feeling and concerned of the stakeholders on the value relevance of the information generated from the firms. This is in addition to the managers concern about the need for business to succeed provided they meet up the stakeholders aims by strengthening their relationship. (Jensen, 2002). Stakeholder theory is built on two streams: (1) interpreting the stakeholder idea, and (2) identifying stakeholders' understanding of its relationships (Fassin, 2012).

Several efforts have been made as to stakeholders' meaning. Freeman et al. (2004) describes it as an individual or group of persons that has direct bearing on an organisation as a result of their normal activities. While Magness (2006) explained

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the theory as people who one way or the other have direct benefit and/or claim on the organisations surrounding their environment.

Stakeholders are composed of among others as stockholders, clients, debtors and creditors, workers, opponents, interests of the public, government, stock markets, industries, society as well as public. The stakeholders always put their interest first before any of the organisation (Friedman & Miles, 2002; Hill & Jones, 1992). The primary benefits of stakeholder theory are different, inconsistent interests. Therefore, the theory accommodates more perception in view of CSED analysis, which means, the interest of shareholders and stakeholders must be addressed and harmonised since they have mutual relationship (Burchell & Cook, 2007). Thus, the theory is useful in this study simply because there is provision of structures in the CSED system (Snider, Hill, & Martin, 2003). According to Snider et al. (2003), the theory is further classified into two groups. The first classification associates to the moral value known as normative division and the second classification associates to the managing division. They all termed as prescription and description respectively.

The first classification considered disclosure of information, be it social or environmental, as right and not a privilege for the stakeholders, thus, they should be informed on the daily activities of the firms in respective of the negativity of such information. This is also in agreement with social justice, where all stakeholders were required to be given information, regardless of the importance of such information on them provided it has some effects on the stakeholders (Jensen,

2002). This is also supported by Gray et al. (1995) where they insist that accountability is a responsibility to offer account (not necessarily financial) and estimate total activities that an organisation is responsible. The accountability includes the obligations of, performance of some actions and bearing responsibility for it, and the obligation to account for those actions taken.

The second classification is the managerial aspect. Compared with the normative of stakeholders theory, the managerial viewpoint claims that companies will seem to fulfil the information requirements of the stakeholders that become essential on the organisation's success even though stakeholders varies on their impact on the organisation (Magness, 2006). Therefore, the availability of information to a stakeholder in isolation depends on how extremely effective the stakeholder seem to be on the matter at hand (Mainardes, Alves, & Raposo, 2011).

For the reason above, it becomes clear that CSED could be referring to under the managerial stakeholder theory; however, CSED utilised this theory as dialogue between the company and the relevant stakeholders in the organisation (Gray et al., 1995). Thus, it plays a role of acceptability on a firm's activities and to disturb stakeholders' resistance rather than to launch accountability (Deegan, 2002). Therefore, stakeholder theory can curtail the stakeholder concerned and their grievances in relation to the effectiveness of the company in terms of their corporate disclosure (Gray et al., 1995).

The theory identifies and involve so many stakeholders that are fascinated more often on social and environmental trends of organisations and, as a result, need more details in respect of the effect on daily movement on the their closest environment (Acerete et al., 2011). To the level that companies identify the rights of their stakeholders' interests, they usually willingly review all their social as well as the environmental disclosure in order to fulfil their demands (Huang & Kung, 2010).

There are pressure on the demand for social and environmental disclosure by so many stakeholders as a result of their concern on the responsibilities of firms in respect of environmental issues coupled with its associated cost and responsibility (Elijido-ten, 2004). In respond to this requirement, many organisations are providing separate voluntary CSED in addition to the conventional reporting system. Furthermore, in the process of improve CSED, all associated risk including the return for stakeholders are taking care of (Kassinis & Vafeas, 2006). Also, stakeholders challenged the fact that CSED symbolizes firm' previous and forthcoming success (Stieb, 2009). Thus, the theory offers framework for the disclosure of social and environmental problems in respect of firms and its stakeholders (Joseph, 2007; Stieb, 2009).

3.9.3 Agency Theory

In line with the general definition of agency theory, it could be seen as action by an individual or group of individuals that act on behalf of another party (Shapiro, 2005).

The theory of agency has been dominantly used in accounting literary to describe and evaluate corporate governance. The theory was presented during the nineteen seventies as a phenomenon that involve firms or organisational consent that involve both principal and agent between investors and managers of the firms (Heath, 2009). This is in addition to the extent of maximisation of stockholders wealth and equity (Nyberg, Fulmer, Gerhart, & Carpenter, 2010).

In this regards, there high possibility of consumption of the theory by governance structure of the firms that could lead to dissolution of conflicts that may arise among the principal (shareholders) and the agent (managers) (Devilliers et al., 2011). The relationship in agency usually result from one or more individuals (also known as principal) interact with other individual (called agent) for execution of some duties which includes assigning some decision and power to the agent (Charles, Hill & Jones, 1992; Shapiro, 2005). The main ingredient of this relationship is the divergent of interests by both parties. Some of the unique attributes of such relationship is the inconsistency of both principal and agent objectivity in addition to the high tendencies for principal and agent to agree in the situation of threat (Hill & Jones, 1992). Moreover, the author recommended two factors for agent failing to effectively take part in the principal interest, that of adverse selection and finally, the moral hazard. For example, while adverse selection prevails that agent go against the principal in some cases, the latter prevails the failure of agent to follow the principal interest as a result of some difficulties.

In the process of separation and division of duties among the parties that has to do with ownership and management, agency expenses arose which could be monitoring expenses, bonding expenses and residual reduction expenses (Jensen & Meckling, 1976). Therefore, the theory could resolve issues of information asymmetry which could cause conflict of interests among the parties involved (Ang, Cole, & Lin, 2000). Thus, there is a need for management to make sure of their initiatives take full advantage of the wealth of shareholders. The agency expenses mostly suffered in the process of decreasing or removing the consequences of agency disputes, which is unavoidable especially when agents execute activities that are opportunistic in nature for their selfish interests. Thus, agency theory played a significant role on corporate board studies in addition to other governance attributes studies (Singh & Davidson III, 2003). Thus, in line with corporate governance context, the theory is in the support of managers perspective and not stockholders in respect of social and environmental issues as a result of their neutrality on company's earnings (Graves & Waddock, 1994). In some instances, issues might be displayed and resolved by agents on social and environmental concerns since they are not the investors (Halme & Huse, 1997). Additionally, compare with their counterpart, the said agents may participate fully on non-profit objectives, for example environmental safety, to be able to protected their roles (Wang & Coffey, 1992).

Hence, agency theory is paramount on CSED since it is expressed through CGM simply because managers of an organisation have more accessibility on company's details than shareholders and they are responsible for reliable disclosure in order to

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improve company worth, this is done via the decreasing of agency expenses (Craswell & Taylor 1992).

3.10 Summary of the Chapter

This chapter presents relevant literature reviews to explain CGM and CSED. It also discussed on quality of CSED, development of CSED in Nigeria. It further discussed the development of corporate governance in Nigerian. In addition, it reviewed the the relationship between CGM and CSD, CED, VD and CSED quality. Furthermore, CSED meaning and dimensions were reviewed. In the same vein, literature gap is established. Theories on CGM and CSED are reviewed in this chapter which compose of, the legitimacy, stakeholders and agency theory. The next chapter focused on hypothesis development and theoretical framework.
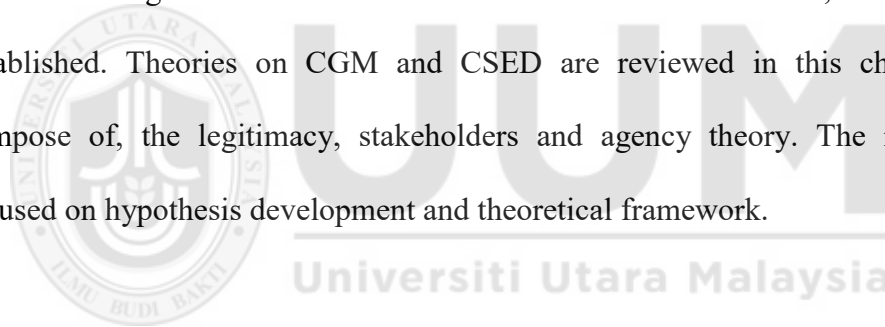
CHAPTER FOUR

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

4.1 Introduction

This chapter proceeds from previous chapter, which reviewed relevant literature on CGM and CSED quality. Therefore, the aim of this chapter is to discuss and established the theoretical framework as well as development of hypotheses. The development of the hypotheses is based on the theoretical perspective and empirical research is also discussed in this chapter.

4.2 Theoretical Framework

Review of past literature on CSED showed that so many factors are responsible for the low level of CSED among which CGM is key factor (Liu & Anbumozhi, 2009). Previous studies found a positive relationship between board independence and CSED (Higgs, 2003; Ho & Wong, 2001; Webb, 2004; Zattoni & Cuomo, 2010). In related development, board size is also found to be positively related to CSED (Cheng & Courtenay, 2006; Leblanc, 2007; Lim et al., 2007). In the same vein, other researchers (Chou, Chung, & Yin, 2013; Khanchel, 2007; Shivdasani & Yermack, 2014; Vafeas, 1999) found that board meetings is related to CSED. Literature review also found that directors qualification, audit committee independence are related to CSED. Some found positive, some negative and some no relationship between CGM

and CSED (Brick & Chidambaran, 2010; Gul & Leung, 2004; Welford, 2007). Based on the stakeholder and agency theory, a theoretical framework for this study is constructed showing the moderating role of non-executive director's ownership on the relationship between CGM and CSED quality. In this study, CGM is composed of board independence, board meetings, board size, audit committee independence and corporate environmental responsibility committee presence. While size, industry and profitability are control variables as seen in Figure 4.1.
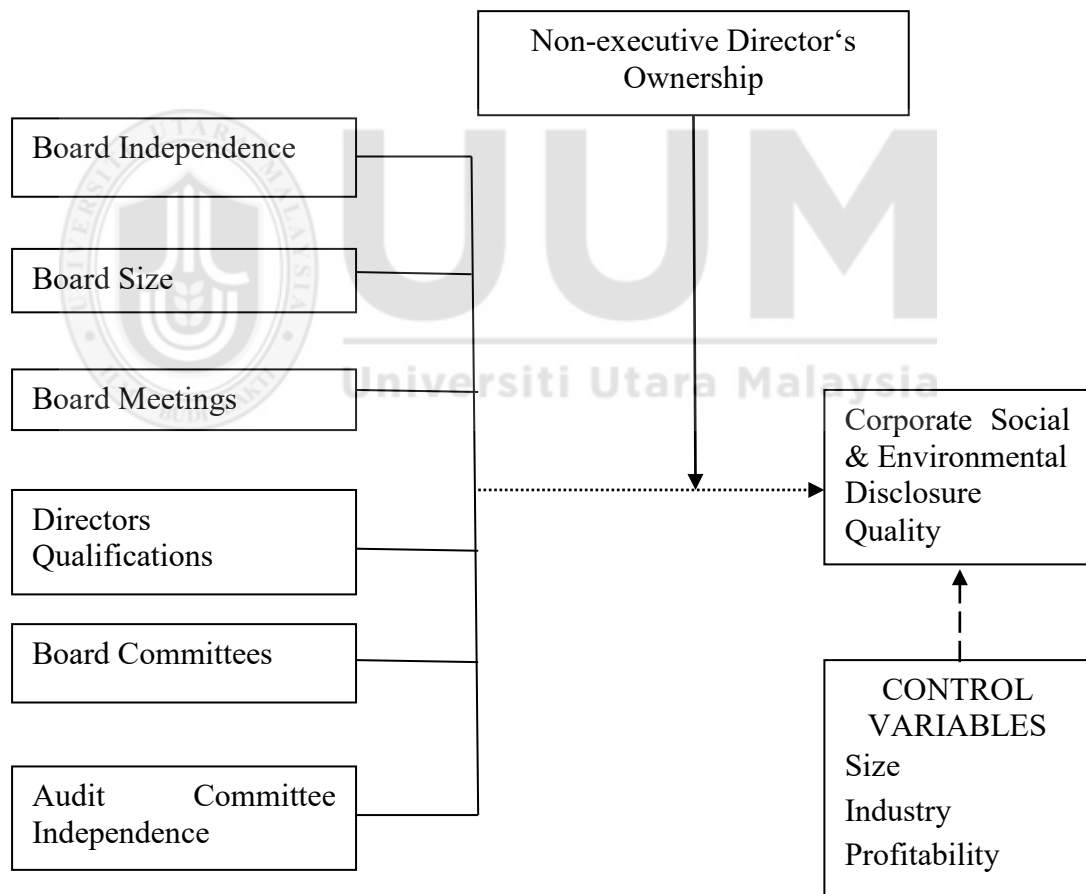
Figure 4.1 Theoretical Framework

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From the framework shown theoretically in Figure 4.1, the stakeholder theory support the disclosure as the proponents of the theory assert that, as the quality and volume of disclosure of firms improved, it could address the agitations of various stakeholders since they relied on the information disclosed while the CGM is supported by agency theory as the CGM is the representations of the firm and can therefore stand for the company to address any conflict that may arise between the company and its stakeholders as a result of low disclosure (Watson, Shrives, & Marston, 2002; Ayuso & Argandoña, 2009; Maharaj, 2008). The disclosure also include corporate social and environmetal disclosure.

Based on the framework developed in Figure 4.1, corporate social and environmetal disclosure (CSEDQL) is the dependent variable while board independence (BI), board size (BS), board meetings (BM), directors qualifications (DQ), board committess (BC) and audit committess independence (ACI) are the independent variables which are also the corporate governance mechanisms (CGM). In addition, non-executive directors ownership is a moderating variable as indicated in the framework. The control variables include size (SIZ), industry (IND) and profitability (PROF).

The framework clearly indicates the moderating effect of non-executive directors' ownership on the relationship between CGM and CSEDQL. The direct relationship between CGM and CSEDQL is to address objective two while the moderating relationship is to address objective three of the study.

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One of the main distinctions of this framework is the presence of non-executive ownership as moderator. This is in addition to the use of two theories Stakeholder and agency theory on the framework. Another important distinction is the consideration of varieties of CGM components. Thus, the study can be said to be distinguished on the highlighted reasons above.

4.3 The Underpinning Theories

Examining relevant past literature shows a variety of frameworks were formulated and utilised in the process of description as well as evaluation of corporate governance with social and/or environmental disclosure. Studies on CGM and CSED is inadequate so far due to the application of various thought on different displace that may not be unconnected to the background of the researchers (Jiang, Habib, & Hu, 2011). It is important to note that, theory can only guide studies on the process of what ought to be done and not what could be done. Therefore, it eliminates a lot of factors when we are faced with selection or decision (Orlitzky et al., 2011).

Even though differences exist on the theories, it was however, clear that, so many research of different theoretical background has recognized that good CGM improved disclosure which lead to transparency (Cormier, Ledoux, Magnan, & Aerts, 2010; Griffin, Lont, & Sun, 2009). Hence, CGM is regarded as an essential tool in identifying the ingredients of disclosure needed to meet up the expectation of numerous stakeholders since the board controls the information for both financial

and non-financial reports (Haniffa & Cooke, 2005; Huafang & Jianguo, 2007). The current research investigates the relationship between CGM and the quality of CSED in Nigerian listed firms'. CSED can be seen as technique implemented by an organisation to fulfil the social and environmental objectives of different stakeholders. According to stakeholder theory, social and environmental reporting allows companies to interact with its stakeholders about the size of their environmental and its related activities on its products in addition to the services rendered. Therefore, the disclosure of environmental issues is considered to be aspect or process resolving conflicts among the parties involve i.e organisations, firms and stakeholders (Gray et al., 1995). On the other hand, agency theory could be seen as a mechanism of resolving principal-agent disputes via good CGM.

Focusing on stakeholder-agency theory therefore, the study argued that organisations are progressively committed to social and environmental issues, via the presentation of social and/or environmental disclosure in a manner that could manage any relationship with the stakeholders. In the same vein, good CGM are used for accounting techniques and transparency, for firms most response to the needs of stakeholders by reduction on information asymmetry and this could be enhanced if such disclosure meet up the best practice, in other words, the quality of such disclosure. Thus, the quality of CSED to stakeholders is improved when CGM is put in place to monitor managers' opportunistic adjustment. For that reason, this study used stakeholder-agency theory.

4.4 Stakeholder and Agency Theory

The stakeholder-agency theory is theoretical development that has a wider point of view than stakeholder theory or agency theory alone (Hill & Jones, 1992). The incorporation of the stakeholder theory with agency theory will increased the principal-agent commitment on CSD or CED. This could describe the nature of the relationships that can be found between a companies and stakeholders. Hill and Jones, further disclosed on this strategy and regarded it as a modification of agency theory that represents competent markets and denies the concept of differences on power that exist among managers and the stakeholders.

In addition, stakeholder-agency theory controls management and stakeholder conflicts of interests. For proper management of the conflict, there is need for more disclosure, mostly CSED, by the promoters in connection with the stakeholders with their assistance on issues raised on the environment (Watson, Shrives, & Marston, 2002). Therefore, efficient use of disclosure plan, with regards to disclosure quality, could be seen as a tool of developing confidence among the shareholders. Thus, stakeholder-agency theory is useful for this study.

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4.5 The Theories on the Relationship between Corporate Governance and Corporate Social and Environmental Disclosure Quality

Based on the discussion of various theoretical point of views, this study found that stakeholder-agency theory is an appropriate conceptual framework for the analysis anticipating CGM to have an impact on CSED in Nigeria. Therefore, stakeholder-agency theory is used as the theoretical framework for this study. This is as a result of the fact that, the analysis tries to comprehend the magnitude of the variables and their impact on organisational activities in respect of stakeholder response. Therefore, stakeholder-agency theory could be paramount to the present study.

This study examines the relationship between CGM and CSED quality. In the process, the study argues for the need to consider the association among companies and its stakeholders, as described in CGM, once developing an environmental plan of a company. CGM play a significant role on CSED by dealing with different stakeholders. Hence, CGM is regarded as an essential mechanism for identifying the disclosure needed to fulfil needs of stakeholders in terms of information disclosure, since, is the board that controls the disclosure of information (Ayuso & Argandoña, 2009; Maharaj, 2008).

The disclosure of social and environmental issues is regarded as technique implemented by firms in order to fulfil the social and environmental objectives for different stakeholders. In line with stakeholder theory, reporting on environmental

issues allows companies to express and interact regarding their activities about the society and/or environment. Therefore, social and environmental disclosure could be seen as that aspect of negotiation between firms and stakeholders of the particular environment (Gray et al., 1995). However, agency theory used to maintain the peace and control the conflicts among principal and agent in the presence of CGM.

Thus, stakeholder-agency theory could argue on progressiveness of companies regarding their disclosure of social and/or environmental issues. If firms disclosed information on either social or environmental, then the firm is said to be socially and /or environmentally responsible. This could be enhancing the establishment and enforcement of quality CSED. Therefore, the relationship between the firms and its stakeholders is maintained if not improved. For that reason, it is agreed that comprehensive CGM could provide accountability and that could help to meet the needs of stakeholders. This is done when an information asymmetry is minimized. Consequently, this study argued in favour quality of CSED as this could improve the managers' opportunistic adjustment which in turn, could create good relationship with stakeholders as checked by sound CGM.

Since stakeholder-agency theory promulgates accountability therefore, the actions of management should be, in the interest of transparency, supported by disclosure, in the case of this study, the disclosure of social and environmental activities. Thus, could it be stakeholder-agency theory properly explains the disclosure procedure, then an efficient disclosure plan needs management to track and monitored the

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information needs by various stakeholder; thereby, fulfil the needs of different stakeholder groups through customisation of CSED accordingly. Therefore, stakeholder-agency theory shows that business success and its survival is conditional on fulfilling both its economic gain and otherwise which include social and environmental performance, where the problems of stakeholders could be addressed (Pirsch, Gupta, & Grau, 2007). Under this point of view, CSED help the stakeholders to seek for support by the organisational commitment and their existence (Cormier et al., 2005) this is in addition to control of stakeholders' conflicts couple with disengagement on unlawful activities and to launch accountability on their environmental disclosure (Deegan, 2002).

The same way, CGM is seen as a tool for proper accountability in the eyes of the stakeholders (Devinney, Schwalbach, & Williams, 2013). For that reason, the board functions as an intermediary between the organization and its related stakeholders. Therefore, board of directors as an aspect of CGM including other mechanisms, could be more accountable in terms of disclosure issues.

One of the major contributor of accountability is transparency which is seen as an essential signal of good CGM in an economy (Devinney et al., 2013; Ho & Wong, 2001) Agreeing with Gul and Leung (2004) point of view on transparency, is connected to effective and sound CGM developed to secured stakeholders interests thereby improving organization transparency and directors' accountability. For that reason, firms focus on stakeholder involvement impacts the quality of voluntary

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reports (Boesso & Kumar, 2007). Therefore, CGM is more focus on the way outside stakeholders observe the management of organizations (Ho & Wong, 2001) and hence, improve company's disclosure.

Since board of directors impacted significantly on environmental performance (Eng & Mak, 2003), through dedicating more time to the governance of CSED (Mackenzie, 2007), therefore, involving various CGM increases tracking the quality on disclosure and decreases the advantage of holding the information, thereby, enhances the quality of social and environmental disclosure (Mackenzie, 2007).

Accordingly, offering quality disclosures is probably reliant upon sound CGM, as being tuned in to meet up stakeholder needs. Any organization that has efficient CGM, therefore, will offer accessible in addition to quality information thereby encouraging stakeholder involvement (Eccles et al., 2001). In conformity to this idea, Beekes and Brown (2006) discovered that an organisation with a good governance mechanisms disclosed more quality informative for the benefits of their users. Moreover, Salo (2008), discovered CED quality to be favourably associated with CGM. Thus, disclosure quality could have a direct bearing on asymmetry of information. This could be done after modification of the investors pattern of trading which could result to decreasing rewards on information issues in particular (Cheng et al., 2006).

However, a well sound and effective system of governance is expected to improve corporate reports organised by the management, and that indicates corresponding relationship on both the systems (Grüning, 2007). Therefore, literatures predict and explore a positive relationship between CGM and companies' disclosure. Alternatively, if the association can be replaced by other activities, CGM could not be associated with disclosure since one CGM may replace another one as an alternative. In this respect, a costs and benefits could be traded for one another in respect of the said disclosure (Grüning, 2007). Therefore, it can be suggested that utilising several CGM is essential to performance of an organisation and would eventually result in disclosure quality.

For the reasons stated above, the current research asserts that CSED could stand as a function of CGM. Therefore, the study looks into the effect of CGM on the quality of CSED in all the listed firms in Nigerian.

4.6 Hypotheses Development

Literature shows that CSED is complicated concept which might be motivated by so many causes. This study examines a number of attributes of CGM as determinants of CSED and that include control variables, unlike prior studies, this study focused primarily on CGM to determine the capacity of firms on disclosure of social and/or environmental facts as well as the disclosure quality after taking consideration of the moderating effect on the relationship by non-executive director's ownership.

In order to achieve this objective, the supported mechanism called CGM, is compose of board independence (BI), board size (BS), board meetings (BM), directors' qualifications (DQ), audit committee independence (ACI), board committees (BC), as well as non-executive director's ownership (NBO) as a moderating variable.

The main advantage of selecting these variables, is because CGM monitor the disclosure of all information through the management whose activities portray stakeholders interest (Ujunwa, 2012). In totality, the mechanisms impact and focus on social and/or environmental issues couple with the manner at which firms relate to their stakeholders in a giving community. This, consecutively, is shown in CSED. Thus, all variables are discussed that lead to hypothesis development for test through establishment of a relationship between the independent variables and the dependent variable. The variables include board independence, board size, board meetings, and qualification of directors, board committees and audit committee. Others are the moderating variable, non-executive director's ownership and control variables as, firm size, industry and profitability.

4.6.1 Relationship between Board Independence and CSED Quality

The percentage of independent non-executive directors on the firms board is considered as a significant aspect impacting firm disclosure in general (Ho & Wong, 2001) and corporate social and environmental disclosure (CSED) in particular (Haniffa & Cooke, 2005). The directors on who are independent usually paid more

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attention to corporate social and environmental responsibility (Webb, 2004) hence, CSED. The concentrate of board independence is based on agency theory and in addition to stakeholder theory. Since they are represented in the stakeholders therefore, independent non-executive directors mostly are perceived by so many studies as a mechanism for monitoring and control management (Higgs, 2003; Zattoni & Cuomo, 2010), this could bring about more information on disclosure be it environmental or otherwise. For that reason, Hill and Jones (1992) revealed in his study that the more the increase of independent directors (non-executive) the better the performance of board to monitor managerial decisions and, as a result, the increase in voluntary disclosures which include social and environmental ones. In the same vein, Eng and Mak (2003) disclosed that if there are more of non-executive directors in the firms boards that could improves not only the disclosure but also, the quality of such disclosure be it financial or otherwise and decreases the gains of suppressing the information of the disclosure. Moreover, there could be more objectivity by the independent directors and may consider different stakeholders while making their consideration as well as recommendations in their report (Gao & Kling, 2012). For that reason, there is tendency to offer obvious facts in a broader perspectives to various stakeholders which will assist to accomplish the corporate planned goals and objective (Huang & Kung, 2010).

Contrary to the believe for abundance studies on disclosure nevertheless, empirically, studies on board independence and CSED remain inadequate. Even though Brammer and Pavelin (2006) could not able to establish a significant association on board

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independence and CED, other studies confirmed the presence of positive relationship between the ratio of non-executive directors and CED by Post, Rahman, and Rubow (2011). This is also confirmed by Huang and Kung (2010). From this reason above, this study deduced the relationship among board independence and CED is mixed and that triggered moderation. To prove it, while Barako et al. (2006) as well as Haniffa and Cooke (2002) established negative relationship between the independent non-executive directors and corporate disclosure (CSED inclusive), Cheng, Courtenay,and Krishnamurti (2006), Huafang and Jianguo (2007) and Lim, Matolcsy, and Chow, (2007) acknowledged and recorded positive relationship between the percentage of non-executive directors and corporate disclosure (CSED inclusive), with Ho and Wong (2001) failed to find any relationship among the variables . Therefore, in order to overcome the inconsistency in the result as stipulated above, this study introduces non-executive director's ownership to moderate the relationship.

Some evidence from so many studies highlighted that non-executive directors are in a position to check and balance the activities of board which could improve board efficiency and more effective through the reduction of agency disagreements between managers of the firm and owners of the firm (Liao & Lu, 2009), they also assist to ensure that firms are chasing stakeholders' interests which is strongly aligned with their goal (Arena, Bozzolan, & Michelon, 2014; Haniffa & Cooke, 2005). That result to better position with stakeholders' interests, which should in turn increase transparency, increase better prospect of quality social and environmental

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information distribution (Brammer & Pavelin, 2008; Chobpichien et al., 2008). Based on that, the following hypotheses are formed:

H₁: There is a positive relationship between the board independence and CSED quality.

4.6.2 Relationship between Board Size and CSED Quality

The dimension of the board is as vital CGM and this has been an area under discussion for financial reporting scholars. In accordance with agency thoery, a board with large members has superior and well monitoring competency (Eugene, Cheng & Courtenay, 2006; Lim et al., 2007) hence, is considered as a powerful governance instrument in monitoring performance of management. The higher number board's members the more possibility to yield better demonstration of independent directors who are highly experienced (Leblanc, 2007) therefore, could affect opportunism of management negatively by altering interest on CSED (Sun, Salama, Hussainey, & Habbash, 2010). But from the perspective of stakeholder theory, however, it is argued that the larger the numbers of directors on board the higher the increase in the diversity of composition of board. Thus, the size of a board improves a corporation's capacity to comprehend and tackle the mixture of numerous interests of stakeholder (Welford, 2007), which in turn promotes better transparency in addition to more details for disclosure be it environmental or otherwise (Akhtaruddin & Haron, 2010; Gul & Leung, 2004; Haniffa & Cooke,

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2005). Furthermore, it improves decision and rising harmony among stakeholders (Abidin et al., 2000; Ho & Williams, 2003). In terms of processing of information, larger boards improve capabilities of information-processing in addition to the quality of recommendations set for firm's management, which results in good picture of various interest of stakeholder, since their performance may not be vulnerable to managerial supremacy compare to the board that is small in terms of size (Akhtaruddin, Hossain, Hossain, & Yao, 2009).

Many studies depicts that large boards usually assist in governance task of the organisational board which served as control mechanisms (Akhtaruddin et al., 2009; Donnelly & Mulcahy, 2008). It is generally believed by scholars that, the size of the board has direct bearing on the composition of the board in terms of mixed professionalisms as the chance of having various professionals such as, financial experts, legal professional and environmentalist could be very high due to the size of the board (Welford, 2007; Xie, Davidson, & Dadalt, 2003). Moreover, large boards determine organisational commitments on vital issues that could result in control of social and/or environmental uncertainties (Boone, Field, Karpoff, & Raheja, 2007; Pfeffer, 1972), thereby enhancing corporate performance (Cheng, 2008; Dwivedi & Jain, 2005).

Some studies suggested that, large boards can be dysfunctional (Eisenberg, Sundgren, & Wells, 1998; Khanchel, 2007). In line with that Raheja (2005) suggests that board size impedes the board's ability to chase long-term objectives due to

disputes that may arise in the process of performing their duty. In their studies Hermalin and Weisbach (2003) disagree with the previous studies as they emphasize on agency disagreements, conflicts among parties and the problem of supervision as the major problem of larger board. Nevertheless, this could only be possible if the board is very large in size. The conflicts could be as a result of miss-coordination which in turn affects decision making negatively, thus, results in board inefficiency (Cheng, 2008; Eisenberg et al., 1998; Gonzalez & André, 2014). Nevertheless, the difficulties found could be offset by the increase in board's monitoring capability (Raheja, 2005) and they could significantly reduce problems via the creation and utilisation of subcommittees in order to improve the coordination especially that of disclosure issues (Rahman & Ali, 2006).

Despite so many attempts by studies on board size and general disclosure, empirically, there is limited evidence on the relationship between board size and CSED. While Cormier et al. (2011), Huang & Kung (2010) and Cormier, Ledoux and Magnan (2011) established positive relationship between board size and CED, some could not establish any relationship between board size and sustainability/CED (see Michelon & Parbonetti, 2012). Other studies also proved to establish a negative association between board sized and social and/or environmental disclosure (Arcay & Vazquez, 2005; Cormier et al., 2010).

In relation to stakeholder and agency theory, this study therefore, argued that, the larger the size of the board the better the mechanism of disclosure thereby resulting

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in CSED increase (Halme & Huse, 1997; Ho & Williams, 2003) therefore, increase high expectation of CSED diffusion. In line with this view, this study argued that the more the number of directors on board the better the flow of communication and information with diverse stakeholders through quality CSED. Therefore, the following hypotheses are derived:

H2: There is a positive relationship between board size and CSED quality.

4.6.3 Relationship between Board Meetings and CSED Quality

In process of measuring the effectiveness of board, the frequencies of annual meetings by board members play a vital role. According to Chen, Firth, Gao, and Rui, (2006) the number of board meeting could be seen as the persistence and watchfulness of board in discharging their functions and duties as monitoring mechanisms. This is in consistent with agency theory, which signifies that frequent meeting by board members is a sign of good and sound CGM (Khanchel, 2007). According to Brick and Chidambaran (2010) the more the firm efficiency in setting the number of its board meetings, the better the control of agency costs. That means, board activities if represented by frequency of meeting, affects the decision of the board that perform as an active watching mechanism in controlling the conflict that may arise from agency (Xie et al., 2003). This is because, an increase in monitoring mechanism is expected to reduce information asymmetry in addition to reduction of agency costs, which will in turn increase disclosures (Chou et al., 2013). In that regards, is

recommended that the frequency of meetings by boards should be encouraged in the events of persistent monitoring and control is needed for disclosure improvement (Shivdasani & Yermack, 2014; Vafeas, 1999).

In line with stakeholder however, having board meetings frequently would improve the effectiveness of the board (Conger, Finegold, & Lawler, 1998) in addition to its ability to tackle interest of various stakeholders of an organisation, thus, this could impact disclosure positively. According to Hoque, Islam and Azam, (2013) frequent board meetings would enhance communication among directors and that would facilitate good distribution of responsibility and the assignments of committees, which lead to increase in effective decisions of board and increased transparency among the stakeholders (Akhtaruddin & Haron, 2010). Some scholars argued that frequency of board meetings could improve the quality of reporting in addition to the to its positive impact on disclosure (Chobpichien, 2008). Furthermore, a board that meets frequently mostly concentrates on social and/or environmental issues among other issues. Consequently, the lower the number of board meetings the high chance that board effectiveness could not be compromised. According to Demb and Neubauer (1992) lower board meetings frequency affects the boards negatively on their mission for building the strength and effort of an organisations collectively.

There were evidence empirical findings on board which provide those points that are responsible for the effectiveness of board among which board meetings is included (Berghe et al., 2004) even though it was not, on the aspect of CSED research,

previously addressed. However, Laksmana (2008) conducted a study on board meetings and found that, the more the meetings of the board the high the chance of transparency of an organisation. In other words, there is sufficient evidence of positive relationship between the frequency of board meetings and voluntary disclosure (CSED inclusive). Nevertheless, in their analysis, Cormier et al. (2010) found no evidence of relationship between board meetings regularly and voluntary CED. Similarly, Nelson, Gallery, and Percy, (2010) established an insignificant association among the frequency of board meetings and the nature of, including its extent, executive stock option disclosed in the financial reports of firms in Australia.

Considering the argument established from the literature above, it could be argued that, the frequency of board meetings regularly, has direct bearing on board watching, improves the effectiveness of board, stimulates transparency, enhances and straightening the stakeholder's relationship, reduces conflict between the stakeholders and finally decreases information asymmetry. This could be done by provision of additional time in order to address social and/or environmental issues which in turn promote the quality of disclosure. It is therefore argue that, the boards of directors who increase the frequency of their meetings have high chance of provision of quality CSED. In line with this argument, this study, anticipates that the frequency of board meetings could impact positively on CSED quality. Therefore, the following hypothesis is formulated:

H3: There is a positive association between the board meetings and CSED quality.

4.6.4 Relation between Directors' Qualifications and CSED Quality

The qualification of directors on board, represented by the education of the directors, could affect the disclosure and behaviour of reporting firms. Some researchers like Gray (1988) emphasised that education is one of the major ingredients of the system of accounting and might reflect on the disclosure of accounting issues. For example, a manager that is highly educated will certainly understand various stakeholders interest due to his exposure that arise from educational background (Gul & Leung, 2004; Welford, 2007). In their study Merchant, Chow and Wu (1995) claim that, a manager or director who obtained western education could implement new thinking in addition to values in an organisation which could impact positively to the disclosure of such organisation. Meanwhile Wallace and Cooke (1990) similarly maintained that the more the level of education of directors in a given organisation, the more the increase of responsiveness on corporate organisational accountability, thus improve on disclosure and this is supported by Bushee and Noe (2000).

According to Haniffa and Cooke (2000) those directors that have accounting and/or business qualification as their background of study could report information adequately than those who do not have such qualifications. In addition, Peters and Romi (2014) disclosed that the qualification of directors in terms of education could play a significant role in their attitude and methodology on CED be it re-active or as pro-active in their decision. Thus, this study argued that, the more the percentage of

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directors with accounting, finance and/or business, or any combination of both background, the more the improve on CSED quality. Even though research on this area is at primitive stage however, there is a difficulty on establishing empirical evidence on the education of directors and the quality of CSED. Nevertheless, Haniffa and Cooke (2000) conducted a study in Malaysia but on voluntary disclosure generally and established an insignificant association, Barako, Hancock and Izan (2006) also found the relationship between the number of board members with accounting and/or business with voluntary disclosure to be positive. Therefore, this study prose that:

H4: There is a positive association between the number of directors with accounting, finance and/or business qualifications and CSED quality.

4.6.5 Relation between Board Committees and CSED Quality

One of the key elements of CGM is the board of directors. It plays a significant role in corporate governance among which is the delegation of duties to board committees for more efficiency and effectiveness. Researchers are on the view that, the committees set up by board be it audit, risk management, compensation, remuneration and even on social or environmental or both (if there is any) could be an indication of seriousness by board members on corporate responsibility be it social or environmental responsibility. The committee is expected to strike the balance on the variation of interests among the stakeholders and their respective

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organisations (Liao, Luo, & Tang, 2015). Among other things, the committee is normally responsible for look over the overall issues which include CSER; identification of non-financial risks including its management related risk; establishment standards in addition to policies; watching the compliance of standard and policies of the firms on disclosure which include CSER; studying and adjustment of organisational disclosure on CSER and supervision of humanitarian activities (Mackenzie, 2007). Other researchers assert that, the presence of committees ought to deliver a message to the organisation about the interest, reputation and the significance of disclosure which could improve social and environmental matters (Carter, Simkins, & Simpson, 2003; Devilliers et al., 2011; McKendall, Sánchez, & Sicilian, 1999) including environmental disclosure practices (Cowen, Ferari, & Parker, 1987).

Consistent with agency theory, Peters and Romi (2014) documented that the committees will carry out positive tactics which have positive impact on environmental issues. The committee could play a vital role on identification and control of the determinants of the major social and environmental apprehensions which could influence the entire performance of an organisation (Frias-Aceituno, Rodriguez-Ariza, & Garcia-Sanchez, 2013). Thus, any failure to have these committees essential could lead to a decrease in social and environmental responsibility role which may undermine shareholders' long-term interest (Orlitzky, 2008). Furthermore, companies with more committee tends to reveal enough on environmental details than those who does have less, since the committee will ensure

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that the management of the organisation establish accountable method of reporting system via an organised and planned disclosure guidelines which include environmental disclosure coupled with its related recommendations. Consequently, the more the committees in firms the more the effectiveness and watching mechanisms for enhancement of disclosure include CSED in relation to its stakeholders (Michelon & Parbonetti, 2012). This is in line with some researchers whose sees board committees as a tool of board efficiency and effectiveness, which is the more the boards the more the effectiveness of the board (Cohen et al., 2014; Engel et al., 2010).

Nevertheless, from the stakeholder point of view, provide that, the presence of committees shows a commitment on planned attitude of an organisation towards stakeholders interest (Michelon & Parbonetti, 2012; Ullmann, 1985). The committee most at time among other things ensure good and quality of both policies and regulations of firms in respect of disclosure which include both social and environmental disclosure and this is coupled with the fulfilment of stakeholders expectations (Michelon & Parbonetti, 2012; Peters & Romi, 2014). Likewise, Hajkowicz (2008) insist that, the presence of committees promotes public enlightenments among the stakeholders which in turn, shows how strong is the governance of the board on disclosure hence, could be positively linked with the CSD and/or CED quality.

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There are a lot of difficulties on finding some empirical studies on the association among the presence of committees include CSER and CSED. For instance while, McKendall et al. (1999), Michelon and Parbonetti (2012) could not establish an association between the presence of social responsibility committee and disclosure, Peters and Romi (2014) reported a positive relationship between the CER committee presence and CED among other committees. In addition, Hassan and Ibrahim (2012) documented a positive linked between the presence of committees and quantity and the quality of CSD.

Due to the literature establishment on the subject matter however, in line with the agency and stakeholder's theory, this study argue that the presence of committees of at least three, could monitor and address the conflicting interest among the stakeholders of an organisation through the board effectiveness. Therefore, this study argued that, the more the presence of committees, the more the CSED quality. Thus, this study formulates the hypotheses:

H5: There is a positive relationship between the board committees and CSED quality.

4.6.6 The Relationship between Audit Committee Independence and CSEDQL

Audit is a process of confirmation of accountability and compliance of both financial and non-financial procedures couple with due process of an organisation which also

portray transparency in such organisation (Choi, Kim, Kim, & Zang, 2010; Goodwin-Stewait & Kent, 2006). For proper accountability and compliance, many organisations form a committee of auditors that will ensure compliance and transparency. This committee of auditors is one aspect of governance mechanism that monitor disclosure of an organisations which include CSED (Goodwin-Stewait & Kent, 2006; Weir, Laing, & McKnight, 2002). The said committee is in charge of the procedures of reporting standard of financial and non-financial issues on an annual report of companies (Abbott et al., 2004). The committee may comprise of both executive and non-executive directors. The ratio of non-executive directors in the committee indicates the level of independency of the committee (Lennox & Park, 2007). There is also believe that the more the audit committee independence the more the performance and effectiveness of the committee (Xie et al., 2003). This is because, the committee could performed better to accomplished its objectives, hence better transparency and increase in standard (Abbott et al., 2004). For avoidance of doubt, Robinso and Owens-Jackson (2010) disclosed that, any committee that is effective could contribute positively for the achievement of the board in discharging its responsibilities.

From the stakeholders and agency perspective however, it could be argue that committee of audit could play a significant role on proper financial reporting system, since it is governance mechanisms that monitor the functions of audit (Piot & Thornton, 2009),this in turn reduce the cost of agency (Ho & Wong, 2001) thereby, promotes the disclosure quality and proper reporting guidelines (Cotter & Silvester,

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2003; Nelson et al., 2010). Consequently, the committee of auditors should be able to develop the standard and quality of the information movement among the managers, shareholders and the stakeholders (Barako et al., 2006). It is also expected to promote transparency via the credible information so revealed (He, Labelle, Piot, & Thornton, 2008), thus maintain and protect the interest of stakeholders. Moreover, Forker (1992) believed on the independence of audit committees, this is because, it possibly will make internal control more effective thereby the quality of the organisation disclosure will definitely improve.

Limited studies empirically could be in existence so far regarding the connexion between the independence of audit committee and CSED quality. Nevertheless, some studies empirically shows that there is positive relationship between audit committee and the disclosure but voluntary disclosure (Barako et al., 2006; Ho & Shun Wong, 2001). In the same way, O'Sullivan, Percy and Stewart (2007) disclosed that the presence of audit committee, the independence of such committee as well impact the forward looking details of disclosure positively. However, in terms of stock option statutory disclosure of the executive, Nelson et al. (2010) investigate the relationship between the two in Australia and documented positive association between them.

For the reason specified above, it could be deduced that, independence of audit committees could reduce the conflicts that arise from agency, control of large interest of stakeholders and improvement on the credibility of disclosure in terms of

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practice and procedures. Therefore, this study argued that audit committee independence is positively related to CSED quality. Thus, the hypothesis is formulated as:

H6: There is a positive relationship between audit committee independence and CSED quality.

4.6.7 Non-Executive Directors Ownership as a Moderator

Researchers from different various field of disclosure argued that the ownership of a firm is expected to eradicate agency problems that exists between managers and shareholders of the company (Anderson, Mansi, & Reeb, 2003; Dey, 2008; Jensen & Meckling, 1976; Singh & Davidson III, 2003). For example, Ang et al. (2000) suggested that, even though non-executive directors are expected to be the highest controlling mechanism on the board, their roles would be more effective if they have significant shares in the company. Thus, the more the shares held by non-executive directors of a firm, the more they monitor the firms' management and performance thereby, resulting into increase on disclosure (Conyon, 2000; Zattoni & Cuomo, 2010). According to Mohd, Ghazali and Weetman (2006), the larger the amount of equity interests by the non-executive directors the greater the incentive for the directors to monitor the management. As long as the stakeholders rely on published financial statements, in the case of this study refer to CSED, non-executive directors with stock in the firm are expected to be more serious in ensuring

that the quality of the disclosure is high, so that it will be valuable to all the stakeholders in addition to the resolution of conflicts among the firms and stakeholders.

According to Pergola (2005), the directors on board with high shares have more influence on internal control systems, under audit committee watch. Therefore, the more the audit committee effectiveness, the more the board will monitor the CSED (Akhtaruddin & Haron, 2010), that served as an important role of the board.

In the empirical studies by Chau and Gray (2002) documented that board ownership is positively and significantly connected with disclosure. In addition, Akhtaruddin et al. (2009) disclosed a significant positive association between shareholdings owns by directors on board and disclosure of listed firms in Malaysia. Other studies found that board ownership is connected to a higher chance of conservatism in accounting (Ahmed & Duellman, 2007; Lara, Osma, & Penalva, 2007), and positively associated with CED (Brammer & Pavelin, 2006). In addition, the independent directors promote the effectiveness of audit committee for reduction of information asymmetry and this is done through decreasing the negative impact of director's ownership on voluntary disclosure (Akhtaruddin & Haron, 2010).

Theoretically, non-executive director's ownership is expected to address stakeholders concerned and conflicts as postulated by stakeholder's theory since they paid more attention to financial disclosure which include corporate social and environmental

disclosure, this is in addition to the role it may play on CGM since effectiveness of the non-executive directors can reduce information asymmetry attributed with agency problems (Acerete et al., 2011). This is real as they have power to oversee financial reporting practice and procedures. The argument also reveal that they will have influence positively on executive directors on board, positive influence on board meetings by encouraging and attending meetings frequently, have positive influence on the qualification of directors, positive influence on presence of CER and finally, positive influence on the audit committee independence as discussed above. Thus, non-executive director ownership of a company increase disclosure practices in financial reporting. Since the non-executive director's ownership is an important element to ensure adequate oversight of managements' disclosure procedures and practice, hence the CSED enhancement, therefore it is hypothesized that:

H7a: Non-executive director's ownership moderates the relationship between board independence and CSED quality.

H7b: Non-executive director's ownership moderates the relationship between board size and CSED quality.

H7c: Non-executive director's ownership moderates the relationship between board meetings and CSED quality.

H7d: Non-executive director's ownership moderates the relationship between directors' qualification and CSED quality.

H7e: Non-executive director's ownership moderates the relationship between board committees and CSED quality.

H7f: Non-executive director's ownership moderates the relationship between audit committee independence and CSED quality.

4.7 Summary of the Chapter

The chapter discussed and established the theoretical framework as well as development of hypotheses. The chapter also presents the framework of the study. Hypotheses are also developed base on the objectives of this study. Based on this, the next chapter is chapter five which is research methodology.

CHAPTER FIVE

RESEARCH METHODOLOGY

5.1 Introduction

Previous chapter discussed and established the hypotheses in line with the objectives of this study. Considering the main objective of this study, therefore, this chapter discussed the methodology, the research design, the population and the sample of the study. In addition, the chapter defined and discussed the measurement of all the variables. Technique of data analysis, expression of model and model specification also are detailed in this chapter.

5.2 Research Design

According to Toledo-Pereyra, (2012) research design is a strategy that involve gathering of data for examination in line with the objectives of the research. There are so many research design it depend on the objectives of the study (Stapleton, 2005). Among which are: survey research design, experimental research design, case study research design, descriptive research design, historical research design and correlational research design among others (Nieveen et al., 2006). However, this study utilized descriptive and correlational research design to examine the relationship between CGM and CSED quality with non-executive director's ownership as a moderator. This study used documented data extracted from annual

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financial report from Nigerian Stock Exchange (NSE). The choice of the design is as a result of justifiable research on investigational purpose while using secondary data.

5.3 Method and Sources of Data

The type of data to be used on CGM and CSED is secondary type. This is extracted from annual financial report of listed firms in NSE. This is considered for a period of five years, ranging from 2010 to 2014 inclusive. The selection of this period is as a result of the following. The period is a post financial crisis period where so many companies collapse. The period is also a period of merging so many financial institutions like banks in Nigeria (Central Bank of Nigeria, 2013). In addition, specifically, the time frame was the time of stakeholder's agitation against social and environmental hazard as reported by the Nigerian Minister of Environment. Furthermore, the period was where so many firms paid more attention to CGM practices in order to protect the interest of all the parties including stakeholders (Central Bank of Nigeria, 2013). At the same time, it was the period that regulatory authorities in Nigeria carried out so many reforms in order to strengthening the firm's practices to avoid failure from the past. In addition, it was the period where the ministry of environment showed more concern on CSED in Nigeria.

5.4 Population of the Study

The population of the current study composes of all listed firms in Nigeria. In other words, all firms listed on NSE. This is because; the firms are required by law to publish their financial statement annually. As at 31st December, 2014, the population of the listed firms in Nigeria was 203 companies. The listed companies are composed of financial and non-financial companies. These include consumer goods, industrial goods, oil and gas industries, financial and services, telecommunication industries, natural resources industries, conglomerates industries, construction/real estate industries, healthcare and agricultural industries as seen in Table 5.1

Table 5.1
Population of the Study

Serial No.	Industries	Number	Available
1	Agricultural	5	3
2	Conglomerates	8	5
3	Construction/Real Estate	10	5
4	Consumer Goods	27	18
5	Financial Services	58	28
6	Healthcare	14	5
7	Industrial Goods	24	10
8	Information/Communication	12	4
9	Natural Resources	6	2
10	Oil and Gas	14	7
11	Services	25	13
	Total	203	100

Source: Nigerian Stock Exchange

The inclusion of finance is as a result of the social responsibility issues. The issue of CSR involved all the firms irrespective of the type of firms provide it operates in the

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environment. In addition, it is argued that all the companies in Nigeria irrespective of its mode of operation pollute the environment. This is because in Nigeria, there is no 24 hours electricity, thus, compelling the companies to use generators for their operations to be successful and the generators also emit carbon which destroy the atmosphere and it is not environmentally friendly. Unless a firm is not listed in NSE in between 2010-2014 or absence of data on CGM and CSED in the years under consideration, all listed firms were considered. Out of the 203 mentioned only 100 have financial statement available from 2010 to 2014. Therefore, this study utilised the available 100 companies that have their financial report at the time of conducting the research.

5.5 Data Collection and Measurement Process

The annual reports of the companies were accessed from Nigerian Stock Exchange Commission office in Abuja capital city of Nigeria. This is because majority of the companies have limited softcopies thus, not fully available. The period of the data collection was nine months and all the variables measurement were obtained from the annual reports of the companies.

The dependent variables, which is the quality of CSED, is measured on three steps as follows; i- an organised checklist driven from GRI guideline as quality indicators are constructed; ii- after the checklist then the coding system which is _0' and _1' is used; iii- finally, the disclosure quality of the social and

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environmental information is calculated on content analysis basis with a simple un-weighted average formula. Thus, an index is formulated from the three steps above which are used as measurement for quality of CSED in this study. This is in line with GRI guideline using annual financial reports of listed firms in Nigeria.

5.5.1 Content Analysis

The content analysis is a major technique in social sciences studies especially in disclosure issues (Forman & Damschroder, 2007). It is seen as a technique in research which make reproductable as well as effective interpretations extracted from data and in accordance with their context (Harwood & Garry, 2003). Thus, accounting discipline is not in isolation as content analysis is generally utilised in either determining the measurement of social disclosure and/or environmental disclosure (see Cormier et al., 2005; Gray et al., 1995; Haniffa & Cooke, 2005; Magness, 2006). According to Duriau, Reger and Pfarrer (2007) definition of content analysis, data is said to be gathered through codification of qualitative information into quantitative form of scaling which could be allow for inferences.

It has so many advantages among which objectivity and reliability are core in addition to the validity and consideration of the volume of the data used. One of distinguished characteristic of content analysis is that information is measured and coded in a systemic and reliable way (Krippendorff, 2004). White and Marsh (2006) describe content analysis method of measurement as the most objective form of

qualitative information measurement. In addition, Campbell (2003) revealed that for proper quality measurement, content analysis is recommended due its numerous advantages over other methods.

5.5.2 Companies' Annual Reports

This is generally a document formally available annually produced by firms that serve as message and communiqué for investors, stockholders and customers. This is also served as a sampling unit. Due to its content however, majority of CSD and CED studies utilised the annual report for their analysis as a source of information (Gibson & O'donovan, 2007; Gray, 2010). According to Zahra, Neubaum, and Huse (1997) an annual report is a secondary source of data. Thus, an annual report is utilised in this research to survey the CSED in Nigerian listed firms for the period of five years ranging from 2010 till 2014. The years under considerations is attributed to some changes on CGM made by Nigerian SEC. In addition, it is the years where the Nigerian Ministry of Environment complained on firms social and environmental issues. The period is also post financial crisis period where so many companies collapsed. The period is also a period of merging so many financial institutions like banks in Nigeria (Central Bank of Nigeria, 2013). At the same time, it was the period that regulatory authorities in Nigeria carried out so many reforms in order to strengthen the firm's practices to avoid failure learned from the past.

5.5.3 Checklist of the Dependent Variable

Disclosure checklists are usually extensive that are disclosed in annual reports of firm. A checklist which includes expected social and environmental specifics information is usually prepared based on prior research. This has extensively been confirmed in CSD and/or CED practices (e,g Berthelot, Cormier, & Magnan, 2003; Clarkson, Li, Richardson, & Vasvari, 2008). However, GRI checklist is utilise by the current study (Global Reporting Initiative, 2011). Consequently, this study identified operational measures of GRI guidelines which will help in covering CSED in the annual reports. See Table 5.2 for the checklist as extracted from GRI (G3) 2011.

Table 5.2
Social and Environmental Checklist

	Checklist	CODE	No. of Items		Checklist	CODE	No. of Items
ENVIRONMENTAL CHECKLIST	Materials	EN1 EN2	2		Training and Education	LA10 LA11	2
	Energy	EN6 EN7	2		Diversity and Equal Opportunity	LA13	1
				Human Rights	Security Practices	HR8	1
					Indigenous Rights	HR9	1
				Society	Community	SO1	1
	Products and Services	EN27	1		Corruption	SO3 SO4	2
	Transport	EN29	1		Anti-Competitive Behaviour	SO7	1
	Overall	EN30	1				
	Sub-Total 1		7		Compliance	SO8	1
SOCIAL / **Labour Practice Decent Work**	Employment	LA1 LA2 LA3	3	**Product Responsibility**	Customer Health and Safety	PR1	1
					Product and Service Labelling	PR5	1
	Occupational Health and Safety	LA6 LA7 LA8 LA9	4		Marketing Communications	PR6	1
					Customer Privacy	PR8	1
					Compliance	PR9	1
					Sub-Total 2		22
					Total (Sum of Sub-Total 1&2)		29

Source: GRI-G3, 2011

Table 5.2, is the social and environmental checklist extracted from GRI-G3 2011 guideline. The code is for each of the items under social and environmental checklist. For example, environmental check list has 7 items coded from EN1 to EN30. Where EN stand for environmental checklist. Meanwhile, social checklist is categorized into four. These are Labour Practice and Decent Work, Human Rights, Society and Product Responsibility with checklist of fourteen items ranging

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from LA1 to LA14, nine items from HR1 to HR9, eight items from SO1 to SO8 and nine items from PR1 to PR9 respectively. The items for environmental and are carefully selected to suit the Nigerian situation as some of the checklist are not recognized in Nigerian corporate organisations.

After carefully studied the GRI guideline with full consideration to Nigerian context, therefore, the study arrived at total checklist of 29. This is because, other items are not suitable to Nigerian context. For example, Nigeria is not involved on the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally which is in the GRI guideline and checklist. This can be attributed to the fact that, the country consumed and not produced, therefore, the condition set internationally is not relevant to Nigeria context, but for those countries that produce and export and not import which is the case of Nigeria.

5.5.4 Process of Coding

The study employed coding process which assigned a value on each of the social and/or environmental disclosure checklist found in the annual report of the listed firms in Nigeria. The coding captured all the information as identified in the disclosure, thus, a value is then assign to the items for meaningful analysis (Campbell, 2004). The decision for environmental disclosure items is based on performance indicators developed by GRI (GRI, 2011). This is because, an organised decision processes improve the objectivity and reliability of the study, therefore,

allow for replication by other researchers as explained by Krippendorff (2004). One of the methods of measuring content analysis is scoring system based on checklist (Al-Tuwaijri et al., 2004). Others include counting number of words (see Wilmshurst & Frost, 2000), counting number of sentences (see Milne & Adler, 1999; Jose & Lee, 2007) and taking the proportions of pages (Gray et al., 1995; Guthrie & Parker, 1989).

This study however, employs scoring system based on GRI-checklist, in which a scale of coded items is used. The reason for the use of such scale is because the method suits the study purposes than counting of words, sentences or proportion of pages (Cormier et al., 2010).

5.5.5 The coding of CSED Quality

The quality of social and environmental disclosure is coded using checklist derived from GRI guideline as earlier stated. To be in consistent with Clarkson et al. (2008) and Cormier et al. (2004) approach, CSED quality in this study is define in line with information acknowledged by GRI guideline for each of the social and environmental indicator, and the rating of the quality is allocated as 0 = nondisclosure (represent non-disclosure); and 1 = disclosure (represent disclosure) (Brammer & Pavelin, 2008; Clarkson et al., 2008). It can be argued that the information above may improve stakeholders' perspective, hence, increased the credibility of a firm's reporting.

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5.6 Measurement of CSED Quality and their Indices

The disclosure index is derived from the checklist for the quality of total CSED. These indices mostly is applied in accounting studies, especially those researches involve financial reports. In getting the indices it comes out with single figure as a summary indicator which could be the entire contents of firm's reports or a specific aspects such as CSED (see Coy & Dixon, 2004; Hooks, Coy, & Davey, 2002). According to Haniffa and Cook, (2005) the index disclosure is a proportion of the actual scores assigned for disclosure in a given firm as percentage up to the expected maximum disclosure required.

There are two types of disclosure indexes which include weighted and un-weighted indexes (Cormier et al., 2005). According to Hooks, Tooley, and Basnan (2012) disclosure indexes is common in voluntary disclosure literature. They are weighted (see Cormier et al., 2005) and un-weighted (e.g Ghazali, 2007). According to Barako, Hancock, and Izan (2006) weighted index seem to be biased since it considered weight base on each category while un-weighted index is non-bias as it considered all the items of the same weight simply because, to give weight to all the checklist is not justifiable as one cannot differentiate them on their importance, thus, a values of ―0‖ and ―1‖ for disclosure and nondisclosure are normally used. Therefore, un-weighted index is deemed appropriate on this study thus, is used.

5.6.1 CSED Quality Index

This study formulates a framework for the analysis of CSED quality. Specifically, CSED quality is measured based on GRI (2011) guidelines, on an allocated scale of zero as non-disclosure and one for disclosure. After consideration of scoring scale, a summation of quality score is awarded to CSED in the checklist. This is done by summing the total scores available in the disclosure of the firms and divided by total expected score which is 29 in the case of this study. Hence, total CSED quality index is calculated as the proportion of total available scores attributed to the maximum scores which a firm could earn to meet up the quality of CSED.

Therefore, CSED quality index of a firm is calculated using the equation below:

$$CSEDQ = \sum \frac{SEQ}{MX\,DQ}$$

Where: -

CSEDSQ = Corporate Social and Environmental Disclosure Quality,

SEQ = Social and Environmental Quality Scores,

MX DQ = Maximum disclosure quality scores for this study is 29.

5.6.2 Validity of CSED Quality Measurement

According to Joseph and Taplin (2011) there are need for various tests to assess the validity of the index of any disclosure. The validity means the instrument which is

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used for the measurement of a concept represent the intended concept (Polit & Beck, 2006). There are two types of validity disclosure indices which are content validity and construct validity.

According to Saitta, Raphael, and Smith (2007) content validity guarantees on the measurement as a true representation of the concept in question. Meanwhile Sekaran (2006) disclosed that, for construct validity, correlation analysis is a proper method to be applicable in this scenario. Therefore, due to the fact that correlation is common in previous studies on disclosure for validity analysis (Botosan, 1997; Cheng & Courtenay, 2006; Richardson & Welker, 2001), it will proper for this study to also employ such for consistency. Therefore, correlation analysis is employed on the total CSED variables. In line with this, the correlation between the indices of CSED quality and all independent variables is investigated as seen in Table 6.3.

5.7 Definition of Variables and Measurement

The following portrays the variables definition and their measurement from the quality of CSED and CGM relationship.

5.7.1 Social and Environmental Disclosure Quality

Social and environmental disclosure is define in this study in line with GRI, (2011), as the disclosure of labour practice and decent, human right, society and products,

material, energy, water and emission on the company's annual financial reporting. Quality has different meanings to different people. Gao (2010), argues that the quality definition should be set by standard setters or professionals on established frameworks so that it portray the image of quality in the eyes of the users of the disclosure. Consistent with Clarkson et al. (2008) approach, CSED quality is measured in line with GRI guideline.

Disclosure quality is defined in terms of their quantification nature, be it quantitative and declarative (Raar, 2007) which include the monetary and non-monetary disclosure, declarative disclosure is expressed in qualitative terms or descriptive in nature. The dependent variable, CSED quality, is measured with un-weighted disclosure index that is established in line with GRI to assess the informational content. Hence, total CSED quality index is ascertained as the proportion of total quality score obtained from the firms to total available scores awarded.

5.7.2 Corporate Governance Variables

The governance variables is compose of board independence, board size, board meetings, directors' qualifications, board committees and the independence of audit committee. Meanwhile the moderating variable is non-executive director's ownership while corporate characteristics include profitability, industry and size.

5.7.2.1 Board Independence

According to Ayuso and Argandoña (2009) board independence as an extent to which members of the board are dependent from firms' CEO currently. This is considered as outside directors in so many studies. That means they are not in any way part of managers of an organisation, (Laux, 2008). According to Lim, Matolcsy, and Chow (2007) the independent directors should be free from the usual activities of the company in line with management issues rather be a professional and a watch dog on an organisational management issues. In addition, Chen, Firth, Gao and Rui (2006) attributes their role to be the dissolution of agency conflicts that may arise from various interest of managers and shareholders which could be replacements of senior managers among others. Therefore, board independence is measured as the number non-executive directors to total number of board.

5.7.2.2 Board Size

According to Zahra and Pearce (1989) board size is refers to the total number of both executive and non-executive directors who serve on the board of an organisation. Hence, is measured by the total number of non-executive and executive directors on board.

5.7.2.3 Board Meetings

In this study board meetings is considered to be frequency or rate at which meeting is held annually as organised by the board. According to Sahu and Manna (2013) the number of meeting mostly shows how dedication and control of the board in discharging their duties and functions. Therefore, in consistence with Liu and Li (2008) the board meeting frequency is measured as the total number of meetings by firms annually (Liu & Li, 2008).

5.7.2.4 Directors' Qualifications

Directors' qualifications reflect the educational background of directors. This is seen in this study as education of the directors base on their various specialisations. Is said to be the background of the directors that has some consequences in accounting profession (Ismail, 2009). Consequently, education of directors could play a positive and significant role on CSED (Peters & Romi, 2014). This study used the measurement of directors' qualification as the total number of directors with accounting or business and/or finance qualification and any other related discipline.

5.7.2.5 Board Committees

The number of committees found on board is also an indication of commitment in to quality of disclosure (these include social and environmental) and the behaviour of

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an organisation with respect to disclosure (Cerbioni & Parbonetti, 2007; Upadhyay et al., 2014). According to Peters and Romi (2014) the presence of the committees could contribute on determination and identification of various issues on social and environmental disclosure of an organisation. As the board use to control and monitor the activities of the company in respect of social and environmental concerns which could be in the form of review of policies and reporting guideline and standards in line with the current challenges facing the organisation (Mackenzie, 2007). Therefore, board committee is measured in this study as ─1" if an organisation has at least three committees on board with ─0" if the organisation has less than three committees on board (Cerbioni & Parbonetti, 2007).

5.7.2.6 Audit Committee Independence

As one of the CGM, audit committees is seen as been responsible to oversee the reporting process of firms finance thereby confirming the objectives of the external audit conducted on a firm (Uzun, Szewczyk, & Varma, 2004). The said committee be duty-bound to assist the board on their role and responsibilities bound on them (Sharma, 2004; Weir et al., 2002). To be in consistent with Ayuso and Argandoña (2009) this study sees audit committee independence as the level at which the members of audit committee are not dependent on their chief executive officers (hence forth called CEO). It is also requirements set by Nigerian SEC that, firms must have more non-executive auditors on audit committee where by the Nigerian

SEC portray that, it determines the level of independency of the board or committee.

Therefore, the independence of audit committee is used as the proportion of non-executive directors in the committee. Table 5.3 is the summary of the variables, their definition and measurement.

Table 5.3
Operationalization of the Variables

Variables	Operational Definition	Measurement	Sources
Corporate Social and Environmental Disclosure Quality	CSED quality is define as the qualities of information identified by GRI guideline for social and environmental indicator specified in the GRI (2011) guidelines	Based on GRI social and environmental checklist, for each checklist, 1 represent disclosure and 0 non-disclosure. Finally, the total items disclosed divided by total possible items as identified by GRI checklist	Clerkson et al. (2008) and Cromier et al. (2004), GRI, 2011
Board Independence	Board independence is the number of non-executive directors which refers to outside directors.	This is the ratio of non-executive directors to total board of directors	Ayuso & Argandoña, (2009) ; Laux, (2008)
Board Size	Board size refers to the total number of both executive and non-executive directors on board	This is the total number of directors on board	Zahra and Pearce (1989)
Board Meetings	Board meetings refer to the frequency of meeting held by board members annually	This is the total number of meetings held in a year	Liu and Li, (2008)
Directors' Qualification	Directors' qualifications refers to the specialization in terms of education of the directors	This is the number of directors with business, accounting, finance and other related field background	Peters and Romi, (2014)
Board Committee	This is the presence of committees on board which include audit, risk, remuneration among others	This is measured as a dummy variable with the value of ─1" if the company has at least three committees and ─0" otherwise	(Cerbioni & Parbonetti, 2007)

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Variables	Operational Definition	Measurement	Sources
Audit Committee Independence	This is the degree to which audit committee members are not dependent on the CEO	This is a proportion of independent non-executive directors in the audit committee	Ayuso& Argandoña (2009)
Non-executive Director's Ownership	This is the stock own by non-executive directors among the board of directors.	This is the total shares of the non-executive directors.	Chau and Gray, (2010); Gul and Leung, (2004)
Corporate Size	This is the total monetary worthiness of a firm in terms assets size of the company	Corporate size is measured as total assets.	Brammer & Pavelin, (2008);Gul & Leung, (2004)
Industry	This is the type of the company seen as high profile industries and non-environmentally sensitive industries	This is measured as a dummy variable with the value of ―1" for environmentally sensitive company industry and ―0" otherwise.	Cormier et al. (2005); Patten, (2002)
Profitability	This is the profit yield annually from the operation of the company's business	The measurement is return on assets	Brammer and Pavelin, (2008)

5.7.3 Non-Executive Directors' Ownership

Non-executive director's ownership means the shares of the company that are owned by the non-executive directors (Jensen & Meckling, 1976). According to Mohd, Ghazali and Weetman (2006), the larger the amount of equity interests by the either executive or non-executive directors the greater the incentive for the directors to

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monitor the management. Thus, non-executive director's ownership is measured in line with previous studies as the total number of shares owned by non-executive directors of a firm (Chau & Gray, 2010; Gul & Leung, 2004).

5.8 Other Variables

The other variables of the study is composed of all the control variables which include size of the firm in terms of total assets, the type of industry as environmentally sensitive industries and otherwise and the profitability of the firms.

5.8.1 Size

The size of a firm is paramount in CSED studies, simply because, most of the companies that are considered large tend to put more resources on getting well trained employees or even trained the employee for a particular task like that of disclosure (Monteiro & Aibar-Guzmán, 2010). The size of the firm is seen as the total amount or value of the firm which many studies considered that as total assets of the firm (Monteiro & Aibar-Guzman, 2010; Peters & Romi, 2014). In line with agency theory, Jensen and Meckling (1976) disclosed that there is high possibility of agency costs as a result of large recruitment which could contribute immensely on disclosure. As a result, the theory foresees a positive association between CSED the size of firms. However, stakeholder theory insist on the size of firms determine the availability of information to be disclosed (Cowen, Ferari & Parker, 1987).

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Therefore, normally company size is measure as total assets (see Brammer & Pavelin, 2008; Gul & Leung, 2004; Monteiro & Aibar-Guzman, 2010; Peters & Romi, 2014). For the purpose of this study, corporate size is measured as total assets.

5.8.2 Industry

The type and nature of industry is use to be considered as contributor of CSED by firms. In line with Stakeholder theory, nevertheless, claimed that corporations functioning in an as environmentally-sensitive, also known as high profile industries, firms could disclose more information about their social and environmental activities than non-environmentally sensitive firms. The high profile industries also seen as environmentally sensitive firms are firms that have high tendency of polluting environment due to their operation through the release of high carbon emission, oil spillage, and high radiation in the environment among others. In this regard, environmentally sensitive firms are expected to disclose more social and environmental details than others (Cormier et al., 2005; Patten, 2002). The high profile industry include, oil and gas industries and natural resources industries. This is because, booth oil and gas industry and natural resources industries have high negative impact on the environment due to their operation in the community.

So many studies on industry type and the CED reported a significant positive relationship (see Brammer & Pavelin, 2008; Cormier et al., 2005; Pahuja, 2009). Thus, industry type is commonly measured as a dummy variable in previous

literature, (see Campbell, 2004; Reverte, 2009). Therefore, this study measured industry type as a dummy variable. This means ―1‖ is for environmentally sensitive firm and ―0‖ for others.

5.8.3 Profitability

Empirical evidence shows positive relationship between profitability and CED (Haniffa & Cooke, 2005. While, Ho and Taylor (2007) found negative relationship with some studies showing no association between profitability and CSD (Brammer & Pavelin, 2008; Michelon & Parbonetti, 2010; Peters & Romi, 2014). Base on the theoretical evidence, this study predicts positive association between profitability and CSED quality in Nigerian listed firms.

The measurement used by this study for profitability is return on assets (ROA) (see Brammer & Pavelin, 2008; Cormier, Ledoux, & Magnan, 2011; Lim et al., 2007) Therefore, profitability is measured in this study as return on assets.

5.9 Model Specification

The model below is formed to estimate the relationship between CGM and the quality of CSED as well as the moderating effect of non-executive directors‘ ownership on such relationship. Thus,

Model:

$$CSEDQL_{it} = \beta_0 + \beta_1 \, BI_{it} + \beta_2 \, BS_{it} + \beta_3 \, BM_{it} + \beta_4 \, DE_{it} + \beta_5 \, BC_{it} + \beta_6 \, ACI_{it} + \beta_7$$

$$NBO_{it} + \beta_8 \, BI_{it} \times NBO_{it} + \beta_9 \, BS_{it} \times NBO_{it} + \beta_{10} \, BM_{it} \times NBO_{it} + \beta_{11} \, DE_{it} \times NBO_{it} +$$

$$\beta_{12} \, BC_{it} \times NBO_{it} + \beta_{13} \, ACI_{it} \times NBO_{it} + \beta_{14} \, SIZ_{it} + \beta_{15} \, IND_{it} + \beta_{16} \, PROF_{it} + \epsilon_{it}$$

Where:

CSEDQL	= Total CSED Quality;
β_0	= Intercept;
β_1 **to** β_7	= Coefficient of the independent variables;
β_8 **to** β_{13}	= Coefficient of the interacting variables;
β_{14} **to** β_{16}	= Coefficient of the control variables;
ϵ	= Error term;
it	= Subscript for Panel Data
BI	= Board Independence;
BS	= Board Size;
BM	= Board Meetings;
DE	= Directors Education;
BC	= Board Committees;
ACI	= Audit Committee Independence;
NBO	= Non-executive director's ownership;
BI×NBO	= Interacting Term between Board Independence and Non-executive Director's Ownership;
BS×NBO	= Interacting Term between Board Size and Non-executive Director's Ownership;

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BM×NBO   = Interacting Term between Board Meetings and Non-executive

                Director's Ownership;

DE×NBO   =Interacting Term between Directors Qualifications and Non-

                executive Director's Ownership;

BC×NBO   =Interacting Term between board Committees and Non-executive

                Director's Ownership;

ACI×NBO   =Interacting Term between Audit Committee Independence and Non-

                executive Director's Ownership;

SIZ   = Size;

IND   = Industry;

PROF   = Profitability.

5.10 Model Statistical Tests

The tool of statistics used by the study is STATA simply because, STATA is more

effective in handling panel data in addition to the speed and compatibility (Newton et

al., 2010). This is used for performing the statistical analyses which include

descriptive statistics, correlations and multiple regressions.

5.11 Summary of the Chapter

The chapter expresses the research methodology of the study. In addition, the

descriptive research design that is used. Using secondary data, quantitative analysis

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methods is considered. The research required panel data, using content analysis for CSED quality. The variables measurement and their respective definition are explored. Finally, the study substantiates the need for content analysis method. The population, sample and the domain of the study is discussed. Furthermore, checklist of CSED items is developed in addition to the CSED indices. Therefore, the next chapter is devoted to data result and analysis on the relationship between CGM and the quality of CSED, along with moderating effect of the relationship by non-executive director's ownership.

CHAPTER SIX

RESULT AND DISCUSSION

6.1 Introduction

This chapter proceeds from previous chapter, which established the theoretical framework as well as development of hypotheses on the relationship between CGM and CSED quality. Therefore, this chapter discussed the trend of the disclosure, the descriptive statistics of the study, which include minimum value, maximum value, mean, standard deviation, skewness and kurtosis, the correlation and multicollinearity test. Others analysis discussed are the correlation and regression of the study. This is in addition to heteroskedacity, autocorrelation/serial correlation, linearity, OLS and FGLS of the model. This is to determine the estimation of the study that could explain the moderating effect of NBO on the relationship between CGM and CSEDQ.

6.2 Industries Classification of the Population

As earlier stated, the population of the current study composes of all listed firms in Nigeria which was 203 companies as seen in Table 6.1. Due to absence of data on CGM and CSED by some of the companies 2010-2014 therefore, out of the 203 mentioned earlier, only 100 have financial statement available from 2010 to 2014. Therefore, this study used 100 companies that have their financial report at the

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time of conducting this research. The percentages of the companies used are agricultural industries 3%, conglomerates 5%, construction/real estate 5%, consumer goods 18%, financial and services 28%, healthcare 5%, industrial goods 10%, information/communication 4%, natural resources 2%, oil and gas 7% and services 13%. As seen in the table, oil and gas industries is among the least which looks insignificant, thus, the study could not focus on oil and gas industries as earlier discussed. In totality, this implies that, the study used 500 observations.

Table 6.1
Classification of the Companies

Companies Classifications	Number of Companies	Available Companies	Percentage of Companies
Agricultural	5	3	3
Conglomerates	8	5	5
Construction/Real Estate	10	5	5
Consumer Goods	27	18	18
Financial Services	58	28	28
Healthcare	14	5	5
Industrial Goods	24	10	10
Information/Communication	12	4	4
Natural Resources	6	2	2
Oil and Gas	14	7	7
Services	25	13	13
Total	203	100	100

Source: Nigerian Stock Exchange

6.3 Trend of the Corporate Social and Environmental Disclosure Quality

Trend analysis is a presentation of movement of an event over time, which will permit the prediction base on the past data obtained (Gujurati, 2004). This means that for a study to perform trend analysis, therefore, time most be considered as it

will indicate the level of the product concerned over time. Going by the definition of Gujurati therefore, the first objective of this study could be addressed using the trend analysis. Recall the first objective of the study where it was stated to determine the trend of corporate social and environmental disclosure quality among Nigerian listed firms. Thus, Figure 6.1 shows the trend of the corporate social and environmental disclosure quality derived from the checklist of the Global Reporting Initiative for 100 listed companies from 2010 to 2014 inclusive.
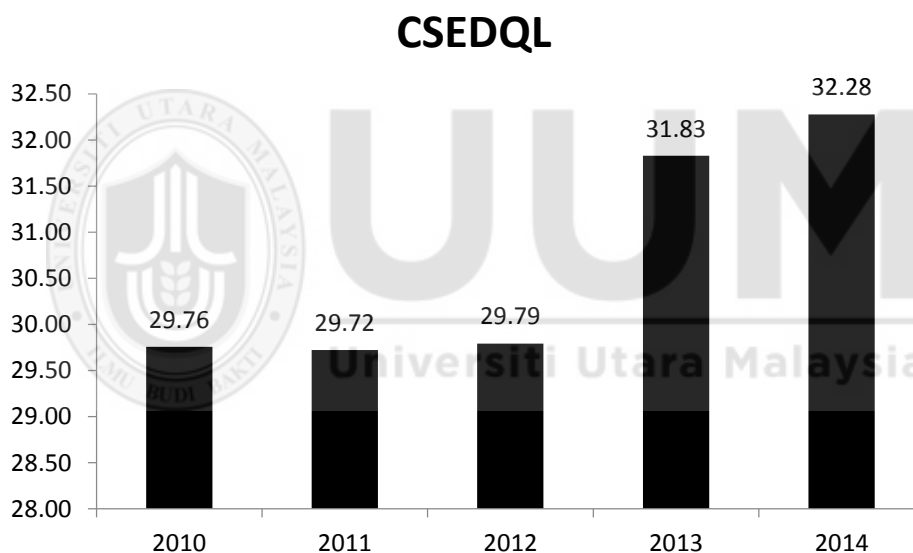
Figure 6.1
Trend of CSEDQL

As seen in Figure 6.1 above, the overall corporate social and environmental disclosure quality (CSEDQL) for the year 2010 is 29.76. This indicates the low disclosure in addition to the low quality of the said disclosure on social and environmental issues. Going by the year 2011 however, there is slide falls in the social and environmental disclosure quality. The CSEDQL decline almost

insignificant as the said disclosure value for the year stood at 29.72. Since 2011 CSEDQL is 29.72 therefore, there is a fall of 0.04 of the disclosure as compared to 2010 value. This could be attributed to the high level of vandalization of the firms' facilities in Nigeria by Niger Delta militants coupled with the insecurity in the North Eastern part of Nigeria. This is because, most of the firms in Nigeria are concentrated in the southern part where the militants operates and most at times the militants shut down the operation of the companies for quite sometimes which could definitely affect the profitability as well as the disclosure of the companies since it is only when the companies operate before it has information to report.

In a related development, the level of the disclosure is improved slightly in 2012 as it has an incremental value of 0.07 as compared to 2011. This is because, the value of CSEDQL as of 2012 is 29.79 while, that of 2011 is 29.72. This indicates a little improvement from the previous year. Comparing the two values, this study found that 2012 firms disclosed more in their financial reporting as compared to 2010 which has a disclosure value of 29.76.

However, in 2013 there is a sharp increase on the disclosure as the value rose from 29.79 in the year 2012 to 31.83 as of the year 2013. This has a difference of 2.04 as compared to the year O2012. This increase could be due to the stakeholders awareness, increase on the agitation by the stakeholder for example Niger Delta Militants in the South-South region of Nigeria as those places have highest companies due to their oil production and availability of raw materials.

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In the same vein, there is yet another sharp increase on the overall disclosure in the last year 2014 as the value rose from 31.83 in the year 2013 to 32.28 as at 2014. This means that there is a difference of 0.45 of the CSEDQL when compared to 2013. The increase could also be attributed to increase in stakeholder's awareness and the boost of the economy during the year. Comparing the disclosure of CSEDQL for the year 2010 and 2014 however, this study found an improvement on the overall CSEDQL. This is because, it started with a smallest value of 29.76 as at 2010 of the overall disclosure and end up with 32.28 of the total CSEDQL in the year 2014. On average, there is total increase of 2.52 disclosures as at 2014 as compared to 2010. Thus, this study can conclude that, the trend of the CSEDQL in Nigeria is improving over time. Going by this trend the study can predict more corporate social and environmental disclosure quality in nearby future.

6.4 Descriptive Statistics

The dependent variable of the study is corporate social and environmental disclosure quality represented in this study as CSEDQ while the independent variables include board independence (BI), board size (BS), board meetings (BM), directors qualifications in terms of education (DE), Board committees (BC) and audit committee independence (ACI). The moderating variables of the study are non-executive directors' ownership (NBO) and the control variables are firm size (SIZ), type of industry be it environmentally sensitive and otherwise (IND) and profitability of the company (PROF).

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The result shown on Table 6.2 shows the descriptive statistics on individual as well as the summary of the statistics on the explained and explanatory variables. This is considered based on the mean and the standard deviation. Others are the minimum and maximum values, the skewness and the kurtosis of the data including their respective standard errors. The major important of descriptive is to observe the behaviour of the data in terms of variation and the deviation from the mean which could result to comparison from what is obtained and what is required by the standard of law of an organization averagely (Lawless & Heymann, 2010).

In the case of this study, the standard guideline of the corporate governance is the one issued by Securities and Exchange Commission of Nigeria (SEC). The variables of this study include corporate social and environmental disclosure quality as explained variable while board size, board independence, board meetings, audit committee independence, board committees and qualification of directors as explanatory variables. Others include type of industry, firm size and profitability of the firms as a control variable while non-executive ownership is moderating variable of the study.

Table 6.2
Summary of Statistics

Variables	Min	Max	Mean	Sd	Skewness	Kurtosis
CSEDQL	0.1724	0.4483	0.3068	0.0496	-0.3432	2.8657
BS	5	20	9.6340	2.9293	1.0506	4.1604
BI	0.1667	0.9231	0.6506	0.1414	-0.4426	2.9645
BM	2	10	4.444	1.0663	1.5557	6.6297
ACI	0.5	0.8333	0.5647	0.0960	1.1097	2.8286
BC	2	7	3.4800	1.1710	0.5410	-0.3260
DQ	1	18	4.9000	2.2565	1.8799	8.8954
NBO	19969	184000	43200	157000	7.6991	7.6258
IND	0	1	0.3700	0.4833	0.5385	1.2900
SIZ	512634	3870000	2130000	5360000	3.7257	8.5946
Prof	-18400	1600000	748000	215000	2.1410	3.6124

Table 6.2 is based on sample size of 100 companies

For example the corporate social and environmental disclosure quality (CSEDQ) is ratio where its value falls from 0 and 1. It could also be expressed in percentage. Looking at the mean of CSEDQ presented in Table 6.2 therefore, it is clear that the averagely a listed firm in Nigeria has CSEDQ of 0.3068. This means that at least each firm reported CSED in its annual report by the said value and the quality of the report is 30.68%. The minimum value a firm report about its CSED is 0.1724 while the maximum value reported is 0.4483. Since the standard deviation with the value of 0.0496 is not far away from the mean, the value can be relied upon as it has low

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risk of being false. In addition, the skewness shows the distribution of the data in terms of favouring either the right or the left of the normal curve while the kurtosis shows the peakness of the said data (Oja, 2016). From the value of the skewness of -0.3432 obtained in Table 6.2 therefore, it means the data is expected to be normally distributed even though it shown as negatively skewed. The kurtosis value of 2.8657 as seen in Table 6.2 also means the peakness of the distribution is expected to be normal. This is in line with the so many studies which shows how distribution of the data should be expected through the use of skewness and kurtosis as testing the data could reveal whether the said data is skewed or the kurtosis is abnormal (Bai & Ng, 2005; Barato & Seifert, 2015; Blanca, Arnau, Lpez-Montiel, Bono, & Bendayan, 2013; Kollo, 2008; Maruyama, 2007; Ryu, 2011).

There is no any standard law regarding corporate social and environmental disclosure in Nigeria (Adelopo, 2011) therefore, the disclosure of CSED is voluntary. Thus, any company that disclose information regarding the social or environmental issues in Nigeria does that to enhance its relationship with the stakeholders of the environment as it has been predict by researchers that the more the disclosure the more the performance of the company and the less the conflicts between the company and the stakeholders (Yusoff, Mohamad, & Darus, 2013).

Looking at the board size (BS) as it is measured as discrete data where the minimum board members are 5 and the maximum board members are 20. The size of the board is expected to impact either positively or negatively on CSEDQ. Going by the mean

of BS as presented in Table 6.2 therefore, it becomes clear that on average a size of the board by the listed company in Nigeria is 9.634 approximately around 10 members on board. This means that at least each firm has 10 members on board which is in line with the standard set by SEC of Nigeria where it requires a company to have at least 2 members on board thus, averagely, a listed firm in Nigeria meet a minimum requirements regarding the size of their board. The standard deviation with the value of 2.9293 indicates an accommodated variation from the mean. In addition, the skewness shows the distribution of the data around the normal curve while the kurtosis shows the peakness of the said data (Oja, 2016). The skewness of the BS which has value of 1.05060 shows that, the data is expected to be normally distributed regardless of the signs of the distribution. This is in addition to the kurtosis of the BS with has value of 4.1604 as seen in Table 6.2 This indicate that, the peakness of the distribution of the data is expected to be normal as recommended by many researchers (Barato & Seifert, 2015).

In related development, the board independence (BI) is measured as ratio of non-executive members to executive members on board. The BI has minimum ratio of 0.1667 non-executive members and the maximum ratio of non-executive members is 0.9231. It is expected that board independence will have a positive impact on CSEDQ even though that depends on the ratio. The mean of BI as presented in Table 6.2 consequently, turn out to be obvious that on average a board independence of a listed company in Nigeria is 65% of the total board. This means that at least each firm has at least 65% non-executive members on board which is in line with the

standard set by the SEC of Nigeria, where it requires a company to have at least one Non-executive members on board thus, averagely, a listed firm in Nigeria meet a minimum requirements regarding the presence of non-executive members on board. Considering the standard deviation with the value of 0.1414 also reveals relatively normal variation from the mean (0.6506) this is in addition to the skewness of the BI where it shows a value of -0.4426 which shows that, the data are expected to be normally distributed regardless of the sign of the distribution. Moreover, the kurtosis of the BI with has a value of 2.9645 indicates the peakness of the distribution of the data is expected to be normal.

Another important aspect of CGM is board meetings (BM) and is seen as the frequency of meetings held annually by the board of a company (Al-Najjar, 2012; Brick & Chidambaran, 2010; Vafeas, 1999). Each firm in Nigeria has a minimum of 2 numbers of meetings and the maximum number of meetings is 10. BM is expected to improve CSEDQ as stipulated in this study. The mean of BM accordingly, shows that on average the meeting of board by listed company in Nigeria is 4.444. This means that at least each firm held a meeting 4 times annually which is in line with the standard set by SEC of Nigeria where it requires a company to have at least 2 meetings annually. On average, it can be said that a listed firm in Nigeria meet a minimum requirements in respect of the frequency of meetings. The standard deviation which has value of 1.0663 also reveals relatively normal variation from the mean. In addition, the skewness of the BM with the value of 1.5557 shows that, the data are expected to be normally distributed regardless of the sign of the distribution.

Moreover, the kurtosis of the BM with the value of 6.6297 indicates that, the peakness of the distribution of the data is expected to be normal as well.

Meanwhile the corporate governance of Nigeria is really concerned about the audit committee especially the number of non-executive directors on board as it was assert that the higher the non-executive on board the better the disclosure of both financial and non-financial aspect of disclosure (Ahunwan, 2002). The number of non-executive on audit committee board determines the independence of the said committee therefore is measured as ratio of non-executive members to all members on audit committee board (Ho & Wong, 2001). It requires by the Securities and Exchange Commission of Nigeria (SEC) that an audit committee should have at least one non-executive member. It is expected that audit committee independence (ACI) will have a positive impact on CSEDQ even though that depends on the ratio. As seen in Table 6.2 the minimum ratio of non-executive members in a firm is 0.5 while the maximum ratio is 0.8333. That means the requirements of the SEC of Nigeria is said to be mate since no listed firm in Nigeria has zero non-executive members on its audit committee. The mean of ACI as presented in the same table consequently, turn out to be obvious that on average ACI of a listed company in Nigeria is 56% of the audit size. This means that at least each firm has at least 56% of non-executive members on audit committee board which is in line with the standard set by SEC where it requires a company to have at least one non-executive members on audit board thus, averagely, a listed firm in Nigeria meet a minimum requirements regarding the presence of non-executive members on audit board. Considering the

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standard deviation with the value of 0.0960 also reveals relatively normal variation from the mean this is in addition, to the skewness where it shows a value of 1.1097. Moreover, the kurtosis of the ACI with the value of 2.8286 indicates the peakness of the distribution of the data is also normal as expected.

In addition, the corporate governance of Nigeria through its regulator SEC, mention the number committees a firm should have as the directors of the company should not exercise all their duties to the company alone rather to relegate their duties to committees. This is to enhance the disclosure of both financial and non-financial aspect. The number of committees determines the effectiveness of the firm therefore is measured as the committees on board. It requires by the SEC of Nigeria that a firm should have audit committee, remuneration committee, risk management committee among others. At least one committee must be presence in any listed firm in Nigeria as required by SEC of Nigeria. It is also expected that the more the committees on board the more the disclosure of both financial and non-financial which include corporate social and environmental disclosure (CSEDQ). As seen in Table 6.2 the minimum of committees a firm has is 2 while the maximum is 7. That means the requirement by the SEC of Nigeria is said to be mate since no listed firm in Nigeria that has zero committee. The mean of board committee (BC) as presented in the same table consequently, shows that on average a BC of a listed company in Nigeria is 3.48. This means that at least each firm has three committees on board on average. This is in line with the standard set by SEC where it requires a company to have at least one committee on board thus, averagely; a listed firm in Nigeria meets the

minimum requirements. In view of the standard deviation with the value of 1.171 also signifies an average normality in the variation from the mean. The skewness and the Kurtosis where they possess a value of 0.5410 and 0.3260 respectively, shows that the data is expected to be normally distributed regardless of the sign of the distribution.

In the same view, there is need for directors on board to have some expertise in terms of either accounting, finance or any other related discipline that is that shows a financial professionalism. This is required by the SEC of Nigeria that among the directors of the board there should at least one member that is professional in accounting or finance. In this study is called directors qualification (DQ) and is measured as the number of directors who have finance related discipline qualification on board. The maximum directors with such qualifications in this study are 18 members while the minimum directors who have finance related discipline is one. This means that the requirements of SEC is fulfilled since all listed firms in Nigeria has at least one director on board that is accounting or related finance discipline. It is also expected that DQ will have a positive impact on CSEDQ even though that depends on the number of those that have such qualifications among the firms. The average number DQ is 4.9. This means that at least each firm has 5 members on board who have accounting or finance related discipline qualification which is in line with the standard set by SEC where it requires a company to have at least one member on board with such qualifications thus, averagely, a listed firm in Nigeria meet a minimum requirements regarding the presence of members with

accounting or finance related discipline on board. Considering the standard deviation with the value of 2.2565 also reveals relatively normal variation from the mean. This is in addition, to the skewness where it shows a value of 1.8799. This also shows that, the data is expected to be normally distributed regardless of the sign of the distribution. Moreover, the kurtosis of the DQ with has a value of 8.8954 indicates the peakness of the distribution of the data is also normal as expected.

Since is required by law that at least there should be one or more non-executive members on board therefore, the decision is speak a lot as it will enhance transparency in terms of disclosure. Thus, if non-executive own shares in the company they are expected to be more vigilant as they have an interest in the said company. Even though is not required by law for non-executive member to own shares yet is improve the accountability and transparency of the company both financial and non-financial disclosure (Brammer & Pavelin, 2008). Therefore, the ownership of non-executive directors on board is measured as the total number of shares own by non-executive members on board. As seen in Table 6.2, it is clear that, non-executive member has a minimum of 19969 shares, while the maximum shares owned by non-executive members are 184000 (in millions). It is expected that non-executive members' ownership will improve corporate social and environmental disclosure quality (CSEDQL) even though that depends on the number of ownership. The mean of non-executive members' ownership as presented in Table 6.2 indicates that on average a non-executive members' ownership of a listed company in Nigeria are 4320(millions). This means that at least each firm has at least non-executive

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members' ownership of 4320(millions) shares on board. Considering the standard deviation with the value of 1500(millions) also reveals relatively normal variation from the mean this is in addition, to the skewness where it shows a value of 7.699091 shows that, the data is expected to be normally distributed regardless of the sign of the distribution. Moreover, the kurtosis of the non-executive members' ownership with has value of 7.2258 indicates the peakness of the distribution of the data also to be averagely normal.

Furthermore, the type of industry play an important role in determine the disclosure of environmental issues as those industries are categorized into two, environmentally sensitive industries and non-environmentally sensitive industries. There is expectation that, the environmentally sensitive should pay more attention to CSEDQ as the companies emit high carbon than their counterparts. For control measures, this study introduced the type of industry as a control variable. This is to enhance the disclosure of both financial and non-financial. There the type of industry could determine the disclosure of social and environmental issues that is CSEDQ. As seen in Table 6.2 the minimum of type is zero while the maximum is one. Zero represents non-environmentally sensitive industry while one represents environmentally sensitive industry. The mean of industry type (IND) as presented in Table 6.2 accordingly, shows that on average the companies are environmentally sensitive in nature since the value is 0.37. It is important to note that, the closer to zero for the mean of the industry type, the more the companies are said to be non-environmentally sensitive and if the mean is closer to one it means the companies

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averagely are environmentally sensitive in nature. In view of this, the standard deviation with the value of 0.4833 also signifies an average normality in the variation from the mean among the industries. The skewness and the Kurtosis with the value of 0.5385 and 1.2900 respectively, show that, the data is expected to be normally distributed regardless of the sign of the distribution.

Another important aspect of a firm is the size of the company. There are also expectations that the larger the size of the company in terms its assets the more the disclosure of on the financial and non-financial issues. The size (SIZ) in this study is introduced as control variable so as to improve the model of the study. As seen in Table 6.2, the size of the firm has minimum asset value of 512634 in Nigerian Naira while the maximum value own by firm in terms of size is 387000 (millions) Nigerian Naira since it is in monetary terms. It is expected that the size of a firm will improve CSEDQ even though that depends on the size. From the mean of the size of the firm as presented in Table 6.2 indicates that on average a listed company in Nigeria have assets with worth 213000 (millions) Naira value. The standard deviation with the value of 53600 (millions) also reveals relatively normal variation from the mean this is in addition, to the skewness where it shows a value of 3.7257 shows that, the data is expected to be normally distributed regardless of the sign of the distribution. Moreover, the kurtosis of the firm size with has value of 8.5946 indicates the relatively high peakness.

Consequently, profitability is an important aspect of a firm as it is a measure functional form of the firm. There are also expectations that the better the performance of a company in terms of profitability the more the disclosure of on the financial and non-financial issues. The profitability (PROF) in this study is introduced as control variable so as to improve the model of the study in addition to other variables of the study. As seen in Table 6.2, the profitability of the firm has minimum value of 18400 (millions) Nigerian Naira as loss since it has negative sign while the maximum value of profitability is 160000 (millions) Nigerian Naira since it is in monetary terms. It is expected that the profitability of a firm will improve CSEDQ even though that depends on the profit of that company. From the mean of the profitability of the firm as presented in Table 6.2 indicates that on average a listed company in Nigeria have profitability with worth 74800 (millions) value. The standard deviation with the value of 21500 (millions) also reveals relatively normal variation from the mean this is in addition, to the skewness where it shows a value of 2.1410 shows that, the data is expected to be normally distributed regardless of the sign of the distribution. Moreover, the kurtosis of the profitability with has value of 3.6124 indicates the high peakness of the distribution of the data. This is followed by the correlation of the study.

6.5 Correlation between CSEDQL and Independent Variables

This study considered correlation analysis as keen to detect if a relationship exist between Corporate social and environmental disclosure quality (CSEDQL) and

board size (BS), CSEDQL and board independence (BI), CSEDQL and board meetings (BM), CSEDQL and directors qualifications (DQ), CSEDQL and audit committee independence (ACI), CSEDQL and board committees (BC), CSEDQL and industry type (IND), CSEDQL and profitability (PROF), CSEDQL and firms size (SIZ) and finally, CSEDQL and non-executive directors ownership (NBO). Since zero correlation which indicates non-existence of relationship is a sing of no research in the area under consideration (Bewick, Cheek, & Ball, 2003; Garcia, 2011; Reimann, Filzmoser, Garrett, & Dutter, 2008). This is because there must be at least either positive or negative relationship between the dependent variable and each of the independent variables for a study to be considered worthy of research in the area of concerned where in the case of this study, the target is corporate social and environmental disclosure quality. From the study, CSEDQL is the explained variable while BS, BI, BM, ACI, DQ and BC are the explanatory variables. Meanwhile, IND, PROF and SIZ are the control variables of the study in addition to the moderating variable called NBO.

The correlational research is therefore, performed to identify a presence of a relationship between CSEDQL and each of the different CGM and corporate characteristics. This is done using product moment otherwise called Pearson's correlation. A parametric assessment is conducted to look at the needed connections in order to allow for other projections in respect of some of the factors under consideration. Moreover, correlation coefficients are also designed to testify the

strength and the direction of the disclosure measurement and to evaluate for multicollinearity where necessary.

It could also determine the measurements of the variables. However, despite the fact there is need for existence of relation among the explained and the explanatory variables however, the correlation among the independent variables ought to be zero (Gujarati, 2004) but this is almost difficult to achieve as correlation normally exist among variables provided they are quantities in nature, thus, the value of the correlation among the explanatory variables is expected to be weak, moderate or to some extend strong provided the coefficients of the correlation is not greater than 0.7 (Butt, Shahzadi, Sharif, & Nasir, 2007). Where the coefficient of the correlation among the independent variables is greater than 0.7 then, there is likely that multicollinearity exist among the independent variables hence, the assumption of regression is violated (Gujarati, 2004).

To achieved these issues raised in the above paragraphs therefore, a product moment or Pearson correlation coefficients for the listed firms that existed between the corporate social and environmental disclosure quality and each of the CGM attributes including the firms characteristics, the moderating variable for this research is conducted. This is because, product moment (Pearson) correlation is suitable for quantitative data analysis thus, where a measurement of a variable is numeric then this type of correlation is deemed necessary for the study (Vargha, Bergman, & Delaney, 2013). In addition, the significance of the said correlation is

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established in order to determine if there is sufficient evidence of the established correlation among the variables. The significances signifies the evidence for the existence of the correlation so established therefore, those correlation could not be disputed or did not happen by chance (Vargha et al., 2013).

Even though this study is expecting positive relationships especially between the dependent variable and each of the independent variables, a negative correlation is almost meaningless provided the correlation is not significant or the regression of the model is positive then this study will assume the regression model is more authoritative than the established correlation. This is simply because, correlation is more of descriptive whereas regression is inferential (Bewick et al., 2003). To infer means to make judgment therefore, regression result is more superior to the correlational one. Thus correlation matrix for the study is shown in Table 6.3.
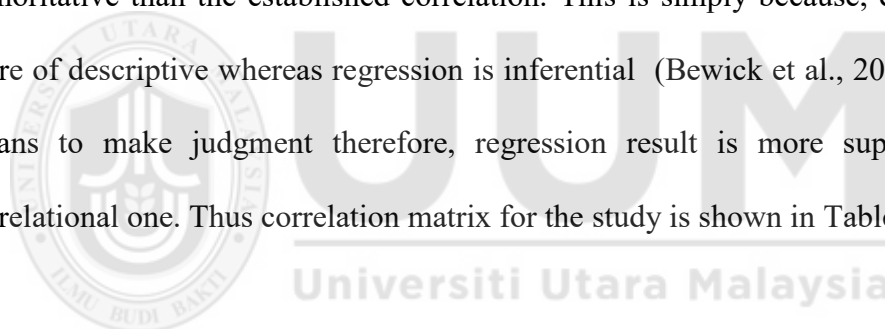
Table 6.3

Correlational Matrix

	CSEDQL	BS	BI	BM	ACI	BC	DQ	NBO	IND	SIZ	PROF
CSEDQL	1.0000										
BS	0.4889***	1.0000									
BI	-0.0159	-0.0239	1.0000								
BM	0.1726**	0.4236***	0.0663	1.0000							
ACI	0.0458	-0.1042**	-0.1754**	-0.0608	1.0000						
BC	0.1745**	0.3700***	0.1023**	0.1890***	-0.1856***	1.0000					
DQ	0.4123***	0.8269***	-0.0561	0.4432***	-0.1040**	0.3413***	1.0000				
NBO	0.0264	0.0008	-0.0469	0.0100	0.0082	0.0853*	-0.0124	1.0000			
IND	-0.0512	-0.1448**	0.0066	-0.0394	0.0004	-0.2069***	-0.1902***	-0.1214**	1.0000		
SIZ	0.2324***	0.4466***	-0.0649	0.2680***	-0.1053**	0.2033***	0.4738***	0.0749*	-0.1891***	1.0000	
PROF	0.0914*	0.1497**	-0.0507	0.0418	0.0006	0.1544**	0.1565**	0.0861*	-0.1933***	0.4487***	1.0000

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From Table 6.3 above the correlation coefficient between CSEDQL and BS is positive. This means that, CSEDQL and BS are going in the same direction whereby as CSEDQL is increasing, BS is also increasing even though is not in the same proportion. This is revealed from the sing of the coefficient of the correlation between the variables as seen in the table with a value of 0.4889. Since the value is going toward 0.5 in approximation, the correlation can said to be strong as the correlation (r) $\geq$ 0.5 (Vargha et al., 2013). The significant value of the coefficient is 0.000 thus, is said to be strongly significant at 1% level of significant. The found a sufficient evidence to support the said correlation between CSEDQL and BS as strongly positively correlated. Base on the argument raised before therefore, the study can be conducted on CSEDQL and BS since there evidence of correlation between the variables.

However, contrary to the expectation of this study, the correlation coefficient between CSEDQL and BI is found to be negative as seen in Table 6.3. This indicates that, CSEDQL and BI are going in the opposite direction whereby as CSEDQL is increasing, BI is decreasing even though is not also in the same percentage. This is discovered from the sing of the coefficient of the correlation concerning the variables. This can be seen in the table where is has a value of negative 0.0159. Unlike the previous correlation found, the value is less than 0.3 and is far away from 0.5 thus, the correlation can said to be weak as the correlation (r) $\leq$ 0.3 (Aminu Hassan, 2012). In addition, it is not significant. Therefore, there is no sufficient evidence to support the said correlation between CSEDQL and BI as weakly

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negatively correlated. As earlier stated in the discussion of correlation from the beginning, therefore, the study can be conducted between CSEDQL and BI since a correlation exists even though there is no evidence of correlation between the variables. What is more important is the fact that the correlation between the variables is not equal to zero. As discussed earlier, this is only considered if the variables are dependent and independent in nature as the case of this study, the dependent is CSEDQL and the independent is BI.

In the case of board meetings, the coefficient of correlation between CSEDQL and BM is positive. This indicates that, CSEDQL and BM are moving in the same direction whereby the more the CSEDQL the more the BM and the less the CSEDQL the less the later and this could not be in the same proportion. This is seen from the sign of the coefficient of the correlation between the two variables with a value of 0.1726. Since the value is going toward 0.3, the correlation can said to be weak as the correlation (r) $\leq$ 0.3 (Vargha et al., 2013). The probability value of the coefficient is 0.0001 thus, this is said to be weakly significant at 1%. This is an indication of sufficient evidence to support the said correlation between CSEDQL and BM. Thus, the study can be conducted between CSEDQL and BM.

In the same vein, the expectation of this study, the correlation coefficient between CSEDQL and ACI is positive as seen in Table 6.3. This indicates that the movement is in the same direction between CSEDQL and ACI whereby as CSEDQL is increasing, ACI is also increasing. This is discovered from the sing of the coefficient

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of the correlation for the variables under considerations. The value obtained is represented in Table 6.3 where it has a value of 0.0458. Like other previous correlation so established, the value of the correlation is less than 0.3 and is far away from 0.5 thus, the correlation can said to be weak as the correlation (r) $\leq$ 0.3 (Bach & Bach, 2005). Since the probability value for the coefficient is 0.3072 accordingly, this is said to be not significant at all level of significances ranging from 1% to 10%. Therefore, there is no sufficient evidence to support the said correlation between CSEDQL and ACI as moderately positively correlated. As earlier stated in the discussion of correlation from the beginning therefore, the study can be conducted between CSEDQL and ACI since a correlation exist between them. What is more important is the fact that the correlation between the variables is not equal to zero. As discussed earlier this is only considered if the variables are dependent and independent in nature as the case of this study, the dependent is CSEDQL and the independent is ACI.

In addition, the correlation between board committees and CSEDQL is also computed and the coefficient of correlation is positive as stipulated in Table 4.6 where it has a value of 0.1745. This designates that, CSEDQL and BC correlate in the same bearing where it means the more the CSEDQL the more the BC and the less the CSEDQL the less the BC and this could not be in the same proportion. This is can ascertain from the sing of the coefficient of the correlation obtained from the table. As the value is little bit above 0.3, the correlation is said to be weak as the correlation (r) $\leq$ 0.3 (Vargha et al., 2013). The probability value of the coefficient is

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0.0001 hence, the correlation is said to be weakly significant at 1%. The study concludes that there is sufficient evidence to support the weak positive correlation found between CSEDQL and BC. Therefore, a research can be conducted between CSEDQL and BC.

In related development and in line with the expectation of this study, the correlation coefficient between CSEDQL and DQ is positive as seen in Table 6.3. This indicates that variables move is in the same direction as the correlation between CSEDQL and DQ is positive. This is an indication that, as CSEDQL is increasing, DQ will also increase probably in an undetermined proportion. This is discovered from the sing of the coefficient of the correlation for the variables under considerations. The value obtained is represented in Table 6.3 where it has a value of 0.4123. In line with other previous correlation so established, if the value of the correlation is greater than 0.3 and is less than 0.5 thus, the correlation can said to be moderate since the correlation (r) ≥ 0.3 (Bach & Bach, 2005). As the probability value for the coefficient is 0.000 from the table, then the correlation is said to be significant at 1% level of significance. For that reason, there is sufficient evidence to support the said correlation between CSEDQL and DQ as moderately positively correlated. Based on the earlier discussion on correlation therefore, the study can be conducted between CSEDQL and DQ provided a correlation exist between the variables. What is paramount is the fact that the correlation between the variables is not equal to zero. As discussed earlier this is only considered if the variables are dependent and independent in nature.

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6.6 Multicollinearity Analysis

One of the assumptions of linear regression is the issue of multicollinearity freee among the independent variables (Alin, 2010). The first step is to correlate among the explanatory variables and notice those with strong correlation of at least 0.7 (Grewal, Cote, & Baumgartner, 2004). Where a strong correlation is found among the independent variables, then a further analysis is to be conducted to confirm the existence of multicollinearity. This analysis include Variance Inflation Factors VIF and the inverse of the VIF (Shieh, 2010). Even though the correlation of this study shows indicators of less than 0.7 with an exception of CSEDQL and DQ which is greater than 0.7 however, there is still need for further analysis to confirm the condition of the multicollinearity in the given data (Shieh, 2010).

The demarcation of the VIF ranges from 1 to 9 as stipulated by some scholars and 1 to 5 by other scholars. This study considered the range of 1 to 5 for the VIF of each of the explanatory variable thus, if VIF is greater than 5 then multicollinearity exist in the said variable and this is in line with Gujarati (2004). The variables involve include board independence (BI), board size (BS), board meetings (BM), directors qualifications (DQ), Board committees (BC) and audit committee independence (ACI). The moderating variables of the study are non-executive directors' ownership (NBO) and the control variables are firm size (SIZ), type of industry (IND) and profitability of the company (PROF) as seen in Table 6.3

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Table 6.4
Multicollinearity Result

Variable	VIF	1/VIF
BI	1.07	0.9366
BS	3.33	0.3000
BM	1.29	0.7756
ACI	1.08	0.9276
BC	1.26	0.7947
DQ	3.49	0.2868
NBO	1.03	0.9678
IND	1.11	0.8998
SIZ	1.64	0.6105
Prof	1.30	0.7681
Mean VIF	1.66	

Table 6.4 is representation of variance inflation factor of each of the independent variable coupled with the inverse of the VIF almost similar to tolerance value as in Statistical Packages for Social Sciences (SPSS). However, like a tolerance value, the smaller the inverse VIF the likely the multicollinearity existence in the variable concerned therefore, inverse VIF should be greater than 0.1 (Alin, 2010; Cox, 2010). For example, BI has VIF value of 1.07 and the inverse value of 0.94, since the VIF is not greater than 5 therefore, then no multicollinearity in BI. This is supported by the inverse VIF as it is far greater than 0.01.

Next explanatory variable is BS where this study reported high VIF value of 3.33 yet is also less than 5. Even though it has small VIF inverse yet is greater than 0.01 thus the BS is collinearity free. The independent variable BM in addition has small VIF and is still collinearity free since the VIF with a value of 1.29 and the inverse VIF of 0.78 are less than 5 and greater than 0.01 respectively. This is also the same case with ACI which reported VIF value of 1.08 and inverse VIF of 0.93 therefore, found to be free from collinearity. The variable BC follow the same suit since its VIF and inverse VIF are 1.26 and 0.79 respectively. Thus, BC is also collinearity free since its VIF is less than 5. In a related development, DQ is found to be free from collinearity since the VIF attributed to it is less than 5 also even though is high as the value is 3.49 hence, having low VIF inverse as low as 0.29 is still greater than 0.1 which is the yardstick.

Other variables include the moderator which serves as explanatory variable also. The moderator here is NBO which has 1.03 VIF value as the lowest among the whole VIFs and the highest VIF inverse of 0.97 in relation to other VIF inverses. Consequently, NBO is collinearity free as its VIF and its related inverse meet up the requirements. This is not in any way different from IND since it has low VIF of 1.11 and high VIF inverse of 0.90 nevertheless, the requirement for collinearity is fulfilled still is free from collinearity. The control variables SIZ and Prof have VIF value of 1.64 and 1.30 respectively. Where their individual related VIF inverse are reported to be 0.61 and 0.77 respectively. From their values so reported therefore, it obvious

both SIZ and Prof meet the requirements for being free from collinearity, hence, SIZ and Prof is multicollinearity cleared.

The mean VIF presented in the last table indicates that on average, each explanatory variable is having 1.66 and the overall average of the VIF is far less than 5 then this study can conclude that not multicollinearity among all the independent variables presented in this study. As a result the study can be conducted using regression analysis as the condition for conducting such type of analysis is fulfilled. The multicolinearity is no longer an issue in this study.

6.7 Normality Distribution of the Data

Normality distribution of the data is another paramount assupmtion of linear regression where it is considered as condition for parametric test analysis. This is because, one of the parametric test condition is that, the data most be normaly distributed across the variables for the test to stand for generalization (Park, 2008). However, it was argued that the normality is to be conducted on the residuals of the model and not the data where the dependent variable determine the parameteric analysis to be conducted (Ghasemi & Zahediasl, 2012). Thus, this study conducted a normility graph on the residuals of the model.
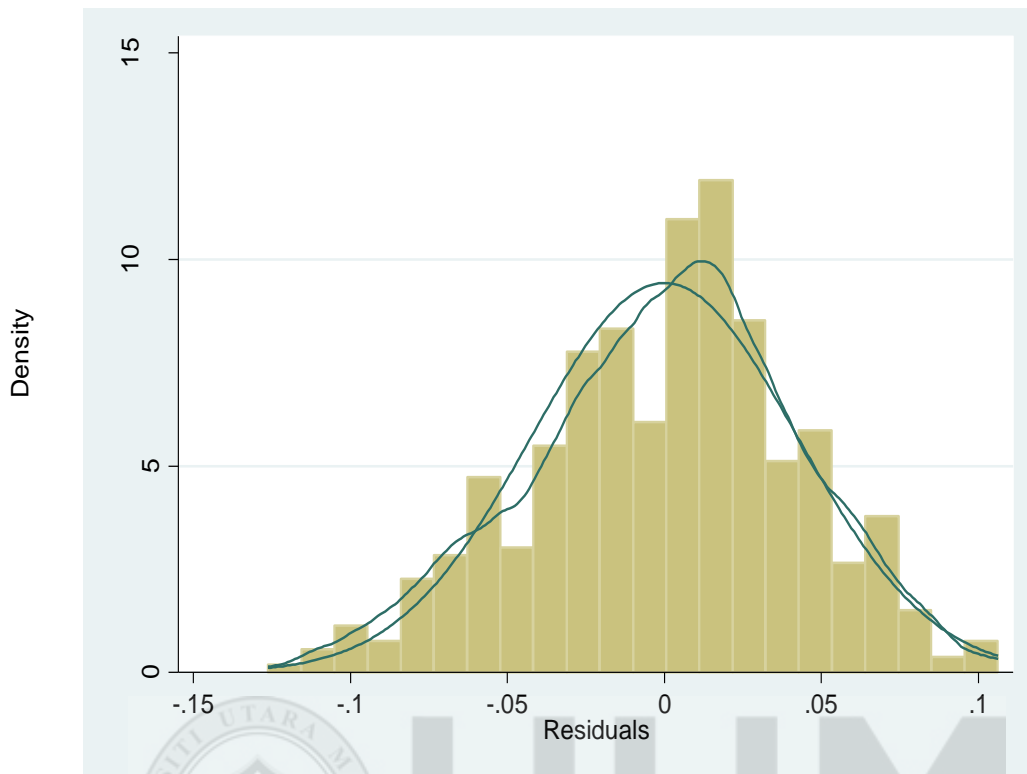
Figure 6.2
Normality Distribution

Figure 6.2 represents the normality distribution of the data on the residuals of the model as recommended by Schützenmeister, Jensen and Piepho (2012) where it was argued that it is more precise and reliable for regression analysis. From the above Figure 6.2 moreover, the distribution of the residuals presented is approximately a bell shape thus an indication of a clear normality on the distribution of the data on the residuals of the model. The normal distribution of data is bell shape hence, a normally distribution of data must be approximately bell shape (Ghasemi & Zahediasl, 2012; Park, 2008; Schützenmeister et al., 2012).

In order to confirm the normality issue presented on Figure 6.2, a normality test using Jarque-Bera test is conducted to support the said graph. The condition for

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Jarque-Bera test is the skewness and the kurtosis is approximately equal to zero with kurtosis of 3. The value obtained must be compare to Monte Carlos simulation table where it indicates that for sample size of 100 and above, the significant value at 1% is 0.1560 and above or 5% which is 0.062 and above is an indication for normality of the distribution of the data (Koizumi, Okamoto, & Seo, 2009; Thadewald & Büning, 2007). In relation to the argument, the Jarque-Bera test for normality is conducted and presented in Table 6.5 below.

Table 6.5
Jarque-Bera Test

Jarque Bera Test for Normality
Jarque Bera normality test: 5.423   Chi (2) 0.0664
Jarque Bera test for Ho: normality:

The value of Chi (2) is 0.0664 as obtained in Table 6.5 for the Jarque–Bera. Since the value is greater than 0.05 as indicated on the table at 5% level of significant therefore, the null hypothesis that the data is normally distributed across the model cannot be rejected. For this reason this study conclude that, the residuals of the model is normally distributed which means the residuals has skewness of approximately zero and kurtosis of approximately 0 to 3.

Base on the above test of normality as determine by Jarque-Bera as seen in Table 6.5 and the normality distribution graph presented in Figure 6.2, therefore, the condition for the requirement on normality distribution of data is fulfilled. For that reason, the

study proceed on the regression analysis where the it determine the relationship between board size and CSEDQL, board independence and CSEDQL, board meetings and CSEDQL, audit committee independence and CSEDQL, board committees and CSEDQL and finally directors qualification and CSEDQL. Thus, regression analysis is followed.

6.8 Pooled, Fixed and Random Effect Model

Pooled regression is always the first step to determine the relationship between dependent and independent variables provided the data is panel. Thereafter, there is need post estimation test such as heteroskedacity, auto/serial correlation among others. Therefore, the study first conducted pooled regression followed by fixed effect regression before conducting random effect regression. After the random regression then Hausman's test is conducted to determine the policy implication of the model. At the end of the Hausman favoured model 3 and further test is conducted for hetersokedasticity to confirm if the selected model can be retain. It is important to note that, auto/serial correlation is not that important for a panel data that has few years such as the one in this study (Drukker, 2003; Gong, Li, & Wang, 2011)(Borenstein, Hedges, Higgins, & Rothstein, 2009). Thus the results of the pooled, random and fixed regression models are represented in Table 6.6 below as CSEDQL (1), CSEDQL (2) and CSEDQL (3) respectively.

Table 6.6
Pooled, Random and Fixed Regression Models

Variables	(1) CSEDQL	(2) CSEDQL	(3) CSEDQL
BS	0.00781*** (6.28)	0.01510*** (9.96)	0.01090*** (8.35)
BI	0.00007 (0.00)	0.01430 (0.75)	0.02830 (1.70)
BM	-0.00174 (-0.80)	0.00241 (1.27)	-0.0000824 (-0.05)
ACI	0.03100 (1.40)	-0.01910 (-0.74)	0.01500 (0.65)
BC	-0.00009 (-0.02)	-0.00324 (-0.31)	-0.00831 (-1.10)
DQ	0.00091 (0.55)	0.00295 (1.74)	0.00200 (1.25)
NBO	-6.59000* (-2.19)	-5.48000* (-2.40)	-5.56000* (-2.47)
BSNBO	1.37000 (0.67)	2.24000 (1.47)	2.60000 (1.72)
BINBO	1.63000 (0.84)	-6.19000 (-0.42)	-9.59000 (-0.66)
BMNBO	6.78000 (0.04)	1.240000 (1.10)	7.41000 (0.65)
ACINBO	6.13000* (2.49)	5.66000** (2.96)	6.02000** (3.19)
BCNBO	6.08000 (0.81)	5.96000 (1.08)	7.87000 (1.44)
DQNBO	9.01000 (0.31)	-1.38000 (-0.62)	-1.58000 (-0.71)
IND	0.00397 (0.94)	0.00543 (0.66)	
SIZ	1.41000 (0.30)	5.24000*** (5.02)	9.54000 (1.46)
_cons	0.21400*** (10.56)	0.13200*** (5.19)	0.16900*** (7.46)

t-statistics in parentheses * $p<0.05$, ** $p<0.01$, *** $p<0.001$

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After due consideration of the above models, the selection of the model is followed by the Hausman's test where the study proposed random effect CSEDQL 2. The result of the Hausman' test is represented in Table 6.7 below for the study to determine which model among CSEDQL 2 and CSEDQL 3 is appropriate. It is important to note that, the explanation of the models presented in Table 6.6 above depends on the selection of the appropriate model base on Hausman's test presented in Table 6.7 below.

As seen from the Table 6.7, the chi-square value is 47.25 and its corresponding probability value is 0.0000. This implies that, there is sufficient evidence to reject the null which said that the random effect model is appropriate since is statistically significant at 1% as the probability value is less than the level of significant. Like any other hypothesis testing, when the null hypothesis is rejected that signifies the alternate hypothesis is true therefore, the model 3 is supported. Base on the Hausman's test therefore, CSEDQL 3 model presented in Table 6.6 above is to be considered in the absence of heteskedasticity. Whereby hetroskeadiasticity exist, then another model that could handle the problem is to be considered. While examining the CSEDQL 3 model board size (BS) is said to be strongly significant at 1% with a positive parameter suggesting increase in BS will increase corporate social and environmental disclosure quality (CSEDQL) with econometric assumption of other things remain constant. In contrary, non-executive directors ownership (NBO) has a negative parameter yet statistically significant at 10% level of significant. Other variable for direct relationship in the model such as board

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independence (BI), board meetings (BM), audit committees independence (ACI), board committees (BC) and directors' qualifications (DQ) are individually not significant statistically in the model.

Table 6.7
Hausman's Test

| Variables | Coefficients | | Standard |
| | (b) | (B) | |
	Fixed	Random	Error
BI	0. 0159	0. 0282	0.0091
BS	0. 0149	0. 0109	0.0008
ACI	-0. 0188	0. 0152	0.0112
BC	-0. 0031	-0. 0090	0.0073
DQ	0. 0032	0. 0020	0.0006
NBO	-5.8000	-5.5500	3.7000
BINBO	-6.2800	-9.5600	7.9800
BSNBO	2.3400	2.6000	1.6400
BMNBO	1.5800	7.2400	.
ACINBO	5.8200	6.0200	3.3500
BCNBO	6.0800	7.8700	5.4600
DQNBO	-1.4500	-1.5700	1.4600
SIZ	5.1300	9.4000	8.1400
Prof	-3.0100	-1.9600	4.4700
Test: Ho: difference in coefficients not systematic			
chi2(5)	=	47.25	
Prob > chi2	=	0.0000	

Base on the Huasman's test, this study can be considered for policy implication as indicate that, the model is correctly specified since is also testing for the functional form of the model. The discussion in the preceding paragraph before Table 6.7 is

before the moderation. When the moderation is introduced however, the result obtained after the moderation indicates that ACI is found to be significant at 5% and the parameter of the ACI changed from negative in the direct relationship to positive which is an indication of improvement. Therefore, the moderator is keen on the relationship between ACI and CSEDQL. But all other variables are not significant after the moderation on the fixed effect model. Consequently, some of the variables that have negative parameters in the direct relationship such as BC and ACI as earlier stated turn out to be positive after the moderation even though the moderation on the relationship between BC and CSEDQL is not significant yet is contribution to the study if CSEDQL 3 model is considered in this study.

At this point, further test for auto/serial correlation is to be conducted to determine the retention of CSEDQL 3 model for where the auto/serial correlation exist in the model, which is likely, then another option must be employed for either i) to go for further analysis or ii) to change to an appropriate model that will correct or accommodate the auto/serial correlation among which FGLS is one (Hausman & Kuersteiner, 2008).

6.9 Auto Correlation and Serial Correlation

Auto correlation and serial correlation have something in common as the presence of one means the other also exists and absence of one also means none exist (Drukker, 2003; Gong, Li, & Wang, 2011). Presence of either auto or serial correlation means

the presence of noise in the time considered provided the data has element of time as in the case of panel where is combinations of cross section and time (Gong et al., 2011). Auto/serial correlation is said to exist where the residuals of the model correlated over time since the assumption is they have zero correlation (Getmansky, Lo, & Makarov, 2004). For OLS or panel regression to be considered worth reporting, the model of the study must be free from auto/serial correlation. However, where a panel data has few times therefore, the issue of auto/serial correlation is not important (Hausman & Kuersteiner, 2008; Maekawa, Setiawan, & Mada, 2014) as the case of this study where it considered only five years. Thus, proceed to test for heteroskedasticity.

6.10 Heteroskedasticity

Heteoskedasticity is a major issues when applying linear regression especially OLS. This is an indication of un-equal variance among the residuals that resulted from the heterogeneity of the data so collected (Gujarati, 2004). Assumption of linear regression required the residuals of the model to be heteroskedastic free otherwise called homoskedastic. When a model is homoskedastic however, there is need to bootstrap the model and if the bootstrapping failed then OLS and panel regression as the case maybe may not be suitable for the model thus, in the presence of hetersokedasticity in model other techniques of analysis other than OLS or panel regression is to be apply as recommended by Gujarati (2004) and Flachaire (2005). To identify the issue of heteroskedaticity in the model there is need to conduct a test

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immediately after the panel regression in addition to the pooled regression in the case of panel data (Patriota, Lemonte, & Bolfarine, 2011).

The test to be conducted is called Breusch-Pagan and Cook-Weisberg test for heteroskedasticity. In this case the null hypothesis proposed constant variance among the residual of the model or the model is homoscedastic however, the alternate said otherwise means the residuals of the model is not constant thus, the model is heteroskedastic. This is done as seen in Table 6.8 below.

Table 6.8
Heteroskedaticity Test

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of CSEDQL
chi2(1)   =   10.29
Prob > chi2   =   0.0013

From Table 6.8 the value of the chi-square obtained from the Breusch-Pagan and Cook-Weisberg test for heteroskedasticity is 10.29 and its associated probability values is 0.0013. Using the rule of hypothesis testing with probability value of less than either 1% or 5% or even 10% then the null hypothesis of that test should be rejected (Flachaire, 2005; Kelejian & Prucha, 2010; Patriota et al., 2011).

Hence, considering 1% level of significant therefore, this study found sufficient evidence against the null hypothesis which said that the residuals of the model is homoskedastic thus is rejected. This is because the probability of the Chi-square found is less than 1% level of significant. This means that the residual of the model for this study is heteroskedstic. For that reason panel regression is not suitable for this study rather some techniques like Generalized Least Squares (GLS) or Feasible Generalized Least Squares (FGLS) is more suitable. This is because, in the presence of heteroskedaticity and/or autocorrelation, panel regression estimators is assumed to be biased thus, best linear unbiased estimates could not be achieved (Hausman & Kuersteiner, 2008; Maekawa et al., 2014).

Therefore, after reporting the pooled regression model, there is need to conduct FGLS regression on the model to overcome the problem of heteroskedacity since the pooled regression may be biased on the said estimators which is against the econometric regression assumptions thus is not suitable in the condition of heteroskedasticity.

However, before proceeding to utilisation of FGLS, fixed and random effect model is conducted on the said panel data so as to meet up the condition for the need to go for another model other than panel regression since it permit us to conduct serial correlation on the said model using F-test with the assumption that there is zero auto/serial correlation in the model. Thus, this study proceeds to FGLS model.

6.11 Regression Result and Model

In econometrics, the general linear regression is a model that is generalized from the classical linear regression model. From the classical assumption therefore, general linear regression can be obtained by altering some assumptions of classical linear model. This is done base on the assumption that the disturbances are non-spherical rather than spherical. As a result the general linear regression model is used to handle data analysis with a data that is characterized by heteroscedasticity and autocorrelation problem.

One of the assumptions the general linear regression model is that the errors are non-spherical. In addition, the error term is uncorrelated with each independent variable. This is in contradiction to the normal classical linear regression model where in the classical assumption, the disturbance is required to be spherical.

Unlike OLS estimator where the parameters are inefficient, not the maximum likelihood, incorrect thus, the estimates of the standard errors are biased and inconsistent rendering the hypothesis tests not valid in the presence of heteroskedacity and autocorrelation therefore, GLS is sound more appropriate estimator. However, GLS has some deficiencies this is because there is need to know the true values of the variances and covariances for the disturbances thus, making FGLS more appropriate. This is because FGLS Estimator is seen as Weighted Least Squares Estimator where it took a weight into considerations hence, it overcome the

heteroscedasticity and autocorrelation problem. Even though FGLS has some steps in its computations, in STATA the steps are not necessary since the software used an expression which involve all the process in arriving at the FGLS estimators.

After conducting several test as condition to use Cross-sectional time-series FGLS regression otherwise known as Feasible Generalized Least Square (henceforth called FGLS) the study find it suitable to utilize FGLS model for better, precise and accurate parameters. Most importantly is to maintain the un-biasness of the parameters as discussed earlier. Among the test conducted to prove the need for FGLS are heteroskedasticity test, auto/s correlation test. While those conditions are not satisfied then, FGLS is to be utilized against the use of other models. This is because, as mentioned earlier, the parameters obtained from those models are considered as biased in the presence of heteroskedasticity and auto/serial correlation (Ghasemi & Zahediasl, 2012; Page, 2009; Schützenmeister et al., 2012). Thus, this study found the need for FGLS model as all the condition for the use of other models failed.

Table 6.10 below presents the result of the FGLS model which includes all the parameters of the variables, their associated standard errors, z-statistics and the probability values of the model for considerations. This is in addition to the R-square value, adjusted R-square, Wald test value for joint significant, probability of the Wald test, the type of the panel and the type of correlation among the error terms of the model. The coefficients also have indication of the level at which is significant

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therefore, one star indicate 10% significant, two stars means is significant at 5% and finally, three stars means the parameter is significant at 1%. Thus, the model of the study can be expressed using the computed parameters shown in Table 6.9.

Table 6.9
Coefficients: feasible generalized least squares

Variables	Coefficients.	Std. Err.	z-statistics	p-value
BI	0.0232**	0.0104	2.23	0.025
BS	0.0079***	0.0008	10.03	0.000
BM	-0.0025**	0.0013	-1.92	0.055
DQ	0.0027***	0.0010	2.67	0.008
BC	-0.0021	0.0038	-0.54	0.590
ACI	0.0259*	0.0155	1.67	0.096
NBO	-7.4500***	1.4500	-5.14	0.000
BINBO	1.8200*	1.0600	1.71	0.088
BSNBO	1.6100	1.1200	1.44	0.151
BMNBO	2.2900	7.2500	0.32	0.752
DQNBO	6.5400	1.5300	0.43	0.670
BCNBO	7.7000**	3.7800	2.04	0.041
ACINBO	6.7300***	1.3200	5.09	0.000
IND	0.0055**	0.0028	1.98	0.048
SIZ	-1.8900	2.3500	-0.80	0.421
Prof	8.6400	7.0300	1.23	0.219
Constant	0.1992***	0.0136	14.62	0.000

Statistics	Coefficients.	p-value
Wald chi2(7)	372.9***	
Prob > chi2		0.000
R-squared	0.2726	
Adj-R-squared	0.2485	
Panels:	heteroskedastic	
Correlation:	No autocorrelation	

From the Table 6.9 above, the model of the study as derived from chapter 5 will be thus,

Model:

$$CSEDQL_{it} = 0.12 + 0.023\ BI_{it} + 0.008\ BS_{it} - 0.002\ BM_{it} + 0.003\ DQ_{it} - 0.002\ BC_{it} + 0.026\ ACI_{it} - 7.45\ NBO_{it} + 1.82\ BI_{it} \times NBO_{it} + 1.62\ BS_{it} \times NBO_{it} + 2.29\ BM_{it} \times NBO_{it} + 6.54\ DQ_{it} \times NBO_{it} + 7.70\ BC_{it} \times NBO_{it} + 6.73\ ACI_{it} \times NBO_{it} - 1.89\ SIZ_{it} + 0.006\ IND_{it} + 8.64\ PROF_{it}$$

The first explanatory variables is board independence (BI) as represented in model above thus, this study will start explaining BI relationship with corporate social and environmental disclosure equality (CSEDQL) followed by Board size (BS), board meetings (BM), directors' qualification (DQ), board committees (BC), audit committee independence (ACI), non-executive directors' ownership (NBO) and finally all the moderating variables as seen in the model.

6.12 Hypothesis One (Board Independence and CSEDQL)

Board independence is seen in this study as the proportion of non-executive directors to total number of directors on board as define by Arena, Bozzolan and Michelon (2014), Haniffa and Cooke (2005). Followed by the argument previously in the literature, the study hypothesized that the more the non-executive directors on board the more the CSEDQL since it was proposed positive relation in line with stakeholders and agency theory. Therefore, the result of the study is expected to rhyme with the hypothesis so postulated as in hypothesis one.

This is confirmed from the parameter **ß1** as seen in the model. From model, the coefficient of BI is 0.023. This is clear indication of positive relationship as propose in hypothesis 1. This means the higher the independent directors on board the higher the CSEDQL as supported by stakeholders and agency theory. Thus, one increase in BI will bring about 0.023 increase in CSEDQL with the econometric assumption of other things remain constant. The relationship so established is said to be significant at 5% since the p-value of the z-statistics is 0.025 as seen in Table 6.9. The p-value is less than 5% hence, this study found a sufficient evidence to support the hypothesis that said there is relationship between BI and CSEDQL.

6.13 Hypothesis Two (Board Size and CSEDQL)

Thus, board size is perceived in this study as the total number of both executive and non-executive directors on board (Arena et al., 2014; Haniffa & Cooke, 2005). Base on the literature established on board size previously, this study hypothesized that the more the number directors on board the more the CSEDQL as it was proposed as positive relationship between BS and CSEDQL in line with stakeholders and agency theory. Hence, the result of the study is expected to rhyme with the hypothesis so postulated as in hypothesis two found in chapter 4 of this research.

The proposed relationship is established in the parameter β_2 considered in the model. The coefficient of BS as seen in the table is 0.0079 which is positive. That signifies positive association as predicted by the study and proposed in hypothesis two. Thus, the more the number of directors on board the more the social and environmental disclosure quality base on the sign obtained from the coefficient of BS. This is an indication that, the higher the executive and non-executive directors on board the higher the CSEDQL as supported by stakeholders and agency theory. As a result, it means that one increase in number of board member will bring about 0.008 increase in corporate social and environmental disclosure quality among Nigerian listed firms with the econometric assumption of other things remain constant. The relationship so established is said to be significant at 1% since the p-value of the z-statistics is 0.000 as presented in Table 6.9. Since the p-value is less than 1% therefore, there is sufficient evidence to support the alternate hypothesis that

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said there is relationship between board size and corporate social and environmental disclosure quality. Accordingly, the proposed hypothesis 2 in chapter 4 which obviously postulates that there is positive relationship between board size and corporate social and environmental disclosure quality is supported.

6.14 Hypothesis Three (Board Meetings and CSEDQL)

The proposed relationship based on board meetings and CSEDQL is established as in parameter $ß3$ considered in model above. Form the result obtained, the coefficient of BM is -0.0025 which is negative. This implies that, a negative association as opposed to the predicted positive relationship proposed in hypothesis three. Thus, the more the number of meetings held by board the less the social and environmental disclosure quality base on the sign obtained from the coefficient of BM as negative. This is clear contradiction with the postulated hypothesis even though it was established that, there is mixed findings on the said relationship base on previous literature and that give this study an insight on moderation. Therefore, this outcome will be considered pending the moderating outcome.

Base on the result obtained therefore, it is an indication that, the higher the numbers of meetings by board annually, the lower the corporate social and environmental disclosure quality (CSEDQL). This means that one increase in number of meetings of the board members will bring about 0.0025 decreases in corporate social and environmental disclosure quality among Nigerian listed firms with the econometric

assumption of other things remain constant. The relationship so established is said to be significant at 10% since the p-value of the z-statistics is 0.055 as presented in Table 6.9 therefore, the said relationship is weak significant. This is because the p-value is less than 10%, hence; there is sufficient evidence to support the hypothesis that said there is a relationship between board meetings and corporate social and environmental disclosure quality. Accordingly, the proposed hypothesis 3 in chapter 4 which obviously postulates that there is positive relationship between board meetings and corporate social and environmental disclosure quality is supported subject to the moderating effect simply because of the negative parameter. In contrary, the study is inconsistent with Laksmana (2008).

6.15 Hypothesis Four (Directors' Qualifications and CSEDQL)

The directors qualifications (DQ) is considered in this study as the total number of directors on board with accounting, finance and/or business and any other related qualifications as define by Barako, Hancock and Izan (2006). In line with the literature established on qualification of directors on board previously, this study hypothesized that the more the number of directors with accounting, finance and/or business qualifications on board the more the corporate social and environmental disclosure quality in line with stakeholders and agency theory. Hence, the result of the study is expected to agree with the hypothesis 4 of the study.

The proposed relationship is established as seen in the parameter **ß4** found in model above. The coefficient of DQ is 0.003 which is positive that signifies positive relationship as predicted by this study and proposed in hypothesis four. Thus, the more the number of qualified directors on board the more the social and environmental disclosure quality (CSEDQL) base on the sign obtained from the coefficient of DQ.

This means that, the higher the number of directors with accounting, finance and/or business qualifications on board the higher the CSEDQL quality as supported by stakeholders and agency theory. As a result, it means that one increase in the number of directors with accounting, finance and/or business qualifications will bring about 0.003 increase in corporate social and environmental disclosure quality among Nigerian listed firms with the econometric assumption of other things remain constant. The relationship so established is said to be significant at 1% since the p-value of the z-statistics is 0.008 as presented in Table 6.9. Since the p-value is less than 1% therefore, there is sufficient evidence to support the hypothesis that said there is relationship between the number of directors with accounting, finance and/or business qualifications and corporate social and environmental disclosure quality. Accordingly, the proposed hypothesis 4 which obviously postulates that there is positive relationship between the number of directors with accounting, finance and/or business qualifications and corporate social and environmental disclosure quality is supported. This is consistent with Haniffa and Cooke (2000) and

Peters and Romi (2014) where their study found positive relationship between directors qualifications and environmental disclosure.

6.16 Hypothesis Five (Board Committees and CSEDQL)

Board committees is considered in this study as the number of committees a company has (Upadhyay et al., 2014). Followed by the argument previously, the study hypothesized that the more the numbers of committees on board the more the corporate social and environmental disclosure quality in line with agency theory. Therefore, the result of the study is expected to rhyme with the hypothesis five so postulated.

This is however, opposed which is confirmed from the parameter **ß5** as seen in model above. From the model, the coefficient of BC is -0.002. This is clear indication of negative relationship which opposes the hypothesis 6 proposed in chapter 4 of this study. This means the higher the number of committees on board the lower the corporate social and environmental disclosure quality. Accordingly, one increase in the number of committees on board will bring about 0.002 decrease in CSEDQL with the econometric assumption of other things remain constant. The establishment of the relationship is not significant at all level of significances since the p-value of the z-statistics is 0.59 as seen in Table 6.9. As the p-value is greater than 10%, then, this study does not have a sufficient evidence to support the alternate hypothesis that said there is positive relationship between BC and CSEDQL. Thus,

the proposed hypothesis 6 that proposed a positive relationship between audit committee independence and corporate social and environmental disclosure quality is not supported.

6.17 Hypothesis Six (Audit Committee Independence and CSEDQL)

Audit committee independence is considered in this study as the proportion of non-executive auditors to total number of auditors in the committee in line with the definition of O'Sullivan, Percy and Stewart (2007). Followed by the argument previously, the study hypothesized that the more the non-executive directors on audit committee the more the corporate social and environmental disclosure quality (CSEDQL) in line with agency theory. Therefore, the result of the study is expected to rhyme with the hypothesis so postulated as in hypothesis six.

This is confirmed from the parameter **ß6** presented in model above. From the model, the coefficient of ACI is 0.026. This indicates a positive relationship as propose in the hypothesis 6 in chapter 4 of this study. This means the higher the proportion of non-executive directors on board the higher the CSEDQL as supported by stakeholders and agency theory. Accordingly, one increase in ACI will bring about 0.026 increase in CSEDQL with the econometric assumption of other things remain constant. The establishment of the relationship is said to be significant at 10% since the p-value of the z-statistics is 0.096 as seen in Table 6.9. As the p-value is less than

10% then, this study found a sufficient evidence to support the alternative hypothesis that said there is relationship between ACI and CSEDQL.

6.18 Non-Executive Directors Ownership

The non-executive directors ownership is seen in this study as the number shares own by the non-executive directors on board (Akhtaruddin & Haron, 2010). Followed by the argument in the literature therefore, the study expect that either positive or negative relationship provided it will enhance the relationship between the response variable corporate social and environmental disclosure quality (CSEDQL) and the explanatory variables which include board independence (BI), board size (BS), board meetings (BM), directors' qualification (DQ), board committees (BC) and audit committee independence (ACI).

Base on the discussion therefore, the parameter **ß7** as seen in model is the slope of non-executive directors' ownership (NBO). From model 2, the coefficient of NBO is ₋7.45. This is indicates a negative relationship. This means the higher the ownership of non-executive directors on board the lower the CSEDQL however, this is before the moderation. This study concerned is the moderation and not the direct relationship as seen in the model. The relationship so established is said to be significant at 1% since the p-value of the z-statistics is 0.0000 as seen in Table 6.9.

6.18.1 Hypothesis 7a (The Interaction between Board Independence and CSEDQL)

Thus, this study expects stronger relationship as postulated in hypothesis 7a of the study. Thus, the relationship between board independence (BI) and corporate social and environmental disclosure quality (CSEDQL) is more effective when non-executive directors' ownership (NBO) is introduced. Therefore, the result of the study is expected to rhyme with the hypothesis so postulated as in hypothesis 7a.

This is confirmed from the parameter ß8 as seen in model above as the coefficient of BI*NBO is 1.8. This is clear indication of stronger positive relationship as compare to the previous parameter found in the direct relationship which is 0.023 as seen in hypothesis 1. This means the higher the interaction of non-executive director's ownership and independent directors on board the higher the corporate social and environmental disclosure quality (CSEDQL) as supported by stakeholders and agency theory. Thus, one increase in the interaction of non-executive director's ownership and board independence (BI*NBO) will bring about 1.8 increase in CSEDQL with the econometric assumption of other things remain constant. The relationship so established is said to be significant at 10%. This is because, the p-value of the z-statistics is 0.088 as seen in Table 6.9. Since the p-value is less than 10% hence, this study found a sufficient evidence to support the alternate hypothesis that said that non-executive director's ownership moderates the positive relationship between independent directors on board and corporate social and environmental

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disclosure quality. Thus, the hypothesis 7a which proposed non-executive directors'
ownership moderates the relationship between board independence and corporate
social and environmental disclosure quality is hereby supported.

6.18.2 Hypothesis 7b (The Interaction between Board Size and CSEDQL)

The proposed moderating relationship is established as in the parameter ß9
considered in the above model. The coefficient of the interaction between board size
and non-executive directors' ownership (BS*NBO) is 1.61 which is positive that
signifies positive moderation as predicted by hypothesis 7b. This is an indication of
stronger positive relationship as compare to the previous parameter found in the
direct relationship which is 0.023 as in hypothesis 2. Thus, the more the interaction
of non-executive director's ownership (NBO) and board size (BS), the higher the
social and environmental disclosure quality (CSEDQL) base on the sign obtained
from the coefficient of BS*NBO as in Table 6.9 above.

This is an indication that, the higher the increase in the interaction of non-executive
director's ownership and board independence, the higher the higher the CSEDQL.
Therefore, one increase in the interaction of non-executive director's ownership and
board size will bring about 1.61 increase in corporate social and environmental
disclosure quality among Nigerian listed firms with the econometric assumption of
other things remain constant. The relationship so established is not significant since
the p-value of the z-statistics is 0.151 as presented in Table 6.9. Since the p-value is

greater than 10% therefore, there is no sufficient evidence to support the alternate hypothesis that said that the interaction of non-executive director's ownership and board size has relationship with corporate social and environmental disclosure quality. Accordingly, the proposed hypothesis 7b in chapter 4 is not supported.

6.18.3 Hypothesis 7c (The Interaction between Board Meetings and CSEDQL)

This study hypothesized that non-executive directors' ownership moderates the relationship between board meetings (BM) and corporate social and environmental disclosure quality (CSEDQL). The empirical relationship is established in parameter $\beta 10$ as in model above. From the result obtained, the coefficient of the interaction between board meetings and non-executive directors' ownership (BM*NBO) is 2.29 as against the direct relationship of -0.0025. This implies that, the moderation is effective on the negative association as opposed to the predicted positive relationship proposed in hypothesis three. Thus, the more the increase in the interaction between non-executive ownership on board and the number of meetings held by board the more the social and environmental disclosure quality (CSEDQL) base on the sign obtained from the coefficient of BM*NBO as positive. The result obtained is in line with hypothesis 7c.

However, the relationship is not significant since the p-value of the z-statistics is 0.752 as presented in Table 6.9. This is because the p-value is greater than 10%

hence; there is no sufficient evidence to support the hypothesis. Accordingly, the proposed hypothesis 7c in chapter 4 not supported.

6.18.4 Hypothesis 7d (The Interaction between Directors' Qualifications and CSEDQL)

It is argued by this study that, the non-executive director's ownership could moderate the relationship between the number of directors with accounting, finance and/or business qualifications on board and the corporate social and environmental disclosure quality in line with stakeholders and agency theory. Hence, the result of the study is expected to agree with the hypothesis 7d of the study.

The proposed relationship is established as seen in the parameter ß11 found in model above. The coefficient of interaction between directors' qualification and non-executive directors' ownership (DE*NBO) is 6.54 which is positive that signifies positive relationship as predicted by hypothesis 7b. Thus, the more the increase in the interaction between qualified directors on board and non-executive directors' ownership the more the social and environmental disclosure quality as supported by stakeholders and agency theory. As a result, it means that one increase in the interaction of DQ and NBO will bring about 6.54 increase in corporate social and environmental disclosure quality (CSEDQL) among Nigerian listed firms however, the relationship is insignificant as the p-value is 0.675. Thus, this study conclude that, there is no sufficient evidence to support the alternate hypothesis that said the

relationship between the directors' qualification (DQ) and corporate social and environmental disclosure quality (CSEDQL) is positively moderated by non-executive director's ownership. Accordingly, the proposed hypothesis 7d is not supported.

6.18.5 Hypothesis 7e (The Interaction between Board Committees and CSEDQL)

This study hypothesized in hypothesis 7e that non-executive directors' ownership (NBO) moderates the relationship between board committees (BC) and corporate social and environmental disclosure quality (CSEDQL).

This is however, opposed which is confirmed from the parameter ß12 as seen in model above. From model, the coefficient of the interaction between board committees and non-executive directors' ownership (BC*NBO) is 7.7 as opposed to the direct relationship found with negative parameter of 0.002. This is clear indication of good moderation which gives an opposite of the direct relationship obtained and more importantly the said relationship so established is statistically significant at 5%. This result opposes the hypothesis 6 of the study. This means the higher the interaction between BC and NBO the higher the CSEDQL as supported by hypothesis 7e. As a result, it means that one increase in the interaction of BC and NBO will bring about 7.7 increase in corporate social and environmental disclosure quality among Nigerian listed firms. The relationship found is significant at 5% since

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the p-value of the z-statistics is 0.04 as seen in Table 6.9. As the p-value is less than 5% then, this study has sufficient evidence to support the alternate hypothesis that said there is moderation on the relationship between BC and CSEDQL. Thus, the proposed hypothesis 7e is hereby supported.

6.18.6 Hypothesis 7f (The Interaction between Audit Committee Independence and CSEDQL)

Followed by the argument previously, the study hypothesized that non-executive director's ownership (NBO) moderates the relationship between the audit committee independence (ACI) and the corporate social and environmental disclosure quality (CSEDQL). Therefore, the result is expected to rhyme with hypothesis 7f.

This is confirmed from the parameter ß13 as seen in the model above. From model, the coefficient of the interaction between the audit committee independence and non-executive director's ownership (ACI*NBO) is 6.73 and is statistically significant at 1% where the direct relationship parameter is 0.026 and is significant also at 10%. This is clear indication of positive moderating effect of non-executive director's ownership on the relationship between ACI and CSEDQL as propose in the hypothesis 7f in chapter 4 of this study. This means the higher the interaction of ACI and NBO the higher the CSEDQL as supported by stakeholders and agency theory. Accordingly, one increase in interaction of ACI and NBO will bring about 6.73 increase in CSEDQL. The establishment of the relationship is said to be significant

at 1% since the p-value is 0.000 as seen in Table 6.9. The study found sufficient evidence to support the alternate hypothesis. Thus, the proposed hypothesis 7f that proposed otherwise is thereby supported.

6.19 Model Fitness and Overall Significance

The fitness of the model is another yet, an important aspect of regression analysis as many researchers proposed better model which represent the true value of the research. In doing so, it was also argued that, the more the model is fit the more accurate is the precision of the parameters found from the model (Gill & Hevner, 2011). It was also argued that, the fitness of the model determine the strength of the model, hence, the power of the said model to predict with high level of accuracy is seen as the mirror of the model fitness (Baltagi, 2011; Hansen, 2009). The model fitness can be measure using R-square value.

Depends on the type of data used, the R-square can either be 5%-20% as weak model, 21%-50% as moderate and above 50 as strong however, as the model is getting stronger entails the study is about to be completed in the area of concerned (Cheng, Leung, & Yu, 2014; Israeli, 2007). This is because, the R-square is the percentage of the explained variables accounted for by the explanatory variables, hence, the maximum R-square is 100% (Baltagi, 2011; Hansen, 2009). It is important to note that, as R-square is getting low, the fitness of the model will also be less and the more the increase in the independent variable in the model, the more

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the R-square increase thereby making the fitness of the model to be stronger (Flachaire, 2005; Grewal et al., 2004).

Researchers recommend from 10% above for a panel data, thus, this study R-square is 27% hence the model fitness of the study is moderate and could be said to be fitted for the analysis. This means that board independence, board size, board meetings, director's qualifications, board committees, audit committees independence and non-executive director's ownership jointly accounted for 27% changes in corporate social and environmental disclosure quality among the listed firms in Nigeria from 2010 to 2014 inclusive. Unlike the R-square that concentrate on the independent variables, the adjusted R-square represents both the independent variables and the number of observations of the study. Thus, the adjusted R-square is normally less than the adjusted R-square due to some adjustment considered in process of its calculation where the number of observation is one (Baltagi, 2011). The adjusted R-square for this study is 25% which also moderate and explained the 500 observations for the study including the corporate governance variables accounted 25% of the CSEDQL and is thereby accepted as the model fitness.

On the part of significances however, there is need to know if all the independent variables of the model are jointly significant in explaining changes in the explained variable. This is because, an independent variable can be individually insignificant and collectively insignificant thus, such variable need to be drop as recommended by Gujurati (2004). On contrary, where a variable is not significant individually but is

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significant collectively, the variable must be included in the model provided is not collinear with other independent variables (Dougherty, 2007; Gujarati, 2004; Wooldridge, 2011). One of the way to identify the collective significances is either F-statistics Chi or Wald Chi Statistics with their associated probability (Baltagi, 2011). If the F-statistics or Wald Statistics is significant (p-value is less than 5%) therefore, the study can conclude that all the explanatory including the interactive variables are jointly significant in explaining changes in the dependent variable.

Base on the result of Wald Chi Statistics including its associated probability obtained from Table 6.9 therefore, the study found that board independence, board size, board meetings, director's qualifications, board committees, audit committees independence and non-executive director's ownership including all the interaction between non-executive director's ownership and all the independent variables, the control variables are jointly significant in explaining changes in corporate social and environmental disclosure quality. This is because; the probability of Wald test is 0.0000 which is significant with the Wald Chi value of 372.9. This signified that those hypothesis that were not supported individually cannot be drop hence they must be included in the model according the Wald test of the study. Therefore, the model of the study is fitted and all the independent variables are important in explaining changes on the dependent variables CSEDQL.

In conclusion the model of the study represents all the findings of the study since is fitted, and jointly the independent variables of the model are statistically significant in explaining changes on the dependent variable.

6.20 Summary of the Chapter

This chapter established relationship between CGM and CSEDQL. The chapter discussed the trend of the disclosure; the descriptive statistics, the correlation and multicollinearity test. Other analysis discussed include the regression result, heteroskedacity and autocorrelation/serial correlation. At the end of the regression result the summary of the findings is derived as follows:

- Based on the result stipulated in Table 6.9, BI, BS and DQ are found to have positive and significant influence on CSEDQL. However, BM and NBO have negative and significant impact on CSEDQL. Meanwhile BC have no significant relationship with CSEDQL.

- After moderation, NBO positively and significantly moderates the relationships between BI and CSEDLQ, BC and CSEDQL and ACI and CSEDQL. While the relationship between BS and CSEDQL, BM and CSEDQL and DQ and CSEDQL were not moderated by NBO.

Conclusively, the summary of the tested hypothesis is presented in Table 6.10 below:

Table 6.10
Summary of the Tested Hypothesis

	Hypothesis	Sign	Findings	Decision
H₁:	There is a positive relationship between the percentage of non-executive directors on board and CSED quality	+	Positive and Significant	Supported
H₂:	There is a positive relationship between board size and CSED quality	+	Positive and Significant	Supported
H₃:	There is a positive association between the board meetings frequency and CSED quality	−	Negative Not Significant	Supported
H₄:	There is a positive association between the number of directors with accounting, finance and/or business qualifications and CSED quality	+	Positive and Significant	Supported
H₅:	There is a positive relationship between the presence of committees and CSED quality	−	Negative Not Significant	Not Supported
H₆:	There is a positive relationship between audit committee independence and CSED quality	+	Positive and Significant	Supported
H₇ₐ:	The relationship between board independence and CSED quality is moderated by non-executive director's ownership positively	+	Positive and Significant	Supported
H₇ᵦ:	The relationship between board size and CSED quality is moderated by non-executive director's ownership positively	+	Positive Not Significant	Not Supported
H₇꜀:	The relationship between board meetings frequency and CSED quality is moderated by non-executive director's ownership positively	+	Positive Not Significant	Not Supported

	Hypothesis	Sign	Findings	Decision
H7d:	The relationship between the proportion of directors on board with at least accounting, business and finance qualification and CSED quality is moderated by non-executive director's ownership positively	+	Positive Not Significant	Not Supported
H7e:	The relationship between the presence of board committee and CSED quality is moderated by non-executive director's ownership positively	+	Positive and Significant	Supported
H7f:	The relationship between audit committee independence and CSED quality is moderated by non-executive director's ownership positively	+	Positive and Significant	Supported

From the Table 6.10 above, four direct hypothesis were supported with one supported but opposite direction, and one is not supported. Meanwhile, three moderating hypothesis were supported and the other three were not supported. In total, for both direct and moderating hypothesis, seven hypotheses were supported and four were not supported. The study gives details of the factors that contributed to the corporate social and environmental disclosure quality among listed firms in Nigeria.

Next chapter discussed the findings of the study, the implication of the study, the limitations of the study and finally, the area of further research.

7.1 Introduction

This chapter discussed about the summary and conclusion of the study where it started with the overview of the study, a summary of the findings, research implications and recommendations of the findings and the conclusion of the findings. In the process, it highlights the impact of BI and corporate social and environmental disclosure quality (CSEDQL), BS and CSEDQL, BM and CSEDQL, DQ and CSEDQL, BC and CSEDQL and finally ACI and CSEDQL. In addition, the chapter discussed the role of NBO on the direct relationships.

7.2 Overview of the Study

There is a high level of environmental pollution in Nigeria since as mentioned earlier is considered among the largest polluted country in the world via the release of carbon from the company that operated in the Nigerian society. Even though this is mostly attributed to oil companies, however, all companies in one way or the other contributed negatively to the environment which raises the alarm by stakeholders. Despite this negative effect of the operating firms in Nigeria, they pay less attention to environmental issues in addition to social issues. Thus, so many agitations by stakeholders against the companies were raised, especially in Niger Delta, where it metaphors to militancy among other security and social injustice. This could be said

to arise as a result of poor reporting of social and environmental issues in the respective company's annual reports and account which could serve as a medium of communication with its relevant stakeholders.

This attracts scholars on social and environmental studies to pay attention as to the factors that lead to the poor reporting and the agitations of the stakeholders through the agents of the companies called CGM. That led to the use of stakeholders and agency theories where this study focussed. This is done through the establishment of the relationship between CGM such as board independence, board size, board meetings, director's education, board committees, audit committee independence and corporate social and environmental disclosure quality.

Since there is few studies in the area of social and environmental disclosure in Nigeria in addition to the mixed result found in the previous studies therefore, this study reviewed and investigate the moderating effect of non-executive ownership on the relationship between corporate governance mechanism and the corporate social and environmental quality among Nigerian listed firms from 2010 to 2014 years inclusive. Part of the contribution of this study is the moderator which plays an intensive role on the mixed result found previously. In order to maintain the quality of the disclosure however, this study used Global Reporting Initiative to measure the quality of the disclosure of social and environmental issues using checklist measured by un-weighted index. This is in line with the argument of Cormier et al. (2005) where the study supported the measurement of quality as GRI checklist usage and

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recommends the use of un-weighted index to avoid biasness on the checklist used. Other variables used in the study are the control variables which include firm size, industry and profitability. This is to provide more fitness of the model.

7.3 Discussion of Findings

The findings of the study are briefly discussed below. These include the relationship between board independence (BI), board size (BS), board meetings (BM), directors' qualifications (DQ), board committees (BC), audit committee independence (ACI) and corporate social and environmental disclosure quality (CSEDQL). Others include the moderating effect of non-executive directors' ownership on the relationship between board independence (BI) and CSEDQL, board size (BS) and CSEDQL, board meetings (BM) and CSEDQL, directors' qualifications (DQ) and CSEDQL, board committees (BC) and CSEDQL, audit committee independence (ACI) and CSEDQL.

7.3.1 Relationship between Board Independence and CSEDQL

The result of this study shows that the relationship between board independence (BI) and corporate social and environmental disclosure quality (CSEDQL) is positively significant. This can be seen in Table 6.9 with the parameter value of 0.0232. The result prove that, the presence of non-executive directors on board improve corporate social and environmental disclosure quality. This is argued by many researchers such

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as Ho and Wong (2001) and Haniffa and Cooke (2005). It is also argued that, the independent directors paid more attention to disclosure issues which include both social and environmental disclosure. It is also argued based on agency theory that, non-executive directors are in a better position to check and balance the activities of board which could improve board efficiency and more effective through the reduction of agency disagreements between managers of the firm and owners of the firm as supported by agency theory (Liao & Lu, 2009). In addition, stakeholder theory supported the said relationship since, it comes into play to maintained the relationship between the directors, the shareholders and the community. They also control the disclosure of fraudulent activities and pay attention to standard of reporting. Thus, their actions expect to increase not only the disclosure but the quality of such disclosure where social and environmental issues are inclusive.

Furthermore, this study confirmed that any additional non-executive director on board will bring about an increase on social and environmental disclosure quality. This can be explained practically, since on average a listed company in Nigeria has at least two non-executive directors on board and they are performing their duty as prescribed by Securities and Exchange Commission of Nigeria. This is because, the main reason for their presence is for check and balance and also to improve the disclosure as supported by agency theory (Arena, Bozzolan & Michelon, 2014). Their presence could also maintained the relationship between the mangers and the stakeholders as supported by stakeholder theory. The result of the study is in line with Post, Rahman, and Rubow (2011) and Huang and Kung (2010) where their study found positive

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relationship between board independence and environmental disclosure. However, the study is inconsistent with other studies like Barako et al. (2006) as well as Haniffa and Cooke (2002) in terms of disclosure which includes CSED.

7.3.2 Relationship between Board Size and CSEDQL

Another important corporate governance mechanism is board size which plays an important role on disclosure. The board size is also found to be positively and significantly related to CSEDQL with the coefficient of 0.0079 as seen in Table 6.9. This is because board size could control information flow as there will be variety of experienced and qualified directors as a result of their numbers on board. It is also argued that, as an important component of CGM, large board could tackle larger information and deliberate more on disclosure of information of both financial and non-financial issue hence, which could translate into more disclosure of information in an annual report of company. The argument supported by agency theory where it indicated that the larger the members of the board, the more the competency of the board members hence, the extra the disclosure (Eugene, Cheng & Courtenay, 2006; Lim et al., 2007). The presence of larger board could also address the problem of stakeholders through more disclosure of social activities as supported by stakeholder theory (Barako et al., 2008). It is also claimed by Lim et al. (2007) that, the more the directors on board the more the attention to other disclosure issues which include social and environmental disclosure. Furthermore, the number of both executive and non-executive directors determine the check and balances of

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the activities of board thereby resulting to a positive on disclosure, in the case of this study, corporate social and environmental disclosure quality and this could be attributed to the board efficiency and effectiveness as supported by stakeholders-agency theory (Liao & Lu, 2009).

Moreover, this study established beyond reasonable doubt that any additional member of director on board determines the increase on social and environmental disclosure quality. This is because, the relationship is positively significant. The result is consistent with Cormier et al. (2011), Huang & Kung (2010) and Cormier, Ledoux and Magnan (2011) where their study found positive relationship between board size and environmental disclosure..

This could be true as the minimum number of board's members a listed company has in Nigeria is 5 with a maximum number of 20 and average number of 10 members as seen in Table 6.2. This is argued by Cormier et al. (2011) and Huang & Kung (2010) where they claimed that, the more the size of the board increases, the likely the increase in social and environmental disclosure. This in addition is supported by Germain, Galy and Lee (2014). In contrary, the study is inconsistent with other studies (Arcay & Vazquez, 2005; Cormier et al., 2010).

7.3.3 Relationship between Board Meetings and CSEDQL

The result obtained in Table 6.9 indicates a negative relationship between board meetings and CSEDQL with the parameter of 0.0025. The meeting of the board is seen as important CGM. In terms of disclosure however, it was considered a monitoring mechanisms (Germain et al., 2014). In some instances, board meetings frequently is seen as an indication of seriousness by board members in tackling issues raised by the company and its stakeholders in addition to any other related business which include the financial and non-financial disclosure where social and environmental issues is not in isolation. This is not supported by the stakeholder theory and according to Chen, Firth, Gao, and Rui, (2006) the number of board meeting could be seen as the persistence and watchfulness of board in discharging their functions and duties as monitoring mechanisms.

However, the result found is inconsistent with other findings such as Khanchel (2007) and Lim et al. (2007). This could be attributed to the fact that social and environmental disclosure is at infant stage in Nigerian situations, in fact most of the companies disclose information on social and environmental issues as a result of stakeholders pressure (Adewuyi & Olowookere, 2010). Another possible explanation is that, even though they have meetings annually as prescribed by Securities and Exchange Commission of Nigeria (SEC), most of the company have only two meetings as against the recommended four meetings annually by the SEC. In addition to that, the members of board could said to pay less attention to the social

and environmental issues in their meetings if such negative relationship is established (Nelson, Gallery & Percy, 2010).

Another issue that could explained the contradictory nature of the result is the need for a moderator since it was indicated earlier that there was mixed findings in previous researches. This is clearly the condition for a moderator (Ahmed & Duellman, 2007). Therefore, this study introduced moderator to overcome this kind of scenerio which could be seen later in the study. After the moderation, the result is therefore expected to be positive so as to be in line with the agency theory.

7.3.4 Relationship between Directors' Qualifications and CSEDQL

The expertise of the directors on board base on their qualification is also an important aspect of CGM where it has an important role to play on disclosure of social and environmental quality issues. Directors' qualification is found to be positively related to CSEDQL and is statistically significant with coefficient of 0.0027 as seen in Table 6.9. This is because, the qualifications could be a prerequisite for control of information flow, especially the disclosure aspect as there will be variety of qualified directors as a result of their qualification held. The reason for that is the more the qualified directors on board the more the directors are said to be qualified to tackle any information and could be considered more active on disclosure of information of both financial and non-financial issue therefore, the more the disclosure in an annual report of company (Gray, 1988).

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Thus, this study established beyond reasonable doubt that any additional member of directors with accounting, finance and/or business qualifications on board determines the increase on social and environmental disclosure quality. This could be attributed to the fact that on average five members of the board among Nigerian listed firms has at least accounting, finance and/or business qualifications as seen in the Table 6.2. This is supported by many studies as the larger the qualified members on board the more the possibility for competency of the board members hence, the more the disclosure (Lim et al., 2007). It is also argued that, the more the qualified directors on board the more the attention to disclosure issues which include both social and environmental disclosure. Additionally, the number of qualified directors on board determine the quality of their activities on board thereby resulting to an improvement on disclosure in general thus, corporate social and environmental disclosure will be improve by the efficiency and effectiveness of the board (Gul & Leung, 2004; Welford, 2007) as supported by stakeholders-agency theory. The theory prove that there is high tendencies for qualified directors to monitor the disclosure of some activities that are considered unlawful thus, improving the standard of the reporting (Gul & Leung, 2004). As a result of their high qualified representations, their activities believe to improve not only the disclosure but the quality of such disclosure hence, improve on social and environmental disclosure quality as supported by the stakeholder theory.

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7.3.5 Relationship between Board Committees and CSEDQL

The relationship between board committees and CSEDQL is not significant as seen in Table 6.9 even though the parameter is negative, the relationship is said to be by chance. In the case of the committees, the Securities and Exchange Commission of Nigeria (SEC) give the directors of the company's power to delegate some of their duties to committees; this is in line with the SEC rules where the delegation of their duties to other committees is under their jurisdiction. For example, the board of directors assign few of its obligations to sub committees, in which agency theory persist that it lead to management control hence, shareholders protection (Aebi et al., 2012; Engel et al., 2010; Hoitash et al., 2009). In addition, the committee could relieved the activities of the directors thereby resulting to more disclosure and credible information which could address the strakeholders concerned as supported by stakeholder theory (Welford, 2007). Based on the reason mentioned above, the sub-committees of the boards also can be factor determinants of board effectiveness since their roles are now diversified for efficiency, accountability and transparency on any duty performed. One of the reason for their effectiveness is as a result of the size of the committees (Cohen, Hoitash, Krishnamoorthy, & Wright, 2014; Engel et al., 2010).

For accountability and accuracy therefore, companies form an audit committee, risk management committee, remuneration committee, environmental committee among others with the responsibility of compliance and transparency. These set of committees

of auditors are part of governance mechanism that monitor disclosure of an organizations which include social and environmental disclosure (Caskey et al, 2010).

According to SEC, every company operating in Nigeria must have at least one committee where audit committee is mandatory (Securities Exchange Commissions, 2011). The number of committees on board could play a significant role on disclosure of both financial and non-financial issues including the standard of the disclosure (Rodrigue et al., 2013). It is also argued that, number of committees could enhance the attention to disclosure issues which include both social and environmental. Moreover, more committees on board are expected to tackle many situations hence, could balance and control the companies which could improve the board efficiency and effectiveness (Hoitash, Hoitash, & Bedard, 2009).

Contrary to the expectation therefore, this study could not establish that an additional number of committee on board will bring about an increase/decrease on social and environmental disclosure quality. Thus any relationship seen in Table 6.10 previously is said to happen by chance only. This is as a result of the fact that majority of firms in Nigeria have two committees only instead of three and above as seen in Table 6.2. As argued by Hoitash, Hoitash and Bedard (2009) that the presence of few committees could also reduce those activities that are not up to standard on the said disclosure thus; the standard of reporting could be undervalued as a result of few committees' presence. However, the contradictory nature of the result could be explained by the need for a moderator since it was indicated earlier that there was

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mixed findings in previous researches (Ahmed & Duellman, 2007). Therefore, this study used modeartor to overcome the negative result which could be seen later in the study. After the moderation, the result is therefore expected to be positive and significant so as to be in line with the agency theory.

7.3.6 Relationship between Audit Committee Independence and CSEDQL

The relationship between audit committees independence and CSEDQL is positively significant with parameter 0.0259 as seen in Table 6.9. As earlier discussed in the literature, audit involve the step by step of ratifications of accountability and compliance of both financial and non-financial measures in line with rule of law set by an organization base on the guideline of the countries standard settings which in turn translate to transparency in such organization (Choi et al., 2010; Goodwin-Stewait & Kent, 2006). For accountability and accuracy therefore, companies form an audit committee with the responsibility of compliance and transparency. This committee of auditors is one aspect of governance mechanism that monitor disclosure of an organizations which include social and environmental disclosure (Goodwin-Stewait & Kent, 2006).

According to Securities and Exchange Commission of Nigeria, every company operating in Nigeria must have an audit committee which will also have at least one non-executive member on board (SEC, 2011). The number of non-executive members on board could play a significant role on disclosure of both financial and

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non-financial issues including the standard of the disclosure (Ho & Wong, 2001; Haniffa & Cooke, 2005). It is also argued that, the non-executive auditors in audit committee paid more attention to disclosure issues which include both social and environmental. In addition, non-executive directors are assume to be in a better situation to control and balance the activities of the committee which could improve the committee efficiency and effectiveness (Weir, Laing, & McKnight, 2002). It is important to note that, the audit committee independence does not mean an increase in the burden of audit committee rather is an indication of the level of independency of the committee which could play a role on the quality and quantity of disclosure. Their presence could also checkmate other activities that are suspicious in nature on the said disclosure thus; the standard of reporting could also be improved. Consequently, their presence is expected to improve the quality of the disclosure as per as social and environmental is concern.

Furthermore, this study confirmed that an additional non-executive auditor on the committee will bring about an increase on social and environmental disclosure quality. This as discussed earlier is seen the parameter of the ACI which is statistically significant. The result obtained can also be attributed to the fact that firms in Nigeria have high proportion of non-executive directors on audit committee which according to Barako et al. (2006) and Ho and Wong (2001) it imporve the disclsoure of social and environmetal details in addition to its quality. The result is also supported by the stakeholder and agency theory where the agency argued in

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favour of the audit committees since they represent the company and thus, want to protect the image of the companies in the eyes of its stakeholders.

7.4 Non-Executive Directors Ownership

The relationship between NBO and CSEDQL is negatively significant with parameter 7.4500 as seen in Table 6.9. The ownership of board is seen as the key influence on the decision making by the board of directors (Ahmed & Duellman, 2007). The more the board members own stock, the more likely they have keen interest on the activities of the company, thus, disclosure changes based on that interest (Brammer & Pavelin, 2008). The said ownership could be executive directors or non-executive directors and non-executive directors who have shares tend to play a significant role on the disclosure, in other words, they will protect the image of the company in the eyes of the stakeholders via pushing of transparency in the disclosure (Mak & Li, 2001; Akhtaruddin & Haron, 2010).

The ownership of the non-executive members of the board independence is also a key player on disclosure of information for both financial and non-financial in an annual report of company since there could be some element of control that could strengthen the relationship between the corporate governance mechanism (CGM) and the quality of disclosure. It is argued that, the non-executive directors that own stock in a firm paid more attention to disclosure issues which include both social and environmental ones as asserted by Haniffa and Cooke (2005). Some scholars

believed that, those non-executive directors with stock ownership are better yardstick in terms of disclosure issues and CGM. For example, Ang et al. (2000) suggested that, even though non-executive directors are expected to be the highest controlling mechanism on the board, their roles would be more effective if they have significant shares in the company.

As seen in the result the NBO is negatively statistically significant. Since the NBO is introduced as moderator therefore, is expected to strengthen the relationship of the variables concerned in respective of the direction of the relationship established between the NBO and CSDEQL. This can be argued that, the more the shares held by non-executive directors of a firm, the more they monitor the firms' management and performance thereby, resulting into increase on disclosure (Zattoni & Cuomo, 2010). Just like other CGM, the non-executive directors with stock ownership could also checkmate the disclosure of fraudulent activities and pay attention to standard of reporting. Thus, their actions expect to increase not only the disclosure but the quality of such disclosure where social and environmental issues are inclusive.

7.4.1 The Moderating Effect of Non-Executive Directors' Ownership on the relationship between Board Independence and CSEDQL

The moderating effect of non-executive directors' ownership on the relationship between board independence and CSEDQL is found to be positively significant with parameter of 1.8200 as seen in Table 6.9. This is because, previous literature established

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mixed results in the case of board independence and corporate social and environmental disclosure as discussed earlier. For example, Brammer and Pavelin (2006) could not able to establish a significant association on board independence and CED, other studies confirmed the presence of positive relationship between the ratio of non-executive directors and CED by Post, Rahman, and Rubow (2011). This is also confirmed by Huang and Kung (2010). Therefore, this study deduced the relationship among board independence and CED is mixed and that triggered moderation. In consistent with agency theory therefore, Mohd, Ghazali and Weetman (2006), argued that, the larger the amount of equity interests by the non-executive directors the greater the incentive for the directors to monitor the management hence, the more the disclosure thus, this study hypothesized that the positive relationship between board independence and CSEDQL is moderated by non-executive directors ownership.

Furthermore, this study confirmed that any additional interaction between non-executive director ownership and board independence will bring about increase on social and environmental disclosure quality *ceteris paribus*. This is because there is sufficient evidence to claim the said relationship as the p-value found is less than 10%. The result could be attributed to the fact that, Nigerian firms have a number of non-executive directors that owns a good number of shares hence, are expected to pay more attention to the disclosure of social and environmental issues so as to protect their investment. The result is also supported by stakeholder theory in addition to agency theory, where the result confirmed that, any increase in board independence in

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the presence of more non-executive directors who owns shares, will increase corporate social and environmental disclosure quality.

7.4.2 The Moderating Effect of Non-Executive Directors Ownership on the relationship between Board Size and CSEDQL

The moderating effect of non-executive directors' ownership on the relationship between board size and CSEDQL is found to be positive however, is insignificant with parameter of 1.6100 as seen in Table 6.9. This is as a result of yet another important mixed result established in the case of board size. For instance, while Cormier et al. (2011), Huang & Kung (2010) and Cormier, Ledoux and Magnan (2011) established positive relationship between board size and CED, some could not establish any relationship between board size and sustainability/CED (see Michelon & Parbonetti, 2012). Other studies also proved to establish a negative association between board sized and social and/or environmental disclosure (Arcay & Vazquez, 2005; Cormier et al., 2010). This is due to fact that, board size could control information flow as there will be variety of experienced and qualified directors as a result of their numbers on board as supported by stakeholder and agency theory. Therefore, this study deduced the relationship between board size and CSED, need to be moderated. Hence, this study hypothesized that the positive relationship between board size and CSEDQL is moderated by non-executive director's ownership.

In addition, this study could not confirm that any additional interaction between non-executive director ownership on board and board size will bring about increase on social and environmental disclosure quality. This is because there is no sufficient evidence to claim the said relationship as the p-value found is greater than 10%. This could be attributed to the number of board as many Nigerian companies have large board size hence, could lead to some difficulties in controlling their opinion and their decision (Michelon & Parbonetti, 2012). Due to their number however, the alteration of their report could not be simple as the board members could think their opinion represent the majority, thus, the non-executive directors who owns stock will find it difficult to intervene even if the opinion of the board is not in favour of the firm.

7.4.3 The Moderating Effect of Non-Executive Directors Ownership on the relationship between Board Meetings and CSEDQL

The moderating effect of non-executive directors' ownership on the relationship between board meetings and CSEDQL is found to be positive however, is insignificant with the value of 2.2900 parameter as shown in Table 6.9. This followed by established mixed result associated with board meetings which is yet important CGM. This is confirmed by Laksmana (2008) where a study is conducted on board meetings and found that, the more the meetings of the board the high the chance of transparency of an organization. In order words, there is sufficient evidence of positive relationship between frequency of board meetings and voluntary disclosure

(CSED inclusive). Nevertheless, in their analysis, Cormier et al. (2010) found no evidence of relationship between board meetings regularly and voluntary CED.

In line agency theory therefore, Mohd et al. (2006) argued that, the larger the amount of equity interests by the non-executive directors the greater the incentive for the directors to monitor the management hence, the more the disclosure therefore, this study hypothesized that non-executive directors ownership moderates the relationship between board meetings and CSEDQL. In addition, stakeholder theory also give support on the non-executive directors role on disclosure which support same direction. Thus, this study expects stronger relationship as postulated in hypothesis 7c. Thus, the relationship between BM and CSEDQL is more effective when non-executive director's ownership is introduced.

The result could not established the so, therefore, the result of the study did not support hypothesis 7c. This could be attributed to the low number of board meetings by Nigerian companies where most of the companies have only have three with even some two meetings which below the standard of the Securities and Exchange Commission of Nigeria. This lead to some low reporting hence their performance could also be insignificant. Due to the low turnout of the board meetings therefore, the non-executive directors who owns stock will definitely have low input and even if the non-executive directors have more input that depends on the board meetings as is only where a meeting held other issues could be deliberated hence, the disclosure can

be considered. Therefore, the insignificancies of the moderation can be explained by the low number of meetings annually by listed firms in Nigeria.

7.4.4 The Moderating Effect of Non-Executive Directors Ownership on the relationship between Directors' Qualifications and CSEDQL

The moderating effect of non-executive directors' ownership on the relationship between directors' qualifications and CSEDQL is found to be positive however, is insignificant with the parameter of 6.5400 as shown in Table 6.9. The relationship between the director's qualifications and CSEDQL is also found to be mixed. For instance, Haniffa and Cooke (2000) conducted a study in Malaysia but on voluntary disclosure generally and established an insignificant association however, Barako, Hancock and Izan (2006) found the relationship between the number of board members with accounting and/or business with voluntary disclosure to be significantly positive. This is also in line many studies that proposed the larger the qualified members on board the more possibility for competency of the board members hence, the more the disclosure (Lim et al., 2007).

Furthermore, this study found no significant interaction on the relationship between directors' qualifications and CSEDQL even though there is slide improvement in the parameters obtained from the interaction on the said relationship which is 6.54 as against the direct relationship of 0.0027, the said relationship is said to happen by chance. This can be explained by looking at the composition of board members in

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relation tom their qualifications among listed firms in Nigeria. Majority of the board members of the firms have other qualifications other than those mentioned to be qualified for decision making on social and environmental disclosure quality. Due to low qualified members on board therefore, there is high tendency that the CSEDQL will also be low (Welford, 2007) and this is confirmed by this study from the insignificant moderating relationship found. The study is consistent with the stakeholder and agency theory where the theories supported that, the more the qualified directors, the more the quality of corporate social and environmental disclosure. Since, members of the board have low qualifications to determine disclosure issue therefore, the non-executive directors' that own shares have limited role to play on the board members as their opinion could be trashed by the board members due to fact that, they lack knowledge on disclosure issues.

7.4.5 The Moderating Effect of Non-Executive Directors Ownership on the relationship between Board Committees and CSEDQL

The moderating effect of non-executive directors' ownership on the relationship between board committees and CSEDQL is found to be positively significant with parameter of 7.7000 as seen in Table 6.9. This could be attributed to the fact that, many studies found contradicted results on the relationship between board committees and social/environmental disclosure. For instance while, McKendall et al. (1999), Michelon and Parbonetti (2012) could not establish an association between the presence of social responsibility committee and disclosure, Peters and Romi (2014)

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reported a positive relationship between the CER committee presence and CED among other committees. In addition, Hassan and Ibrahim (2012) documented a positive linked between the presence of committees and quantity and the quality of CSD. As earlier stated, Mohd, Ghazali and Weetman (2006), argued that, the larger the amount of equity interests by the non-executive directors the greater the incentive for the directors to monitor the management hence, the more the disclosure.

As stated earlier, this study found a significant positive moderation of non-executive directors' ownership on the relationship between board committees and CSEDQL. This could be attributed to the level of committees among the listed firms in Nigeria as majority of the firms meet the requirements of the Securities and Exchange Commission of Nigeria. The non-executive directors that own stock in the company can participate in various committees formed thus could monitor the activities of the committees due to their presence in those committees. It is important to note that, the participation of non-executive directors that own stock in the company depends on the number of committees considered in the firms. When committees are high their participation could be high and vice versa. Thus, this study found an evidence that the more the interaction between non-executive directors' ownership and board committees, the more the corporate social and environmental disclosure quality. The result found is also supported by the stakeholder and agency theory as stipulated in the direct relationship.

7.4.6 The Moderating Effect of Non-Executive Directors Ownership on the relationship between Audit Committee Independence and CSEDQL

The moderating effect of non-executive directors' ownership on the relationship between audit committee independence and CSEDQL is found to be positively significant with parameter of 6.7300 as seen in Table 6.9. The committee of auditors is one aspect of governance mechanism that monitor disclosure of an organizations which include social and environmental disclosure (Goodwin-Stewait & Kent, 2006). Previous literature on the relationship between audit committee independence and CSEDQL established mixed findings for example, some studies empirically shows that there is positive relationship between audit committee independence and the disclosure but voluntary disclosure (Barako et al., 2006; Ho & Shun Wong, 2001) while O'Sullivan, Percy and Stewart (2007) disclosed that the presence of audit committee, the independence of such committee will impact the forward looking details of disclosure positively and to some extent no relationship.

Furthermore, this study confirmed that an additional interaction of non-executive auditor on the committee and non-executive director's ownership will bring about an increase on social and environmental disclosure quality in line with the stakeholder and agency theory. This is seen in the parameter of ACI*NBO found in table 6.10 above. The said relationship is statistically significant. Base on the established result, this study conclude that one increase in interaction of non-executive director's ownership and audit committee independence will increase CSED quality by 6.7

ceteris paribus. This is because most of the listed firms in Nigeria have at least 50% representation of non-executive directors in audit committee as required by the Nigerian Securities and Exchange Commissions. Thus, their role as non-executive directors can be of high value since they will exercise their independency to defend the firms at maximum as possible (Robinso & Owens-Jackson, 2010).

In addition, there is need to increase the number of non-executive directors in the audit committee based on the the result. Thus, additional of non-executive directors do not increase the burden of the audit committee, rather it makes the committee to be more independent in their decision which could improve CSED.

7.5 Research Summary

This study employed stakeholders' and agency theory to established the impact of CGM on CSED quality among listed firms in Nigeria between 2010 and 2014. This is coupled with the examination of the role of non-executive director's ownership on the established relationships. In doing that, an alternate hypothesis were formulated against the explanatory variables of the model among which board independence, board size, board meetings, director's qualifications, board committees and finally audit committee independence were examine individually in relation to corporate social and environmental disclosure quality. In addition, the study also examines the role of the non-executive director's ownership on the relationship between BI and CSEDQL, BS and CSEDQL, BM and CSEDQL, DQ and CSEDQL, BC and

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CSEDQL and finally ACI and CSEDQL. Other variables included in the study are the control variables which include firm's size, industry and profitability.

The model of the study is said to be moderately fitted as the R-square value of the model is approximately 27% which means that BI, BS, BM, DQ, BC and ACI are jointly accounted for 27% changes in CSEDQL among Nigerian listed firms. The Adjusted R-square value also signifies that, the whole explanatory variables including the number of observations of 500 items jointly explained 25% changes in corporate social and environmental disclosure quality. The model is assume to be moderately fitted as the R-square is greater 10% in the case of panel data study (Gujarati, 2004).

In the process of conducting this study, the result found a significant positive relationship between board independence and environmental disclosure and is in line with Post, Rahman, and Rubow (2011) and Huang and Kung (2010). Hence, the study confirmed that any additional non-executive director on board will bring about increase on social and environmental disclosure quality and as discussed earlier is statistically significant hence, this study conclude that one increase in board independence will increase corporate social and environmental disclosure quality. This is in line with the proposed hypothesis where it indicates that there is positive relationship between board independence and CSEDQL among listed firms in Nigeria.

Additionally, the relationship established between board size and CSEDQL is said to be positively significant at 1%. Thus, the alternate hypothesis that said there is relationship between board size and corporate social and environmental disclosure quality is supported due to the sufficient evidence found in favour of the hypothesis. This is in line with the proposed hypothesis where it indicate that there is positive relationship between board size and CSEDQL among listed firms in Nigeria. Hence, increase in member of the board will increase corporate social and environmental disclosure quality since; the result against the relationship is significant.

However, contrary to the expectation of this study on the positive relationship between board meetings and corporate social and environmental disclosure quality, the result found is negative. Yet, the relationship so established is significant. Therefore, the said relationship is weak significant. Hence; the result supports the relationship between board meetings and corporate social and environmental disclosure quality. The proposed hypothesis that postulates that there is positive relationship between board meetings and corporate social and environmental disclosure quality is supported subject to the moderating effect simply because of the negative parameter.

Moreover, the study established beyond reasonable doubt that there is positive relationship postulated against the directors' qualifications and social and environmental disclosure quality. This is because, the relationship shown is significant hence, the result shown in Table 6.9 in respect of the said relationship is in

line with the postulated hypothesis of the study. Base on the sufficient evidence found the study conclude that an increase in one of the director's with either accounting, finance or even economics will increase corporate social and environmental disclosure thus the hypothesis is thereby supported. Therefore, the hypothesis in respect of director's qualifications and CSEDQL is supported base on the sufficient evidence found.

On the other hand, contrary to the expectation of this study, the positive relationship between board committees and corporate social and environmental disclosure quality is not supported. The result of the study found negative insignificant relationship. Since, the relationship so established is negative as against the postulated hypothesis therefore, moderation was considered.

Furthermore, this study established beyond reasonable doubt that, there is positive relationship between audit committees independence and social and environmental disclosure quality. This is because, the relationship obtained is significant therefore, the result obtained in respect of the said relationship is said to be in consistent with the postulated hypothesis of the study and thereby supported. Therefore, the alternate hypothesis in respect of audit committees and CSEDQL is supported base on the sufficient evidence gathered. Thus, any additional increase in the non-executive member of audit committee will significantly increase corporate social and environmental disclosure quality.

The above explanations are all in the case of direct relationships meanwhile a moderating variable called non-executive directors ownership is introduced to strengthen the direct relationship discussed above. Therefore, the study conducted the interactive relationship between non-executive director's ownership and board independence in relation to CSEDQL, non-executive director's ownership and board size in relation to CSEDQL, non-executive director's ownership and board meetings in relation to CSEDQL, non-executive director's ownership and director's qualifications in relation to CSEDQL, non-executive director's ownership and board committees in relation to CSEDQL and finally, non-executive director's ownership and audit committee independence in relation to CSEDQL.

Even though there was a significant positive relationship between board size and CSEQL however, there was clear indication of stronger positive relationship as compare to the previous parameter found in the direct relationship with sufficient evidence to back the said interaction. The study found the higher the interaction of non-executive director's ownership and independent directors on board the higher the CSEDQL as supported by stakeholders and agency theory. Thus, one increase in the interaction of non-executive director's ownership and board independence will bring about 1.82 increase in CSEDQL with the econometric assumption of other things remain constant.

In the case of board size, as a significant positive relationship between board size and CSEQL was established, the interaction was positive and there improvement in the

parameter as compare to the previous parameter found in the direct relationship. Despite the increase in the parameter, the study could not found sufficient evidence to back the said interaction. Therefore, the hypothesis of the study that postulate the higher the interaction of non-executive director's ownership and board size the higher the CSEDQL could not be supported. Even though the parameter shows that one increase in the interaction of non-executive director's ownership and board size will bring about 1.61 increases in CSEDQL, is still not statistically significant hence, the relationship happened by chance.

In addition to the previous direct relationship found, board meetings was found to be negatively related to CSEDQL and statistically significant as oppose to the postulated positive relationship between board meetings and CSEDQL. This is one of the relationships that are needed to be comparing with the moderating parameter. As the interaction was positive is welcoming development since it was clearly supporting the postulated hypothesis both in the direct and the interactive relationship. Despite having a positive parameter as oppose to the direct relationship, the study could not found sufficient evidence to back the said interaction. Therefore, the hypothesis of the study that postulate the higher the interaction of non-executive director's ownership and board meetings the higher the CSEDQL could not be supported.

Whereas directors' qualifications has a significant positive relationship with CSEDQL as established in the direct relationship, the interaction was also positive and there is improvement in the parameter as compare to the previous parameter

found in the direct relationship. Despite the increase in the parameter however, the study could not found sufficient evidence to back the said interaction. Therefore, the hypothesis of the study that postulate the higher the interaction of directors' qualifications the higher the CSEDQL could not be supported. Even though the parameter shows that one increase in the interaction of directors' qualifications will bring about 6.54 increases in CSEDQL thus, is not statistically significant hence, the relationship happened by chance.

Unlike board meetings, board committees also have a direct negative and significant relationship with CSEDQL however, the interactive relationship found between the non-executive director's ownership and board committees with CSEDQL is positive and statistically significant. This justified the use of the moderator as the relationship found in the direct hypothesis is against the proposed hypothesis of the study. Thus, the moderating relationship is quite important for this study. This is because, it supported both the direct and the moderating hypothesis proposed by the study. Therefore, the hypothesis of the study that postulate the higher the interaction of non-executive director's ownership and board committees the higher the CSEDQL is thereby supported. That means one increase in the interaction of non-executive director's ownership and board committees will bring about 7.7 increases in CSEDQL since is statistically significant.

Audit committee on the other hand, has as a significant positive relationship with CSEQL directly and at the same time the interaction is positive and significant.

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Comparing the two relationship found, there is improvement in the parameter as compare to the previous parameter found in the direct relationship. This is in addition to the level of significant base on that, this study found sufficient evidence to back the said interaction. Therefore, the hypothesis of the study that postulate the higher the interaction of non-executive director's ownership and audit committee independence the higher the CSEDQL is supported. This is seen in the parameter which indicates that one increase in the interaction of non-executive director's ownership and audit committee independence will bring about 6.73 increases in CSEDQL with the economic assumption of other things remain constant.

7.6 Research Implications and Recommendations

The study play an important role on the theoretical, practical and methodological aspect where by the literature is enhanced base on all the CGM and corporate social and environmental disclosure quality.

7.6.1 Theoretical Implications

There are two theories considered by the study, namely; stakeholder theory and agency theory which best explained the relationship among the individual explanatory variables derived from the CGM and the predicted variable CSEDQL. Furthermore, the reason for the use stakeholder's theory and agency theory on corporate governance perspective in relation CSED quality is because, stakeholder's

theory takes account of the stakeholders concerned and their agitations, while the agency theory carter the dissemination of information between the companies and its stakeholders.

Based on the findings of the study, board independence, board size, director's qualification and audit committees independence are found to individually influence the quality of corporate social and environmental disclosure in Nigeria as they are significant and they were fully supported by the theories.

Also, the study employed non-executive director's ownership as moderator which added more value to the existing literature. This is because, as the non-executive members owns shares they are expected to pay more attention to the activities of the company and the reputation of the said company as well since they have an interest to pursue.

In addition, the interaction between non-executive director's ownership and board independence, non-executive director's ownership and board committees and finally the non-executive director's ownership and audit committee independence are found to be significant in explaining changes in the quality of corporate social and environmental disclosure in Nigeria. Empirically, the study improved the governance issues especially at this crucial time where so many companies are facing governance challenges.

7.6.2 Practical Implications

The Ministry of Environment can use the findings in a manner suitable to them since the study focused not only on the disclosure but also the quality of the disclosure hence, it will make the said ministry to pay attention on the quality of social and environmental disclosure since it is significant in the case of its stake holders. The stakeholders include host communities and corporate bodies where they can benefit from the findings in the formulation of appropriate CSED determinants. Through the ministry of environment in addition, environmentalist can benefit from the findings through understanding the characteristics of a firm that discloses social and environmental issues and how it performed. Government of Nigeria can engage both local and foreign investors to comply in line with the findings and operate base on the nature of companies as to whether the firm is socially and environmentally friendly or not. They can invest their savings to maximise returns. Government and other Policy makers like SEC and Central Bank of Nigeria (CBN) can understand through the findings the clear effect of economic policies to the sectors under study. From the findings, they can get useful information for the determination of appropriate social and environmental policy to the economy.

Furthermore, the study targeted and enlightens audience as employees of the company, shareholders of the firm, the media, both local and international, environmentalist, trade and industry associations and customers where they will find this study suitable for any debatable policy at hand when their action is needed.

Others are the suppliers, environmental regulators, local communities, science and education (Singh, 1996) which are in one way or the other part of policy makers be it now or later on. Managers of companies involved can also find this study contributory since is expected to provide more insight on the problem of governance and the quality of CSED. Professional bodies such as Institute of Chartered Accountant of Nigeria (ICAN), Association of National Accountants of Nigeria (ANAN), Chartered Institute of Management Accountant (CIMA) can also benefit from the outcome of this study since they rely on financial disclosure of companies for their opinion and auditing. This is in addition to the curriculum of those professional bodies as from time to time changes with the current challenge, hence they can put the result of this study into consideration as to where and when to introduce or remove a particular variable of concerned. Finally, the finding will provide potential researchers with areas for further study.

7.6.3 Methodological Implications

The study used a GRI checklist to measure CSEDQL as a contribution in the research this is done using un-weighted index where it filled the gap in CSEDQL literature. In addition, the study contributed on the quality of social disclosure, environmental disclosure and both including their measurement which in turn improves on sustainability among companies in Nigeria.

The study also extends the data from the usual cross sectional to panel where five years were considered for the analysis. It also takes into account of the techniques of data analysis as the study deemed it necessary to utilise Feasible Generalised Least Square as opposed to usual panel regression. This is due to failure on the assumptions of ordinary regression analysis and the Feasible Generalised least Square regression best explain the parameters in questions than other techniques of analysis. Therefore, the study finds that as a contribution as many studies either used ordinary Least Square or Panel regression and not Cross Sectional Time Series also known as Feasible Generalised Least Square, regression.

Furthermore, the methodology is also a keen in the aspect of this research where, as earlier stated, Feasible Generalised Least Square is utilised as a result of the inefficiency of Ordinary Least Square versus Random Effect model and Fixed Effect model simply because of the presence of heteroskedaticity and autocorrelation. Whereas the parameters obtained if OLS, Random or Fixed effect is used, could not achieve Best Linear Unbiased Estimate. Thus, this could hinder the use of the findings for generalisation.

7.7 Limitations of the Study

The study suffered some limitations among which the number of listed companies as at the time of this study stood at 203 but only 100 companies are considered. This is because, many companies' financial report and accounts are not available and some

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of the reports available could not provide the information needed for this study. Hence, in the process, this study found only 100 companies suitable for this study.

The study involves only the internal CGM whereas external governance mechanisms were excluded. The study also used the social and environmental disclosure as one. This is due to the inadequacy of information from the listed companies in Nigeria and there is no separations of information in regard to social and environmental in Nigerian financial reports of the firms.

Despite these limitation however, the value of the study can said to be observed as the study use rigorous method of measurement and proper establishment of the findings and adequate observations is considered. Therefore, the study conclude that, the limitation could not hinder the validation of this study but can only be improve if those limitations are considered.

7.8 Further Area of Research

Further study can improve this study by including more explanatory variables in addition to the number of companies. Since this study only used seven explanatory variables including moderator, other studies can increase it as the more the variables of the model the more the fitness of the model hence, the study can better be generalised. The inclusion of external CG variables such as regulators of the

companies, the government and the financial institutions can also be considered in the new model thereby increasing the validity of the new model.

In terms of observation, however, other studies can go beyond five years as this study only considered five years as from time to time challenge emanates due to some government policies, economic conditions, international engagements among others. As seen in the study two theories were considered, therefore, other studies can bring an additional theory that may best explained the relationship if any.

Depend on the country one is conducting research, further studies can also separate social from environmental disclosure. In the case of Nigeria as the time of conducting the study there may be more information for the country which could be improved to meet the world standard.

7.9 Conclusion

This study aimed at establishing the moderating effect of non-executive ownership on the relationship between CGM and corporate social and environmental disclosure quality. This is because, there is limited studies in this area globally and specifically in Nigeria. In addition to this motivation of this study, others are, limited research conducted with broad governance indicators in Africa particularly Nigeria, over concentration of CSED volume instead of the CSED quality, the use of small samples by previous studies addition to its homogeneity, thus, leading to some

constraints on the dimension of the firm and the composition of the industry, the frequent use of cross-sectional data and that could not explain the trend of the CSED.

Meanwhile, practical issues that lead to this study is the agitations and conflicts of stakeholders and the complains Federal Government of Nigeria on the degradation on environment, the issue of global warming and low reporting issues relating to social and environmental disclosure among firms in Nigeria. In the process of addressing the problems, however, the relationship between CGM and CSEDQL is established in this study.

According to Global Reporting Initiative, (2011) corporate social and environmental disclosure quality is measured and concerned base on disclosure of human resource, consumers' issues, community with stakeholders concern, training and development of employees, issues of employees health and safety, non-discriminant opportunity, wage related issues, labelling of product, communication, complaints, local community involvement, corruption control, concern for public policy and law compliance, usage of materials and recycling, energy consumption, water consumption, control of emissions, control of wastages and finally products related environmental effects.

While CGM refers to those elements, controls and measures put in place to govern firm activities and control of disclosure issues thus, is compose of board independence, board size, board meetings, directors' qualifications, board

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committees, audit committee independence and non-executive director's ownership (Adegbite & Nakajima, 2011).

The study also used stakeholders' theory to support the dependent variable CSEDQL while agency theory is used to support the independent variables, which include board independence, board size, board meetings, directors' qualifications, board committees, audit committee independence and non-executive director's ownership. As earlier stated, this study aimed at establishing the role of non-executive director's ownership on the relationship between CGM and CSEDQL as a result of the inconsistencies found previously on the said said relationships. Based on the problem statement, the study raised three questions as based on the trend of CSED quality in Nigerian listed companies for the period 2010 to 2014, the relationship between corporate governance mechanism and corporate social and environmental disclosure quality in Nigerian listed companies and finally, the moderating effect of non-executive director's ownership on the relationship between CGM and CSED quality in Nigerian listed companies. From the questions raised, three objective were determined to be addressed in this study which include the evaluation of the trend of CSED quality in Nigerian listed companies for the period 2010 to 2014, the investigation of the relationship between corporate governance mechanism and corporate social and environmental disclosure quality in Nigerian listed companies and finally, the determination of the moderating effect of non-executive director's ownership on the relationship between CGM and CSED quality in Nigerian listed companies.

In conclusion, this study conducted a trend analysis on the CSEDQL as seen in Figure 6.1 which addressed objective one. The trend of the analysis shows an improvement on the quality of disclosure on CSED especially in 2013 and 2014 with the lowest trend in 2011. To address objective two and three therefore, this study postulated twelve hypotheses among which six which are direct relationship addressed objective two and the other six hypotheses are the interactive relationships where they addressed objective three. Out of the direct relationships five are significant with only one that is insignificant. The significant ones include board size, board independence, audit committee independence and director's qualifications, thus, these hypotheses are said to be supported. Meanwhile, board meeting is negatively significant which oppose the study hypothesis and this can be ignored provided the interaction yield positive relationship as seen in the study. Board committees on the other hand, has negative parameter, however is insignificant.

Meanwhile, out of the six interactive relationships proposed, three which represents 50% are significant and the other three are not significant. Among the significant ones are board independence and non-executive director's ownership, audit committee independence and non-executive director's ownership and board committees and non-executive director's ownership. The other three that are not significant in this study are board size and non-executive director's ownership, board meetings and non-executive director's ownership and directors' qualifications and non-executive director's ownership. It is important to note that, all the parameters of

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the interactive relationships are positive in one way or the other all the direct relationship are improved from those with negative relationship and turn to positive relationship after moderation and those that maintained the positive relationships, their parameters were improved as established in this study. This is an indication that, the moderator plays a significant role in the establishment of the relationships.

The study utilised two theories, stakeholders and agency theory to support the argument hence, the hypotheses. The outcome of the study is also in line with the theories. The model of the study also indicates a moderate fitness derived from the R-square of the model. Most importantly, all the explanatory variables, which include board independence, board size, board meetings, director's qualifications, board committees and audit committee independence were jointly and significantly impacted on the explained variable CSED quality.

Based on the findings of the study, therefore, this study recommends that, the size of the board should be increased provided there is need for CSED quality among which there should be more non-executive directors on board for better independence and transparency. The board should also increase their meetings so as to give more room for discussion on matters arising and to tackle any unforeseen circumstances that may arise and this will make the CSEDQL better. Similarly, there is need for more qualified directors on board so that quality of CSED will be more better as seen in the earlier discussion. In doing so, the Nigerian SEC should make sure that, qualified

directors with financial expertise are considered first since it is part of their objective.

Other important issues are board committees and audit committee independence. The study seen the need to improve board committees so that, the committees can handle various issue professionally and with less burden on the directors hence, the quality of CSED could improve. Another important issue which is mandotary according to Nigerian SEC is audit committee and their independence. There is need to increase the number of non-executive directors in the audit committee since the result shows that the more the ratio of non-executive directors in audit committee, the more the CSED quality. It is important to note that, an additional of non-executive directors do not increase the burden of the audit committee, rather it makes the committee to be more independence in their decision which could improve disclosure quality in the case of this study CSED quality.

Based on the recommendation of the study in the preceding paragraphs , therefore the above study is said to have some implications theoretically, by considering the stakeholders and agency theory, methodologically, by considering the measurement of the CSED quality using GRI checklist and the use of panel data in the analysis, practically, institutions such as CBN, SEC Nigeria, Ministry of Environment, NGOs and other stakeholders will benefit from the findings of the study.

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Appendix A: Summary of Literature

Authors	Countries	Year of Study	Sample Size	Technique	Dependent Variable	Independent Variable	Findings
Clerkson, Li, Richardson, Vasvariet	USA	2008	122	OLS	Environmental Disclosure	Environmental Performance	There is positive relationship
Cromier, Ledoux, Magnan and Aerts	Canada	2010	131	Panel Regression	Governance Disclosure	Board independence, Board Size, Firm Size, Audit Committee, and Board Meeting	Board independence and Firm Size have positive significant relationship while Board Size and Audit Committee have negative significant relationship and board meeting with No relationship
Laksmana	S & P 500 around the globe	2008	232	OLS	Voluntary Disclosure (CSED inclusive)	Board Independence, Board Size, Board Meeting	All the independence variable have positive significant relationship
Cormier, Ledoux and Magnan	Canada	2004 and 2005	137	OLS	Social & Environmental Disclosure	Board Independence, Board Size, Firm Size, Audit Committee and Profitability	The entire independence variable has positive significant relationship with the exception of profitability which has negative relationship.

Authors	Countries	Year of Study	Sample Size	Technique	Dependent Variable	Independent Variable	Findings
Arcay and Vazquez	Spain	2005	91	ANOVA	Voluntary Disclosure (CSED inclusive)	Board Independence, Board Size, Firm Size, Audit Committee,	Board independence, Firm Size and Audit Committee have positive significant relationship while Board Size and have negative significant relationship
Michelon and Parboneti	Denmark, Finland, France, Germany, Netherlands, Sweden, Spain, Switzerland, UK and US	2012	114	OLS	CSR	Board Independence and Audit Committee	All the independence variable have positive significant relationship
Ho and Williams	South Africa, Sweden and UK	2003	286	OLS	Voluntary Disclosure (CSED inclusive)	Board Independence and Board Size	All the independence variable have positive significant relationship
Brammer and Pavelin	UK	2008	450	Panel Regression	CED	Board Independence, Firm Size and Profitability	All but only board independence, have positive significant relationship. Whereas the later has no relationship

Authors	Countries	Year of Study	Sample Size	Technique	Dependent Variable	Independent Variable	Findings
Ioannou and Serafein	China, Malaysia, Denmark and South Africa	2014	10,000	Panel Regression	Environmental, Social and Governmental Disclosure	Firm Size and Profitability	All the independence variable have positive significant relationship
Chou, Ching And Yin	Taiwan	2013	661	OLS	Voluntary Disclosure (CSED inclusive)	Board Independence and Board meeting	All the independence variable have positive significant relationship
Nelson, Gallery and Percy	Australia	2010	115	Panel Regression	Voluntary Disclosure (Executive Stock Option and CSED inclusive)	Board Independence, Board Meeting and Audit Committee Independence	All the independence variable have positive significant relationship but only board independence which has negative relationship
Peters and Romi	Carbon Disclosure Projects Around the Globe	2013	1238	Probit Regression	Emission Disclosure (Environmental)	Environmental Commission and Firm Size	All the independence variable have positive significant relationship

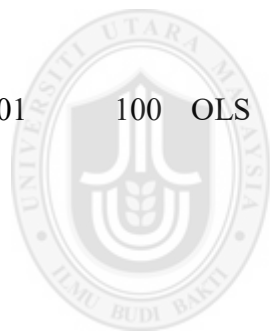| Authors	Countries	Year of Study	Sample Size	Technique	Dependent Variable	Independent Variable	Findings
Cowen, Ferreri and Parker	United States of America	1987	134	OLS	CSR	Firm Size, Profitability, Industry and CSEC	All the independence variable have positive significant relationship but only profitability which has no relationship
Rodrigue, Magnan and Cho	United States of America	2013	219	Pooled Logistics Regression	Postulations and Environmental Performance	Environmental commission, Firm Size and Profitability	All the independence variable have no significant relationship but only firm size which has no relationship
Hassan and Ibrahim	Kingdom United	2012	100	Statistics Descriptive	CED	Management System and Industry Environmental	All the independence variable have positive significant relationship
Akhtaruddin, Hossain, Hassan and Yao	Malaysia	2009	105	OLS	Voluntary Disclosure (Include CSED)	Outside Board Ownership, Board Size, Board Independence, Audit Committee, Firm Size and Profitability	All the independence variable have positive significant relationship but only audit committee which has no relationship

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Authors	Countries	Year of Study	Sample Size	Technique	Dependent Variable	Independent Variable	Findings
Donelly and Mulcahy	Ireland	2008	51	OLS	Voluntary Disclosure (Include CSED)	Managerial Ownership, Board Independence, Board Size and Firm Size	All the independence variable have positive significant relationship but only managerial ownership which has no relationship
Akhtaruddin and Haron	Malaysia	2010	124	Hierarchical Regression	Voluntary Disclosure (Include Financial and CSED)	Board Ownership, Board Independence, Firm Size and Audit Committee	All the independence variable have positive significant relationship but only board ownership which has negative relationship
Said, Zainuddin and Haron	Malaysia	2009	150	Hierarchical Regression	CSR	Managerial Ownership, Board Size, Board Independence, Audit Committee, Firm Size and Profitability	All the independence variable have positive significant relationship

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Authors	Countries	Year of Study	Sample Size	Technique	Dependent Variable	Independent Variable	Findings
Said, Zainuddin and Haron	Malaysia	2009	150	Hierarchical Regression	CSR	Managerial Ownership, Board Size, Board Independence, Audit Committee, Firm Size and Profitability	All the independence variable have positive significant relationship
Liao, Luo and Tang	United Kingdom	2014	329	Probit Regression	Green Gas Disclosure (Environmental)	Environmental Commission, Board Size, Board Independence, Board Meeting, Firm Size and Profitability	All the independence variable have positive significant relationship but profitability has negative relationship and board meeting has no relationship
Ahmed and Duellman	United States of America	2007	306	OLS	Disclosure of Accounting Conservatism	Board Size, and Outside Board Ownership	All the independence variable have positive significant relationship

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Authors	Countries	Year of Study	Sample Size	Technique	Dependent Variable	Independent Variable	Findings
Liao, Luo and Tang	United Kingdom	2014	329	Probit Regression	Green Gas Disclosure (Environmental)	Environmental Commission, Board Size, Board Independence, Board Meeting, Firm Size and Profitability	All the independence variable have positive significant relationship but profitability has negative relationship and board meeting has no relationship
Bozolon and Pevelin	Spain, Sweden, Hungry and Turkey	1990	150	OLS	CSR	Board Size, Audit Committee Independence, Firm Size and CER	All the independence variable have positive significant relationship but firm size has negative relationship
Cheng, Courtney and Kris	Singapore	2006	104	OLS	Voluntary Disclosure (CSED inclusive)	Board Independence	All the models have positive significant relationship with the independent variable
Eng and Mak	Singapore	2003	158	OLS	Voluntary Disclosure (CSED inclusive)	Board Independence and Firm Size	All the models have positive significant relationship with firm size and negative relationship with board independence

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Authors	Countries	Year of Study	Sample Size	Technique	Dependent Variable	Independent Variable	Findings
Huafang	China	2007	526	OLS	CED	Board Independence and Firm Size	All the models have positive significant relationship with the independent variables
Huafang and Kung	China	2010	759	Panel Regression	CED	Board Independence and Firm Size	All the models have positive significant relationship with the independent variables
Lim, Matolecy and Chow	Australia	2007	181	OLS	Voluntary Disclosure (CSED inclusive)	Board Independence, Board Size, Industry and Firm Size	All the independence variable have positive significant relationship but industry has negative relationship
Barako, Hancock and Izan	Kenya	2006	38	OLS	Voluntary Disclosure (CSED inclusive)	Board Independence, Audit Committee and Profitability	Board independence have has negative relationship, audit committee has positive relationship and profitability has no relationship
Barako and Brown	Kenya	2008	40	OLS	CSR	Board Independence	Board independence have has positive relationship
Hannifa and Cooke	Malaysia	2002	167	OLS	Voluntary Disclosure (CSED inclusive)	Board Independence, Qualification, Industry, Profitability and Firm Size	All the independence variable have positive significant relationship but industry and board independence have negative relationship

Authors	Countries	Year of Study	Sample Size	Technique	Dependent Variable	Independent Variable	Findings
Michelon and Parboneti	USA and Europe	2010	114	OLS	Sustainability Disclosure	Board Independence and CER committee	While Board Independence has no relationship, CER committee have positive relationship
Gray, Javad, Power and Sinclair	United Kingdom	2001	100	OLS	CSD	Board Size, Industry and Profitability	Evidence of positive significant relationship for all the independent variables
Gray, Javad, Power and Sinclair	United Kingdom	2001	100	OLS	CSD	Board Size, Industry and Profitability	Evidence of positive significant relationship for all the independent variables

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