CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The International Accounting Standard Board (IASB) considers the main aim of financial reporting as providing useful information for the satisfaction of all stakeholders (IASB, 2015).Accordingly, management is required to convey non-financial information that goes beyond what is traditionally contained in quantitative disclosure of the annual report. In essence, the financial reporting is expected to include both financial (quantitative) and non-financial (qualitative) information thereby disclosing issues relating to companies' social and environment, corporate governance, the society, human rights, corporate risks and uncertainties (Sierra-Garcia, Garcia-Benau & Bollas-Araya, 2018). Inadequate information disclosure would result to inability of existing and potential investors, including lenders and other stakeholders the opportunity to adequately appraise the company for decision making purposes (Serrasqueiro & Mineiro, 2018). A recent study by Ernst and Young (2017) portrays the major significance of non-financial information to users, and pointed out that about 68% of investors acknowledged making use of such reports in reaching their investment decisions.

Donovan, Jennings, Koharki and Lee (2018,) define non-financial information "as any data that is non-numerical in nature". Mohamad, Salleh, Ismail and Chek (2014) view non-financial information disclosure to include information such as corporate social and environmental disclosure (CSED), Intellectual Capital (IC) disclosure, Risk Management (RM) disclosure and Corporate Governance (CG) mechanism disclosure. The availability of these non-financial disclosures in annual reports improve

information transparency, reduce information asymmetry and are therefore an issue of tremendous importance in economies throughout the world (Maroun 2017). Hence, a growing number of organisations have realized the importance of non financial disclosure and are publishing voluntary information as a strategic tool that fundamentally improves the communication of organisations with their stakeholders and carries incremental information about a firm's potentials (Franke, 2018). The non-financial reporting trend is expected to continue and grow as corporate stakeholders demand more information concerning environmental, social, and governance impacts. At the same time, finance is undergoing a small revolution. The Environmental Social and Governance (ESG) investing has risen immensely in importance during recent years as a response to investors increasing awareness of it's relevance in decision making. It is now considered a wise strategy investment when investment decisions are based on the Global Sustainable Investment Alliance (GSIA) or Global Reporting Initiative ESG Scores or criteria. Hence, understanding the importance of sustainability accounting plays a pivotal role in offering stakeholders information that is more reliable and accurate. The Global Reporting Initiative (GRI) guidelines, since their pilot version, have been characterized by the presence of indicators built to show the relationship between company's economic, social and environmental performance and company's characteristics. In line with this, a number of countries have enacted mandatory requirements for firms to report on non-financial issues. For instance, France, Spain, the Netherlands, the United Kingdom, Sweden and Denmark have all introduced legal requirements to enlarge the scope of conventional corporate reporting to include non-financial performance parameters (Eccles & Krzus, 2009). Emerging stock exchange markets are equally not left out in the move to promote non financial

information disclosure. For example, stock exchange markets of Brazil, China, Egypt, India, Indonesia, Malaysia, and South Africa also launched non-financial disclosure rules in recent years (Eccles & Krzus, 2009; Alobo & Udungeri, 2018).

The need for non financial information disclosure is necessitated by various reasons including the changing information needs of stakeholders, the need to improve business reporting, encourage transparent disclosure standard, promotes corporate accountability and promulgation of good corporate governance mechanisms such that users could rely and have confidence on information disclosed for decision making (Eccles, Serafein & Consulting, 2011). Good corporate governance mechanism ensures the survival of an organization. Okoye (2006) observed that the issuance of corporate governance principles and code was a direct response to the increasing corporate failures experienced by businesses in Nigeria. According to Flack and Douglas (2007), the yearly corporate information disclosure explains the annual reporting behaviours of a firm and it can improve the perception of accountability among stakeholders which includes the general public. In addition, non- information disclosure in corporate reports is a strategic tool which can enhance the firm's ability in raising capital at the lowest possible cost (Healy & Palepu, 2001). Non-financial information disclosures provide meaningful, relevant, reliable, accountable and dependable information to investors and other stakeholders about the performance of the business as well as its future prospects to help users in decision-making (Ghasempour & Yusuf, 2014).

However, despite the importance of non financial information disclosure in enhancing the transparency of the entire reporting practices, studies (e.g. Owolabi, Akinwumi, Adetula, and Uwuigbe, (2016) show that the level of non financial information

disclosure in Nigeria, in line with the acceptable regulatory guidelines, is still relatively low even after the implementation of International Financial Reporting Standards (IFRS) which came with the expectation of improving the level of accounting information disclosure among adopting nations. Furthermore, Osisioma (2001) observes that non-disclosure of qualitative information largely contributes to premature development of accounting practice in developing nations like Nigeria.

Oluwagbemiga (2014) also submit that the issue of information disclosure by Nigerian listed companies has been unsatisfactory despite the introduction of several financial reporting standards over the years. He argued that the use of paper-based annual reports as a means of communicating financial information to shareholders limits the content of needed qualitative information disclosed, thus, increasing the risks of companies being undervalued. This brings some concern to the fore that even as inadequate social and environmental laws stare most developing countries in the face, most companies still fall short of the mandatory disclosure requires, let alone the voluntary ones (Amaeshi, Adi, Ogbechie, & Amao, 2016; Owolabi et al, 2016).

Several studies have been conducted, especially in the last two decades, on the extent of disclosure in general and several attempts have been made to explain the different levels of non-financial information disclosure (e.g., environmental, social and governance (ESG) disclosures) based on the different attributes of companies such as size, leverage and industry type (Bose, Saha, Khan, & Islam, 2017; Nassreddine, 2016). Consistent with agency theory, management's incentive to engage in non-financial disclosure has been shown to be influenced by company attributes such as leverage, size of assets (Lan, Wang & Zhang, 2013).

Company attributes, according to Ali and Isa (2018) refer to firm characteristics or specific features that distinguish one company from another. Company attributes are numerous, they are features that distinguishes a company from another. This study

combines both company attributes and corporate governance attributes; board size, Return on assets, industry type, ownership structure, firm size, leverage and gross profit margin of the business, These attributes normally influence company decisions including information disclosure in the financial report. The current study aims to assess the strategic influence the chosen attributes have on non-financial disclosure with the intention of ascertaining whether a combined influence can improve the amount of information that is available to respective stakeholders of both consumer goods and industrial goods companies listed in the Nigerian Stock market.

1.2 Statement of the Problem

Issues of non-financial information disclosure remain a major concern due to the insufficiency of traditional financial information in the corporate report. Prior studies indicated that non-financial information disclosure was accorded a lower priority compared to traditional financial information which involves numerical or quantitative disclosure in the annual reports (Bose et al, 2017). There are empirical evidence from information disclosure authors around the world to show that lack of non-financial information disclosure is linked to low transparency and information asymmetry. Low transparency implies that not enough information is communicated to the investing community and users of the corporate reports which implies that there exists information asymmetry between the parties.

Management may take advantage of the lack of disclosed non financial information in corporate report to undertake activities to enhance their personal interest. Fanke (2018) opined that poor non financial information disclosure exposes outside shareholders

to the risk of losing their investments due to lack of adequate information in the corporate report. With interest in non-financial reporting steadily increasing, public companies are not necessarily responding the way many investors had hoped.

Prior literature emphasized the increasing importance of non-financial information in judging firms' value over time (Rabiu & Mamuda 2017). Although financial information remains important in firm valuation and in the decision-making process by investors and other external stakeholders (Deegan, 2012), financial statements are inadequate in reflecting intangible and other non-financial value drivers, such as corporate governance, risk management, environmental issues and employee experience. These information explain a diminishing (an increasing) part of firms' value, leading to the call from organizational stakeholders for disclosure of non-financial information. The stakes are now too high that consumer and industrial goods companies in Nigeria are required to take a more long term approach and avoid short termism in strategically planning their operations.

The relevance of financial information in firm valuation decreased due to the outdated nature of this information, the discretion employed by managers to estimate financial information and the changing environment in which firms operate. With the latter, consumer and industrial goods organisations in Nigeria, though not financial institutions, are faced with the challenge of globalization, the growing influence of multinationals, the transition to a knowledge economy, the introduction of new technologies, the ongoing world financial crises, the growth in ethical/socially responsible investments and the reality of climate change which may affect production.

The association of the relationship between company attributes Return on Assets (ROA); board size, leverage, industry type, firm size and gross profit margin) and non financial disclosure has been widely documented in literature. Unfortunately, these authors

have not been able to provide proof of any interactions among these variables in influencing non financial disclosures by these companies. Due to the assumed importance of non financial information in influencing investment decisions of stakeholders, this study intends to further provide some explanations for the relative importance of firm attributes to predict the probability of reporting non financial information. The recent interest in sustainability reporting is consistent with the growing sensitivity of our society to understand and be informed of how companies manage these issues in their operations. The glaring inconsistency among different companies in Nigeria in their disclosure requirements is mainly due to lack of an acceptable guideline to promote qualitative disclosures in corporate reports. Previous authors like Okike (2000); Ofoegbu and Okoye (2006); Umoren (2009); and Oluwagbemiga (2014) all observed that the Nigerian corporate reporting practices are weak.

It is worthy of note that all these previous studies either examined one component of voluntary disclosure against corporate firm characteristic variables, or pooled the entire qualitative disclosure dimensions as one variable.

This study attempts to distinguish itself by adopting several company attributes like ownership structure, leverage, size of the firm, industry type and gross profit margin to explain identified non financial information disclosure in corporate reports of consumer and industrial goods companies listed in Nigeria Stock Exchange. There is a possibility that the company-related characteristics may have differing effects on each of the categorised dimensions of qualitative disclosure requirements (Environmental Disclosure, Intellectual Capital (IC) disclosure, Risk Management (RM) disclosure, corporate governance and economic disclosure).

To the best of our knowledge, none of these extant studies from Nigeria attempted to incorporate the above five different components (proxies) of non financial information disclosure variables in a single study. Organizations need to develop cooperation culture with their stakeholders. The attempt by this study to examine the possible effect of disclosure on different stakeholders by examining their various interest (environmental, Social and Governance) is hoped to attend to a broader audience of stakeholders Hence, this study seeks to investigate the effect of company attributes on each of these components of non financial information disclosures of listed consumer and industrial goods companies in Nigeria.

1.3 Objectives of the Study

The broad objective of the study is to determine the effect of Firm Attributes on non information disclosures in Nigeria. Specifically the study is set out to:

i. Examine the joint effect of return of assets, board size, industry type and managerial ownership on non financial information disclosure of listed consumer and industrial goods companies in Nigeria;
ii. Determine the joint effect of gross profit margin, industry type and firms' size on non financial information disclosure of listed consumer and industrial goods companies in Nigeria;
iii. Ascertain the effect of leverage and industry type on non financial information disclosure of listed consumer and industrial goods companies in Nigeria;
iv. Determine how leverage interacts with firm size to influence non financial information disclosure of listed consumer and industrial goods companies in Nigeria; and

v. Examine the prediction of firms' size and return on assets on non financial information disclosure of listed consumer and industrial goods companies in Nigeria.

1.4 Research Questions

Arising from the above, the following research questions were raised which this study addresses.

i. What is the joint prediction of return on asset, board size, industry type and ownership structure on non financial information disclosure of listed consumer and industrial goods companies in Nigeria?

ii. To what extent can gross profit margin, industry type and firm size jointly predict non financial information disclosure of listed consumer and industrial goods companies in Nigeria?

iii. What is the effect of industry type and leverage on non financial information disclosure of listed consumer and industrial goods companies in Nigeria?

iv. What is the effect of leverage and firm size on non financial information disclosure of listed consumer and industrial goods companies in Nigeria?

v. What is the prediction of firm size and Return on assets on non financial information disclosure of listed consumer and industrial goods companies in Nigeria?

1.5 Statement of Hypotheses

The following null hypotheses (**H_0**) were formulated to guide the study:

i. The joint prediction of return on asset, board size, industry type and ownership structure on non-financial information disclosure of listed consumer and industrial goods companies in Nigeria is not significant.

ii. Board size, Gross profit margin, industry type and firms' size do not jointly predict non financial information disclosure of listed consumer and industrial goods companies in Nigeria significantly.

iii. There is no significant influence of industry type and leverage on non-financial information disclosure of listed consumer and industrial goods companies in Nigeria.

iv. There is no significant influence of firm size and leverage on non-financial information disclosure of listed consumer and industrial goods companies in Nigeria is not significant.

v. The prediction of firm size and Return on assets on non-financial information disclosure of listed consumer and industrial goods companies in Nigeria is not significant.

1.6 Significance of the Study

The study will be of importance to the following:

Management: This group of people will find this work very useful. Public companies do not operate in a vacuum. The increase in the awareness of the overall financial system will assist them in their day to day decision making. Equally, a study of this nature will assist them to provide the required information necessary for investors to make decisions on socio environmental operations in consumer and industrial goods sectors in Nigeria.

Government: This study will assist government in regulation and enforcement of rules pertaining to non financial disclosure of companies.

Regulatory Bodies: A study of this study will provide local regulatory authorities the required information necessary in formulation of standards for Nigerian companies.

Accounting standards on non financial disclosure will improve the quality of annual reports of these companies.

Creditors: This study will help creditors in determine the financial ability of the companies. The study will assist in monitoring the overall effect of the business operations on the society.

Academia: This work will be of great contribution to scholars wishing to carry out research work in this area of study.

1.7 Scope of the Study

This study focused on non-financial information disclosures which are not usually expressed in monetary terms. Since the laws have taken care of mandatory disclosures, this study critically looked into the non information disclosures which are largely voluntary in nature in annual corporate reports. The study will cover a time period of six (6) years between 2012 and 2017. The choice of six years (2012-2017), which will form the base and terminal periods of the study, is because the study intends to examine the non financial information disclosures in the post IFRS adoption era in Nigeria (i.e. beginning from 2012). It is expected that the adoption of the new standards would enhance the entire reporting practices in Nigeria.

The study is confined to six years data of consumer and industrial goods (2012-2017), a period considered a post IFRS adoption era.

1.8 Limitations of the Study

Any research must have some limitations. Accordingly, the current research had the following limitations:

Firstly, the research assessed corporate governance disclosure in consumer and industrial goods companies listed in the Nigerian stock exchange.

Secondly, companies' compliance level with countries' local corporate governance codes was beyond the scope of this research.

Thirdly, the current research used annual reports as the most important disclosure medium in Nigeria. However, companies' websites for example might be another important media to be investigated in future research. Based on this limitation, generalisability of the research findings should be limited to the same disclosure medium.

Quantitative analysis used in the cause of this research helps identify possible associations between variables; however, they do not provide much explanation about the unobserved and unmeasured reasons that could affect those relationships.

1.9 Operational Definition of Terms

Financial Data are Information: amounts disclosed by a company as a representation of business events that occurred during a given period of time.

1.10 Acronyms

CBN Central Bank of Nigeria

IASB International accounting Standard Board

IFRS International financial Reporting Standards

NSE Nigeria Stock Exchange

SEC Securities and Exchange Commission

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

2.1.1 Non financial Information Disclosure

Non financial information disclosure describes disclosures, primarily outside the financial statements, that are not explicitly required by generally accepted accounting principles (GAAP). When a firm makes the decision to disclose information voluntarily, it assumes that benefits will outweigh costs. Such benefits may come in the form of the reduced cost of financing investment opportunities (e.g. cost of equity), lower transactions costs for investors by reducing information asymmetry between the contracting parties and more efficient functioning of capital markets (Healy & Palepu, 2001).

Corporate disclosure is seen in different perspectives. Adesina, Ikhu- Omoregbe and Olaleye (2015) note that disclosure represents one of the pillars of corporate governance. Adesina, et.al (2015) further define disclosure as transferring and presenting economic information, whether financial or nonfinancial for the interest of users. According to Taposh (2014), disclosure in financial reporting is referred to as the presentation of information necessary for the optimum operation of an efficient capital market. Disclosure means the dissemination of relevant, material, and understandable information, both financial and non-financial, from the private domain to thse knowledgeable public domain on a consistent basis. It is therefore, the provision of relevant financial information about the economic affairs of a business enterprise to the audience of interest. The Financial

Accounting Standards Board (2000) stated that non financial information disclosure in the corporate annual report reveals information outside of the financial statements that are not explicitly required by accounting rules or standards. But accounting function and financial statements as its products, are service function that operates within a socioeconomic framework, such socioeconomic environment has a strong effect on accounting (Enthoven, 1985). Corporate disclosures can take two forms which include mandatory disclosure or voluntary disclosure (Hassan, Romilly, Giorgioni & Power, 2009; Uyar, 2011). Mandatory information disclosures are reported based on the country's regulatory authorities (such as Security and Exchange Commission, Corporate Affairs Commission). Whereas voluntary information disclosures are based on the discretion of firms which can be financial or non-financial, disclosed over and above the compulsory requirements (Barako, 2007).

There are different users of accounting information. The user groups need accounting information to decide on their respective field of interest. The investor group requires information regarding investment feasibility. The creditors group requires information to form judgment on the credit worthiness of the borrowers. The information needs of the different groups vary. So, a company has to meet the demand of different users which is usually a difficult task due to cost constraints. The Association of Investment Management Research (AIMR, 1992) states that non-financial information disclosure in the corporate report is a good way to communicate with shareholders about company improvement and progress. Institutional investors seek qualitative information about the long-term ability of managers to manage effectively and efficiently. Non-financial information provides evidence of management acumen and operating know-how, and qualitative information usually correlates with quantitative

information (Zarzeski, 1996; Street & Shaughnessey, 1998). Non-financial therefore relates to firm's operating methods (Healy & Palepu, 2001).

The fear of market failures and competitive disadvantage, has made the state or government to use discretion and free will to create laws to make firms disclose certain qualitative information for the interest of stakeholders (Vives, 2007; Bos, Coebergh, & Olden 2008). According to the financial accounting standards board (FASB, 2001) Corporate disclosure falls into two broad categories: mandatory and voluntary. Mandatory disclosure consists of information disclosed in order to comply with the requirements of laws and regulations. On the other hand, voluntary disclosure is any information disclosed in addition to the mandatory disclosure. Voluntary is defined by Meek, Robert & Gary (1995: 555) as "free choices on the part of company managements to provide accounting and other information deemed relevant to the decision needs of users of their annual reports." Moreover, voluntary disclosure may include disclosure "recommended by an authoritative code or body" (Hassan and Marston, 2010: 7) which is the focus of the current research. Voluntary disclosure can be through a variety of means, such as press releases, conference calls, investor and analyst meetings, and field visits with potential and existing institutional investors (Healy and Palepu, 2001; Graham et al., 2005).

However, the annual report has been detected in many studies as a significant source of voluntary information (Gray& Adams 2006). Qu and Leung (2006) argue that the reason beyond depending on the annual reports is that it reflects "a company's overall attitude towards information disclosure to the public." .

2.1.2 Non-Financial Reporting And Sustainability Accounting

Discourses regarding ESG accounting and reporting began as soon as the idea of an extended corporate responsibility was introduced. This coupling is not casual, but refers to the inherent raison d'être of accounting. To perform accounting, it is necessary to create and establish data collection systems, databases, and associated reporting processes. A broadened accountability towards a wider array of stakeholders implies that their claims and interests find representation in such systems. As a consequence, accountability towards stakeholders needs the construction of an adequate accounting and reporting system, incorporating stakeholders' voices in its records, translating them into reliable, systematic, and accountable measurements (Halim, 2013). Specifically, accounting consists of 4 basic processes: counting, recording, summarizing, and reporting. In particular, counting regards identification and measurement of relevant facts or phenomena. Recording refers to the translation of such measurements accordingly to the conventions of accounting principles. The resulting accounting data is then ordered to add meaning to it. For example, the summarizing process distinguishes between current and long-term liabilities and assets and calculates net accounts. The final process of reporting deals with communicating the information to relevant internal and external audiences, allowing the readers to assess, compare, evaluate, and analyze it. As it is evident, reporting is only a limited portion of accounting, which more importantly regards constructing what is known by an organization, as showed by Mitchell, Agle & Wood. (2015). This is precisely what happens when applying the recording conventions prescribed by accounting standards in the recording basic process. In accounting, this step is carried out through the summarizing basic process, which generates the accounts conveying informative value. Finally, the transition from information to knowledge requires the application of

information. The reporting basic process enables application of the accounting information for auditing, analysis, disclosure, and decision-making purposes. In this perspective, accounting serves to create the space of what can be known by the organization, in turn defining what is manageable or not. It is a language familiar to firms, allowing them to "speak" and "listen" to stakeholders (Halim., 2013). In particular, an accounting language affects how managers form their views about what needs to be done, by operationalising ideas and approaches and creating specific visibilities in the information (Christopher, 2010). Conversely, it contributes to constructing stakeholder's image, perception, and judgement concerning the organization.

In other words, the language of non-financial reporting which presents company's ESG performance reflects an extended accountability towards more demanded stakeholders. More precisely, non-financial reporting builds a transformative accounting in opposition to a conservative, business-as-usual one. Stakeholders' representation in accounting has a normative value in the sense that it changes the power relationships between the company and its surrounding environment (Harrison & van der Laan Smith, 2015). The normative foundations of stakeholder accounting rely on a general principle of fairness (Oseni, 2003), according to which accountability towards stakeholders and their right to access created value depends on the extent of their contributions of resources to the firm. In this sense, stakeholders have a tacit contract with the firm, implicitly investing in non-monetary terms and expecting a return on such investment. They introduce a residual claim to the value created thanks to their contribution. Clearly, they bear a form of risk in relation to their investment, from an external reporting perspective. In this perspective, sustainability reporting becomes an institutionalised practice contributing in building the necessary knowledge for

voluntary risk- taking for all the actors involved in the value creation process. Hence, as Mitchell et al. (2015) put it, the problem of stakeholder inclusion/exclusion in accounting is one of knowing versus not knowing.

2.1.3 Voluntary Disclosure Determinants

Factors affecting the provision of, and need for, voluntary disclosure have been assembled by Healy and Palepu (2001) and Graham et al. (2005). According to these authors, factors that affect managers' decisions to voluntarily disclose information can be divided into motivations and constraints. Motivations to voluntary disclosure include capital markets transactions/ information asymmetry, corporate control contest, stock compensation, increased analyst coverage, management talent signalling, and limitations of mandatory disclosure. On the other hand, constraints on voluntary disclosure are disclosure precedent, proprietary costs, agency costs, and political costs. Litigation cost can be viewed as a motive or a constraint as discussed below.

2.1.4 Motivations to voluntary disclosure

It has been argued that managers should voluntarily disclose information that would satisfy the needs of various stakeholders (Meek et al., 1995). Voluntary disclosure is aimed at providing a clear view to stakeholders about the business's long-term sustainability, it greatly reduces information asymmetry and agency conflicts between management.

The motivations to voluntary disclosure are as follows:

1. **Capital markets transactions/ information asymmetry:** when a company's managers want to issue new capital through equity or debt, the perception of investors towards information asymmetry between managers and that of outside investors needs to be reduced. As a consequence, the cost of external financing and capital should be decreased. Voluntary

information disclosure can help achieve this objective, where a reduction in information asymmetry may occur when voluntary disclosure is increased to outside investors (Healy and Palepu, 2001).

2. **Corporate control contest:** The possibility of a firm's undervaluation is another motive for managers to increase voluntary disclosure in order to reduce such a possibility, especially when poor earnings and stock performance might lead to the risk of job loss (Healy and Palepu, 2001; Graham, Harvey & Michaely, 2005), for example, the case of poor stock performance associated with chief executive officers turnovers (Warner et al., 1988; Weisbach, 1988). As a result, managers increase information disclosure in order to retain corporate control, to explain the reasons for poor performance and reduce the possibility of undervaluing the company's stocks (Healy and Palepu, 2001).
3. **Stock compensation:** rewarding managers with stock-based compensation plans, such as stock appreciation rights and stock option grants, is another motive for increased voluntary information disclosure (Healy and Palepu, 2001; Graham et al., 2005). Two reasons justify this motivation: first, managers will have incentives to reduce contracting costs associated with stock compensation for new employees when they act in the interest of existing shareholders. Second, when managers are interested in trading their shares, they will be motivated to disclose private information to meet the insider trading rules' restrictions and to correct any undervaluation perceptions before the stock option awards expire (Healy and Palepu, 2001; Graham et al., 2005).
4. **Increased analyst coverage:** increased voluntary disclosure of information decreases the cost of information acquisition by analysts; since management's private information is not totally required by mandatory disclosure. The number of

analysts following the company would increase as a result of increasing the amount of information available to them (Lan & Zhang 2013).

5. **Management talent signalling:** investors' perception of managers' ability to predict future changes in the company's economic environment and respond to them is one of the determinants of a company's market value. Accordingly, talented managers voluntarily disclose information about earnings forecasts to reveal their talent (Healy and Palepu, 2001). He argues that managers limit information disclosures that may be used against them by regulators. s
6. **Limitations of mandatory disclosure:** since regulations and laws do not usually meet the information needs of investors through mandatory disclosure (Graham et al., 2005), because in most cases laws and regulations provide investors with the minimum quantity of information that helps in the decision making process (Al-hamadeen & Suwaida, 2014), the need for voluntary information disclosure arises. Accordingly, voluntary disclosure is perceived as filling the gaps created by mandatory disclosure (Graham et al., 2005).

2.1.5 Constraints on voluntary disclosure

Factors that limit and/or prevent managers from voluntarily disclosing corporate information are identified by Graham et al. (2005):

1. **Disclosure precedent:** setting a disclosure precedent is one of the factors that reduce voluntary information disclosure, as it means that managers have to maintain the same pattern in the future, although this may be difficult to preserve (Graham et al., 2005). Moreover, the market would expect the company to be committed to the new disclosures and maintain them

even if the news is good or bad. This provides an incentive for managers to reduce voluntary disclosures (Graham et al., 2005).

2. **Proprietary costs:** proprietary information has been defined by Deys (2008) as "any information whose disclosure potentially alters a firm's future earnings gross of senior management's compensation" including information that may decrease customer's demand for a company's products. Accordingly, managers favour not to disclose information that may affect the competitive position of their company in a market, even if this would increase the associated cost of capital. It can be said that proprietary costs represent the competitive disadvantage (Chaney, Davids & David, 2012). Managers can be expected to disclose aggregate performance information when their company has different performance across its segments (Hieu &Lan,2015).On the other hand, firms with similar declining profitability across its segments will disclose more segment information (Ping,2012).
3. **Agency costs: A**gency issues are one of the reasons beyond reduced voluntary disclosure. Managers' desire to keep away from potential attention and follow up from stockholders and bondholders about unimportant items, such as career concerns and external reputation, is one of the factors that limit voluntary disclosure.
4. **Political costs:** generally speaking, managers prefer not to disclose voluntary information that regulators might use against them. According to Watts and Zimmerman (1978), political costs depend on the firm's size. Large companies with high profits are more likely to decrease voluntary information disclosure level, to avoid being subjected to any political attacks such as the threat of nationalisation and to reduce the expected attention that would be drawn based on high

reported profits (Wallace et al., 1994; Camfferman and Cooke, 2002; Alsaeed, 2006). Income taxes are also among the political costs incurred, which depend heavily on the reported profits; the higher the reported profits, the more taxes on business profits (political costs) being paid by a firm.

2.1.6 Litigation costs

Litigation can be considered as a motivation to increase disclosure or a constraint against disclosure. On one hand, managers are encouraged to increase voluntary disclosure not to be subjected to legal actions against them resulting from untimely or inadequate disclosures. In addition, managers will give due care to disclosing more information, especially bad news to limit the threat of litigation (Francis, Lafond, Olsson & Schipper, 2004). On the other hand, managers may reduce voluntary disclosures of forward looking information as a result of litigation, especially if managers face the risk of being penalised against their forecasts (Healy and Palepu, 2001; Graham et al., 2005).

2.2 Qualitative Information Disclosure Characteristics of Corporate Reporting

The issue of non-financial corporate reporting is a major concern to all classes of users of financial statement as it affects economic decisions of stakeholders. Different accounting professional bodies around the world have made several efforts to define the objectives of voluntary information in the corporate reporting for the benefits and development of financial accounting theory and practice (FASB 1978). Soltani (2007) states that the basic objectives of voluntary information disclosure is that it provide information for the users to make business and economic decisions; help investors predict future cash flows; and, provide information concerning the company's economic resources.

The International Accounting Standard Board (IASB, 2006, 2008), asserts that the main reason behind corporate reporting is to present useful financial and nonfinancial information about the reporting organisation to potential stakeholders like equity investors, lenders and other creditors for meaningful decision making within their capability as capital providers. The basic objective of corporate reporting is to present qualitative and quantitative information which can be of great benefits to stakeholders like investors, creditors and other users to make crucial investment decisions. The True blood Committee of USA and Corporate Report of UK noted that the main objective of financial statements is to provide meaningful information useful to make reasonable economic decisions. The FASB (USA) in its Concept No. 1 also summarised that financial reporting provides information that are of great benefit to potential investors, creditors and other users in making rational investment, credit and other related decisions.

The essence of voluntary information disclosure is to provide external users useful information about the firm. As more non-financial information is disclosed, it paves way for data to be analysed in relation to the enterprise environment to project their future earnings power. Corporate report is expected to meet certain qualitative informative disclosure according to IASB (2008) framework, the main requirement for the attainment of quality financial reporting is as a result of strict compliance to the objective and the qualitative characteristics of corporate reporting information. Chaney, David, and David (2012) posit that qualitative characteristics guide the selection of preferred accounting methods and policies from among available alternatives so as to make corporate reporting a desirable commodity. Choi and Pae (2011) state that non-financial information disclosure varies

a lot even if the companies follow same accounting standards and even if they operate under same financial reporting rules (GAAP) or principles (IFRS).

Non-financial information disclosures make the corporate report useful and distinguished (IASB 2008). It is those qualities that distinguish more useful accounting information from less useful information. The qualitative characteristics that command wider acceptance and recognition for making information useful in corporate reporting and facilitating earnings quality have been examined (Francis et al., 2004; Bushman & Piotroski, 2006; Holthausen, 2009). Vital qualitative characteristics consist of relevant and faithful representation (IASB, 2008): IASB (2008) defines relevance as the capability of making a difference in the decisions made by the users in their capacity as capital providers. Information that is given greater weight in decision-making is more relevant. Menon and Williams (2010) argue that it is not easy to prepare a general purpose report which could provide optimal information for all possible users, and which could as well as command universal relevance.

Faithful representation is attained when "the depiction of the economic phenomenon is complete, neutral and free from material error" (IASB 2008:13). According to Ball (2006), the reliability of any useful measure or accounting description centres on the truthfulness with which it purports to represent and affirmation to users that it has faithful representational feature. A number of information provided in corporate report tends to be more reliable than others because of the phenomena it presented especially as economic resources, obligations, the transactions factor and events that occurred within (FASB 1980). IASB (2008) and Ilaboya

(2008) suggest that enhancing qualitative characteristics of corporate reporting include comparability, verifiability, timeliness and understandability according to IASB's conceptual framework.

Comparability is the quality of information that enables users to identify similarities and differences between two sets of economic phenomena (IASB, 2008). FASB (USA) Concept No. 2 (1980) defines comparability as .the quality or state of having certain characteristics in common, and comparison is normally a quantitative assessment of the common characteristics. Comparable purposes enable decision-makers to determine relative financial strengths and weaknesses and future prospects between two or more corporate organizations or between periods in a single firm. Pandey (2005) states majorly that comparability is needed to enhance decision makers like creditors, investors and other users of corporate reports to make predictions about financial positions from one accounting year to another and differences caused in income as result of disparity in practices. Bushman and Smith (2004) assert that verification implies and enhances consensus about measurements of some particular phenomenon. According to FASB (1978), verifiability rightly portrays that no more than the numerous approaches are likely to obtain the same measure in the corporate report. This suggests that verification of disclosed accounting information does not give assurance that the information provided in that corporate report has esteem of representational faithfulness and also a measure with a high degree of verifiability is not necessarily relevant to the decision for which it purported to represent to the users.

Timeliness refers to having information available to decision makers before it loses its capacity to influence decisions. Timeliness alone, cannot make disclosed information relevant, but a lack of timeliness, can rob disclosed information of relevance it might

otherwise have had (Watts, 2003).It therefore means that it is vital occasionally to sacrifice exactness for timeliness in release of corporate reports, because early released annual report is often more useful compared to precise information which is delayed more than necessary before being reported to users.

Understandability as an attribute, permits users of released corporate report to comprehend its meaning deeply before decision making. Disclosed information in corporate report that users find difficult to comprehend is no longer useful despite its relevance. According to Watts (2003), understandability suggests that disclosed information in corporate report must be presented in simple, suitable, clear form and consistent with the proper description of economic activities of the firm. This implies that judgment needs to be applied in holding the balance between the need to ensure that all material matters are disclosed in corporate report and the need to avoid confusing users by overloading reports with information. Moerman (2006) claims that understandability calls for the provision in the clearest form of all the information in the corporate report which realistically educate users for meaningful decision and the corresponding presentation of the key attributes for the use of the less complicated. Understandability of financial information is governed by a combination of user characteristics, and characteristics inherent in the information.

Consistency is the use of accounting principles from one accounting period to another is a desirable quality, but if pushed too far, it will prove a bottleneck for bringing about improvements in accounting policies, practices, and procedures (Ilaboya, 2008). Furthermore, the change to a preferred accounting method cannot be made without sacrificing consistency to required change from time to time in accounting principles, standards and guidelines. The materiality concept implies that, not all financial

information needs to be or should be communicated in accounting reports only material information should be reported (Barth & Schipper, 2008). Therefore, materiality of an item depends not only upon its relative size, but also upon its nature or combination of both quantitative and qualitative characteristics. In effect, accounting information must exhibit certain qualitative attributes for it to be incorporated into the report.

2.3 Accounting Standards for Corporate Reporting

FASB (2000) explained that qualitative and quantitative information disclosure can be voluntary or mandatory disclosure in the corporate report suggesting that information primarily outside of the financial statements that are not explicitly required or those required by accounting rules or standards. Accounting Standards are the authoritative statements of best accounting practices issued by recognized expert accountancy bodies relating to various aspects of measurements, treatments and disclosures of accounting transactions and events, as related to the codification of Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS). The standards are given as norms of accounting policies and practices by way of codes or guidelines on how the items which form part of financial statements in the corporate report should be dealt with in and presented in firm's yearly report.

Before adoption of IFRS in Nigeria, financial reporting and preparation of financial statements were basically on the Generally Accepted Accounting Principles, (GAAPs). Auditors decision to accept or reject an engagement was on the GAAP approach before adoption of IFRS as basis for financial reporting with effect from 2012.Generally Accepted Accounting Principles,

(GAAPs) vary from one country to another. There is a US GAAP, a UK GAAP and Nigeria GAAP. The GAAP in Nigeria refers to:

Local company law such as Company and Allied Matters Act, (CAMA), 2004.

The accounting standards that are applied. In Nigeria this would be the Nigeria Accounting Standards Board (NASB) now Financial Reporting Council of Nigeria (FRCN) Statement of Accounting Standards (SAS).

Conceptual statements issued by the body that issue accounting standards.

Other local rules such as listing rules for financial reporting, for companies whose shares are listed and traded on a major national stock exchange.

The various rules guide disclosure of qualitative information in corporate reports. Therefore these accounting principles can also be described as concepts; conventions; postulates; standards; doctrine; tenets; assumptions; rules and regulations governing the preparation and presentation of financial statements in different countries of the world.

The increasing rate of recognition of International Financial Reporting Standards as a foundation for financial reporting perhaps represents a fundamental issue in the accountancy profession in Nigeria. The adoption of IFRS is aimed at promoting transparency, increasing financial reporting integrity and accountability and presenting financial statements that will increase investors' confidence and promoting cross-border Stock Exchange listing (Oseni, 2013). Ball (2001) argues that the purpose of financial reporting is essentially to reduce information asymmetry between corporate managers and parties contracting with the firm. This is achieved by disclosing relevant and timely information. The improvement of accounting quality brings positive

desirable consequences (Soderstrom & Sun 2007) such as the lowering of the cost of capital (Leuz & Verrecchia 2000) and the improvement of the international capital mobility (Young & Guenther 2002).

The need for adoption of accounting standards which encourages uniformity in various countries corporate financial reports resulted to the issuance of International Financial Reporting Standards (IFRS) (Fowokan, 2011). Harmonization of accounting standards is necessary for globalization such that allows investors to access securities and exchange commission of other countries all over the world. The process of harmonization gives the global community a single entity. With harmonization, the diversity of stockholding does not matter today if the accounting system can generate general purpose financial statements in real sense.

This topic cannot be discussed without referring to the statement of Harvey Pitt, US SEC Chairman at SEC Conference (2002) who stated that, high quality global accounting standards has become necessary to increase confidence of potential investors to make informed financial judgement and as such corporate organizations must keep track with progress and adopt in order to promote and protect their business credibility in the international market scene. Ezeani and Oladele (2012) address all these concerns by taking into account the fact that application of IFRS reflects the combined effects of the features of financial reporting systems, the interpretation and enforcement of accounting standards and other environmental factors affecting managerial incentives. According to Okpala (2012), the move to International Financial Reporting Standards (IFRS) is one of most important initiations in the corporate financial reporting world and its effect go far beyond accounting in terms of decision

usefulness. Various countries of the world have respective approaches to introduce IFRS which is based on need and ability to adopt (Azobi 2010).

International Financial Reporting Standard is issued by the International Accounting Standards Board (IASB), an independent organisation registered in the United States of America (USA) but with headquarters in London, United Kingdom. International Accounting Standards Board (IASB) pronouncements on financial reporting standards are equally respected by corporate financial reporting interest all over the world (Uwadiae, 2012). The financial reporting standards was initiated in 1973 when the International Accounting Standard Committee (IASC) was introduced in attendance by 16 professional bodies from many countries of the world(like United States of America, United Kingdom, France, Canada, Germany, Australia, Japan, Netherlands and Mexico) all over the world (Garuba & Donwa, 2011). IASC metamorphosed into the International Accounting Standards Board (IASB) in 2001. The proposal standard was approved by December 1999 by the IASC board and IASC members did the same in May 2000. The new standards setting body was named as International Accounting Standards Board (IASB) and since April 2001, it has been performing the rule making function. The IASB describes it rules under the new label international Financial Reporting Standards (IFRS), though it continues to accept as legitimate the prior rules (IAS) issued by the old standard setters (IASC).

In May 2007, a committee with the objective of complementing the efforts of other stakeholders towards the adoption of IFRS by quoting companies was established. Nigerian listed entities were required to prepare their closing balances as at December 31,

2010 according to IFRS. The closing figures of December 31, 2010 will become the opening balances as at January 1, 2011 for IFRS based financial statements as at December 31, 2011. Public Listed Entities and Significant Public Interest Entities are expected to adopt the IFRS by January 2012. All Other Public Interest Entities are expected to mandatorily adopt the IFRS for statutory purposes by January 2013, and Small and Medium-sized Entities (SMEs) shall mandatorily adopt IFRS by January 2014. The opening balances for January 1, 2012 will be the first IFRS full financial statements prepared in accordance with the provision of IFRS as at December 31, 2012.

2.3.1 Recommended Frameworks For Non-Financial Reporting

There is a wide range of recommended frameworks from which companies can choose a tool for non-financial report that are not legally binding, but provide necessary and helpful guidance while drafting a report. The non- financial reporting frameworks are initiatives which are jointly seeking to help the organization in non-financial reporting by ensuring legitimacy, clarity of standards, functionality, learning and engagement, clear communication and significance. According to the Non-financial reporting Directive, in providing the non-financial information companies may rely on national frameworks, Union-based frameworks such as the Eco-Management and Audit Scheme (EMAS), or international frameworks. International frameworks for non-financial reporting are: the United Nations (UN) Global Compact, the Guiding Principles on Business and Human Rights implementing the UN "Protect, Respect and Remedy" Framework, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the International Organisation for Standardisation's ISO 26000, the International Labour Organisation's Tripartite Declaration of principles concerning multinational enterprises and social policy, the

Global Reporting Initiative. If a reporting company relies on a specific framework (national, European or international), it must state it in its report. Below is a brief summary of the most common non-financial reporting initiatives, frameworks and systems for corporate social responsibility management.

United Nations Global Compact (UNGC)

The United Nations Global Compact is a voluntary and strategic initiative to encourage companies to align their business strategy with ten principles in the area of human rights, working conditions, ecology and anti-corruption based on the United Nations Declaration and Convention, including the Millennium Development Goals. The signatories of the UNGC are obliged to issue a progress report, and to the stakeholder's public announcement on progress in the implementation of ten principles. Violation or omission of promotion may result in company categorization in the one who does not communicate and eventually may lead to ejection (Markota Vukić, 2013). UNGC has a goal of helping companies around the world to build a social and environmental frame- work that will support and secure the survival of open and free markets, while allowing all people to have Benefits from the new global economy.

The Organisation for Economic Co-operation and Development (OECD)

Guidelines for Multinational Enterprises OECD Guidelines are recommendations from governments of member states and organizations and affiliated members of multinational corporations on responsible business conduct abroad and include business issues from ten areas. Guidelines propose socially responsible activities to multinational companies to improve the lives of each

individual by addressing issues of employment, human rights, ecology, corruption, market competition, the publicity of data, technology and tax policy. OECD member governments and non-OECD member countries from all over the world encourage companies to respect these guidelines. The OECD Guidelines are not binding, but multinational corporations are expected to adhere them.

ISO 26000 ISO 26

Is a voluntary standard (guidelines) developed by the International Organization for Standardization (ISO) in order to provide a standard for socially responsible business. Companies are given definitions and guidelines which can be easily and effectively implemented in their business. This standard was created as a result of international co-operation between government representatives, non-governmental organizations, various industries, consumer groups and trade unions from all over the world. ISO 26000 standardizes 7 core areas: (1) Organizational Management, (2) Human Rights, (3) Working Conditions, (4) Ecology, (5) Fair Business Practice, (6) Consumer Issues, and (7) Participation and Development community. It applies not only to trading companies, but to all types of organizations, regardless of their activity, size and location, as well as governments, regardless of the degree of development of their country. This standard is often referred to in the Tripartite Declaration of the International Labour Organization, the OECD Guidelines for Multinational Enterprises and UN's Leading Principles on Entrepreneurship and Human Rights and its Global Compact Initiative.

Global Reporting Initiative (GRI)

GRI is an independent international organization launched in 1997 by the Environmentally Responsible Coalition (CERES) and the UN Environmental Pro- gram (UNEP) with the mission to support companies to make decisions about the sustainable development of their business. Current GRI Standards are the latest version of reporting framework published in October 2016 which is a result of comprehensive dialogue and collaboration with multiple stakeholders. GRI Standards are interconnected set of modules which organizations can apply for reporting on its material social, environmental and economic impacts. GRI frameworks give the highest importance to the identification and reporting of only material aspects of business operations which is identified through dialogue with key stakeholders. GRI Guidelines are currently the most comprehensive and influential framework of non-financial reporting.

International Integrated Reporting Council (IIRC)

Integrated reporting is a concept of creating an articulated and broader range of measures that contribute to long-term value and the role organizations play in society. Integrated reporting helps businesses to integrate financial and non-financial business information in order to promote communication about value creation and its business model.

This framework enables businesses worldwide to simplify communication with external stakeholders. Integrated reporting is still in development, but has received a wide acceptability by most organizations.

The Sustainability Accounting Standards Board (SASB) The SASB Foundation is an U.S. based organization with the purpose of establishing industry-based sustainability accounting standards for the recognition, disclosure and benchmark of material environmental, social and governance impacts by companies traded on U.S. exchanges. Its sustainability accounting standards

enable comparison of peer performance and within an industry, SASB is developing industry-specific sustainability standards that enable a company to characterize their performance with respect to the issue.

2.3.2 Firm Attributes

i. Firm size

Firm size is one of the most influential characteristics in organizational studies. Akbas(2014) and Nyahas, Ntayi, Kamukama & Munene (2018) provide a summary and overview of the importance of firm size. Firm size has also been shown to be related to industry- sunk costs, concentration, vertical integration and overall non financial disclosure (Dean et al., 1998). Firm size is one of the most acknowledged determinants of a non financial disclosure performance. It is commonly measured by either natural logarithm of assets, or sales or employees. Larger firms are associated with having more diversification capabilities, ability to exploit economies of scale and scope and also being highly formalized in terms of procedures. Onoja and Agada (2015) describe firm size as the quantity and array of production capability and potential a firm possesses or the quantity and diversity of services a firm can concurrently make available to its clients. Firm size plays a significant and crucial role in explaining the kind of relationships the firm has within and outside its operating environment. Omoye (2013) argues that the larger a firm is, the more the influence it has on its stakeholders, and so large firms tend to outperform small firms.

Several studies suggest that a positive relationship exists between company size and non financial information disclosure. Bigger firms are presumed to be more efficient than smaller ones. The market power and access to capital markets of large firms may give them access to investment opportunities that are not available to smaller ones (Ali & Isa, 2018). Firm size helps in achieving economies of scale which in the long run can lead to improved voluntary disclosure. However others like, Afolabi (2013) argues that firm size can lead to inferior disclosure due to informalized procedures and market inefficiencies. Modugu & Eboigbe (2017) found that enterprise size significantly linked to better business performance. Larger enterprises were found to have higher level of success. Similarly, Owusu-ansah (2013) found that larger firms have higher ROA, ROE and operational self-sufficiency. Small firms not only find it difficult to compete with larger firms in the market but they also face problems in obtaining finance, thereby hampering their ability to grow. For example, Oyeorgba (2014) examined the relationship between size and voluntary disclosure of small firms in Sweden and found that voluntary disclosure was higher in larger firms compared to the smaller ones.

ii. Leverage

Leverage is concerned with the use of various financial instruments or borrowed capital to increase the potential return of an investment. The Securities and Exchange Commission (SEC) requires firms to disclose and discuss trends concerning their liquidity, capital resources, and operations. However, there is an ongoing debate on the value of these textual narratives.

Leverage plays an important role in these discussions. The existing literature on the effect of leverage on voluntary disclosure has come to mixed results and conclusions. Firm leverage is the degree to which a company uses fixed-income securities, such as debt

and preferred equity. Leverage is simply the ratio between total debt and total assets of the company that shows the extent to which the totals assets are financed by loans. Leverage can also be measured as the book value of debt divided by the value of assets. An increase in this ratio shows the dependence of the company on external debt financing and greater score being given to the firm by debt providers. This however, may curtail firms autonomy because of the restrictive covenants imposed by debt providers and may in the worst case scenario lead to financial solvency. This is because with a high degree of financial leverage comes high interest payments. The trade-off between agency costs of debt and equity (Jensen and Meckling, 1976); the limited liability effect of debt (Brander and Lewis, 1986); and the disciplining effect of debt (Grossman and Hart, 1983; Jensen, 1986) all suggest a positive effect of leverage on non financial disclosure. In a study about the relationship between capital, structure, equity ownership and voluntary disclosure, Rouf (2011) find that leverage is positively related to non financial information disclosure. Uyar (2011) research leads to the conclusion that leverage has a negative relationship with voluntary disclosure, but they also found moderating effects on their result.

iii. Gross Profit Margin

Gross profit margin is the percentage of revenue you retain after accounting for costs of goods sold. In the big picture view, gross profit simply shows how much money you make against the cost of the product so you can project and interpret profit potential. Gross profit margin is the percentage of revenue you retain after accounting for costs of goods sold. The figure is common and much needed as a basic means of measuring your business profit. The ways you can analyze and use the gross profit figures are

endless. In the big picture view, gross profit simply shows how much money you make against the cost of the product so you can project and interpret profit potential.

Gross profit margin is generally important because it is the starting point toward achieving a healthy net profit. When you have a high gross profit margin, you are in better position to have a strong operating profit margin and strong net income. For a newer business, the higher your gross profit margin, the faster you reach the break-even point and begin earning profits from basic business activities.

This does not always mean a high margin is possible however. The pricing strategy and competition will ultimately drive how the margin reacts to the consumer buying habits. You do want to capture the highest possible margin without sacrificing sales to maximize revenue.

Margins and Cash Flow

Your gross profit margin also impacts your cash flow. Companies typically expend significantly on inventory costs to make or acquire products. When you sell inventory for a significant markup percentage or profit, you convert each unit into much greater cash than what you invested.

It is also easier to invest extra cash in business expansion when you have confidence in your ability to convert inventory and sales into profit. Knowing your gross margins and sales trends helps drive the company cash flow and reinvestment strategy.

Margin-Based Pricing Strategies

The gross margins are often determined by pricing strategies. Typically, the way a product is priced is based on competitive market pricing. In other words, you will price similar to the competition and you'll accept the standard margins while also attempting to market your product so that you drive sales.

In some instances, it pays to price lower than the market, while also accepting a lower gross margin. The decreased margin can lead to increased sales, as you offer the best price point. It can also backfire as competitors reduce prices, and everyone experiences a lower margin against similar sales trends.

One other strategy is that of pricing higher than the market to maximize the margins. A high pricing strategy is often accompanied by a major branding campaign. In this case, the company is really selling the brand as much as the product so that it can achieve sales at the higher pricing. This strategy can work in some markets, but it does come with the initial risk of selling to a market that's comfortable buying at a lower price.

For Consumer and industrial goods companies, product cost are attributed to cost of sales. These include the raw materials, the shipping cost e.t.c. All costs that are attributable to getting the product in, buying it, and shipping it out should be allocated to cost of sales.

Generally, the higher the gross profit margin the better. A high gross profit margin means that the company did well in managing its cost of sales. It also shows that the company has more to cover for operating, financing, and other costs.

2.3.3. Corporate Governance Variables

i. Board Size

Literature on board size is of diversant views and results. Some studies results revealed that large board size is an indication of better and viable governance, whereas, some other studies results proved such as wrong and posited that smaller board size enveloped the elements of better governance with outputs of reliable and quality financial reporting. Board size is often used by some scholars to measure the quality of corporate governance and financial reporting. The board of a firm is responsible in ensuring and monitoring the quality of information in financial reports. Results of several studies have revealed that the twins of sound governance and board composition reduces the adverse effects of earnings management as well as the likelihood of creative financial reporting.

Board size is the number of directors, both the executive and non-executive members duly elected and appointed to govern the affairs of the company independently and responsible in putting the necessary checks and balances. However, there is no one optimal size for a board. Number of board members considered to play a critical role that directly and indirectly affect firm performance (Hieu & Lan, 2015). Accordingly, board size is influenced by company's strategic vision bordering elements in firm size, ownership structure, market characteristic, board demographics, board structure, board recruitment, board member motivation and criteria, board education and evaluation, and board leadership, etc.

According to Jensen and Meckling (1976) a board membership should not exceed seven or eight number in order to function effectively. He further averred that smaller boards enhance communication, increase cohesiveness and bring about proper and adequate co-ordination, which resultantly make monitoring more effective. If Boards are properly coordinated and do their woks independently, the criticism in them failing to meet their governance responsibilities will reduce. The expected responsibilities of the board been emphasized are on board independence,

board leadership structure, board size and committees. Kiel & Nicholson (2003) view the board as the firm's highest-level control mechanism, with ultimate responsibility of overseeing the activities of the firm. The larger the board the more complex it will be as regard decision making. Many scholars argued that the assertion that larger board size connotes viable governance is a misconception. On the contrary other scholars debunked the assertion that larger size boards are better off.

Results of empirical study undertaken by Khales, Khilif & Hussainey (2015), showed that smaller board size is associated with higher firm value. According to (Nyahas, Ntayi, Kamukama, & Muenen, 2018) a large board is associated with a non financial disclosure.

Prior literature shows that board size plays a significant role in directors' viability to check on managers. Padilla (2002) finds that categorization of board members into different committees largely depends on the size of the board. Serrasqueiro & Mineiro (2018) and Uwadiah (2012) further suggest that larger boards are able to commit more time and effort to monitor management. The functional effectiveness and efficiency of board size hinges largely on the connectivity to the inner workings of the board by various standing board committees which significantly play various supportive roles to complement boards' decision-making and supervisory functions. Such divisionalization of functions based on specialized standing committees help shortened board decision making process (Taposh, 2014; Soltani (2007) opines that board effectiveness is thus enhanced through the type and composition of board committees. This is because most of the strategic decision are undertaken at the committee level. In some countries, board membership is structured to embody standing committees of audit, remuneration, and nomination to assist the boards with the multiple functional responsibilities.

ii. Ownership Structure

Prior literatures have concluded that ownership structure of firms have impact or correlation on firms' financial reporting quality and performance. Owing to this, some firms consciously build its ownership structure to attain such desired objective. Institutional investors are viewed dually as "asset managers" and "asset owners". Asset management enhance the corporate value of companies through day-to-day constructive dialogue. Whereas asset owners are obligatory to fully disclose their stewardship responsibility policies. Institutional investors have the chance, know-how, skills and resources to influence the performance of the companies and have contributed to dynamic, increased competition professionalism(Shiri, Sahel & Radbon 2016). According to Umoren (2009) irrespective of the influence of institutional owner's strategic decisions or not is relatively a function of their stake or ownership in the company. Institutions with a high stake in the company have less marketable number of shares and likely will hold them for longer, which exposes institutions to the performance of the company and will give them incentives to actively monitor and try to influence strategic decisions.

Furthermore, Gillan and Starks (2000) assert that institutional proposals are of the high view to receive votes to support the decision of that of individual proposals. Institutional owners are investment vehicle driven by specialized and experienced corporate bodies that are knowledgeable in key financial and investment issues and pooled vast sums of their financial resources and invest such monies in securities, real property and other investment assets. They hold the stock of related and unrelated companies. These companies are monitored by their investors in the context of mutual stock ownership within the cross-shareholding system. They are corporate organizations within the scope of banks, insurance companies, retirement or pension funds, hedges funds, investment advisors and mutual funds as well as operating companies that decides to invest their profits. The funds are used to buy shares in a company, or some other financial product. By virtue of their shareholdings they have the capability of exercising influence in the management of corporations, hence brings about active corporate

governance practices. Some of institutional investors act as intermediaries between lenders and borrowers and play critical role in functioning of the financial markets.

Owing to the specialized knowledge they have, they can gather and interpret financial reports and as well be able to detect managerial opportunism over earnings figures (Velury& Jenkins, 2006). Moreso, as a result of their degree of investment, they also demonstrated high degree of interest in monitoring a firm's non financial information disclosure. The significant increase in the institutional investors" shareholdings has led to the formation of a large and powerful constituency to play a significant role incorporate governance. Institutional investors are long-term investors. They have the genuine interest and unfailing incentives and motivations to closely monitor management action (Robert, Mcnulty & Stiles, 2005). Studies have further revealed that large institutional investors have the opportunity, resources, and ability to monitor, discipline, and influence managers and the corporate monitoring by institutional investors can force managers to focus more on corporate performance and less on opportunistic or self-serving behaviour (Rahim, Atan & Amrizah, 2011). According to Bushee (2001) whenever the decision to examine the relationship of institutional investors and voluntary disclosure is considered, the characteristics of institutional investors should also be considered alongside. The composition of investors in the capital structure of firms have the capability of affecting earnings management and will inevitably affect the quality of released accounting information (Chi, Liu, & Wang, 2009). Also, previous studies have indicated that high stake institutional shareholding plays significant role in monitoring and mitigating management opportunistic behaviour, especially on the area of earnings management. However, this result does not vary in low institutional ownership stake, (Roos, 2006). Frankfurter and Wood (1994) averred that Institutional ownership in the company can also affect managers. Accordingly, they stated that large shareholders, usually consisting of institutional shareholders, have a high ability to control managers. The rationale is that greater percentage of shares owned by the institutions will lead to a more effective control by shareholders..

2.4 Voluntary Information Disclosure Variables

Corporate information disclosures take the form of mandatory or voluntary (Hassan & Marston, 2010; Uyar, 2011). Mandatory disclosures suggest information are disclosed based on regulatory authority directives (such as Security and Exchange Commission, Companies and Allied Matters Act), while voluntary information disclosures are based on discretion of firms (Barako, Hancock & Izan 2006).

In this study however, we focus on each of these disclosures (social and environmental disclosure, corporate risk disclosure, intellectual capital disclosure) to give us the totality of qualitative or voluntary information disclosure. These are discussed as follows:

2.4.1 Corporate Environmental Disclosure

Association of chartered certified Accountants (ACCA) defined environmental disclosure as the combination of narrative including objectives, explanations and numerical information such as emission amount, resources consumed on a corporations' environmental impact for the particular accounting period. It is defined as a systematic statement that describes the burden and environmental efforts including company's' objective, environmental policies, environmental activities and impacts, reported and published periodically to the public.

Environmental disclosure is not mandatory in Nigeria. Voluntary Disclosure is whereby Companies disclose environmental information on voluntary terms. They are not obligated by law to disclose as is a practice in Nigeria. They do this from pressures

from financial institutions, investors, and the community at large. Culture of the organization may also influence such disclosures as may be the preference of dominant management and CEOs. Organizations do this as a way of remaining legitimate in the eyes of the society as there may be benefits to be reaped . Many companies in Nigeria attempt to disclose the measures they take in environmental protection for instance, Air emission information. Water discharge information, Solid waste disposal information. Environmental policies; Conservation of natural resources, Recycling plant of waste products, Installation of effluent treatment plant, Anti-litter and conservation campaign;

The disclosure of Environmental Information is based on the document analysis as it is been ' promoted by Bowen (2009). Several studies show concerns about environmental accounting reporting, such as: Gray (2002, 2006), Gray & Collison (2002), Sahay (2004), Byrch (2007).

Although, Environmental Disclosure is already a widespread tendency in large and small and | medium firms, it does not address these issues on their Annual Report (Sahay, 2004; Chan & 1 Welford, 2005). Indeed, it constitutes a change to firms whose current environmental focus is presented on monetary terms (Lamberton, 2005; Cho & Patten, 2007). Another example are the corporate AR that, usually, disclose their "good" business practices that ensure the sustainability of the business in order to contribute to the maximization of shareholder value, but nothing related to the "bad" business practices of the environment (Chan & Welford,| 2005). But, there is a danger of transmitting a false image of firms' reports, emphasizing those that are managed positively (Lamberton, 2005; DeVilliers & van Staden, 2006). Cho and Patten, (2007) say that there are evidence about

environmental reporting (ER) to be subjective, because the Environmental Disclosure can change due to the voluntary basis. Lamberton, (2005). argues that these information's give more transparency to Annual Report. Other example of disclosure could be the publication of standards by National Entities or Standard Setting Bodies in different countries about environmental responsibility. In Portugal there is an Accounting and Financial Reporting Standards 26 - Environmental Issues (CNC, 2009), that prescribes the accounting treatment for Environmental Information in terms of recognition, measurement and disclosure. However, entities with securities listed on regulated markets of the member States of the European Union (EU) and with consolidated accounts, do not apply this standard. In these cases, the application of the International Accounting Standards issued by the International Accounting Standards Board (IASB) is mandatory.

2.4.2 The Environmental Disclosure Index

Much research in the field of environmental disclosure was conducted through the lens of organizational legitimacy. The management signals its efforts towards the welfare of particular stakeholders (i.e. the natural environment) and, consequently, communicates a congruency of actions and values with those of stakeholders seen as important in the legitimating process (Bowen, 2009). Reporting should be contemplated as a corporate communications tool which helps companies to be judged as "legitimate" by most, if not all, of their stakeholders in order to survive and prosper. Conceived as communications tools, annual reports and sustainability reports must focus on the organization as a whole and the task of how its operations are presented to all of its key stakeholders, both internal and external (Sahay, 2004). The extant literature adopts a variety of approaches to the

analysis of narratives in annual reports (Beattie, 2004), with the implicit underlying construct being the "quality" of disclosure. The semi-objective approaches specify ex ante a list of items and scrutinize the text for their presence, ignoring sections of the text that do not relate to this list. This is the approach taken by the large body of disclosure index studies and it is characterized in this paper as a partial type of content analysis. It is a fairly objective, form-oriented content-analytic method. Disclosure index studies assume that the amount of disclosure on specified topics is a proxy for the quality of disclosure. Coding schemes incorporate ordinal measures, to allow for the "quality" of the specific disclosure to be assessed (e.g.is the disclosure on topic X merely qualitative or is it quantified?). This is the approach adopted by Chan & Welford (2005), who observes that "disclosure quality is also important but very difficult to assess. As a result, researchers tend to assume quantity and quality are positively related". Disclosure index studies are based on the general principles of content (or thematic) analysis, which involves classifying text units into categories. Following coding, the form of analysis and interpretation that is undertaken can vary along a continuum from purely qualitative and verbally descriptive methods, to primarily quantitative methods that permit statistical analysis. Sustainability reports offer a window into corporate environmental and social strategy and performance, and make it possible to evaluate it as an adjunct to more familiar financial performance metrics. Depending on what companies choose to include in environmental and social performance reports, the reader can assess the degree of compliance with regulations, and compare performance with peer companies and across industries. Reports on corporate sustainability are generally prepared based on reporting criteria established by an outside organization or the company's internal guidelines. The dominant reporting guidelines are those of the GR1. The most comprehensive TBL reporting framework is undoubtedly the GR1 Guidelines. In 2001, the

European Commission (Green Paper “Promoting a European framework for corporate social responsibility" - COM (2001) 366 final) acknowledged that, on the environmental side, the GRI Guidelines were seen as best practice. The GR1 was formed by the US based non-profit Coalition for Environmentally Responsible Economies and Tellus Institute, with the support of the United Nations Environment Programmed in 1997. It released an "exposure draft” version of the sustainability reporting guidelines in 1999, the first full version in 2000; the second version was released at the World Summit for Sustainable Development in Johannesburg in 2002.

2.4.3 Intellectual Capital Information Disclosure

Intellectual Capital Disclosure is defined by Abeyesekera and Guthrie (2003) as a report intended to meet the information needs of users who are unable to command the preparation of reports about Intellectual Capital tailored so as to satisfy specifically all of their information needs. Intellectual Capital Disclosure represents an approach that can be used to measure intangible assets and describe the results of a company’s knowledge based activities (Ismail, 2008). Intellectual capital is a set of non-financial, non-physical resources that procures a competitive advantage for the enterprise (AL-Hamadeen & Suwaidan, 2014). They suggest that intellectual capital is the aggregate sum of intangible assets which comprise both human and structural capital. According to Bontis (2003), structural capital encompasses the hardware, software, database, systems, work processes, business models, organisational structure, patents, trademarks, trade secrets and all other codified knowledge. Roos (2005) define intellectual capital as all non – monetary and non – physical resources that are fully or partly controlled by the organisation and that contribute to the organisations value creation (Ping, 2012).

The type of intellectual capital disclosure is valuable information for investors, as it can help them to reduce the uncertainly of the company's future prospect and facilitate in valuing the firm (Bukh, 2003). Marr, Gray & Neeley (2003) note that corporate organizations need to disclose intellectual capital information in their annual reports to help formulate their strategies, assess strategy executions, diversification and expansion decisions and as avenue for compensations and to communicate measures to external stakeholders. Price water house Coopers (1999) notes that information disclosure of intellectual capital will facilitate transparency and inspire a sense of faith among the workforce and supports long term vision of the organisation (Vergauwen and Vanalem (2005) stated three opposing factors for intellectual capital disclosure, to include the transparency drawback in competitive markets; regulatory barriers; and, auditor conservatism. However, Neysi, Mazraeh and Mousavi (2012) stated that decision makers may be interested in receiving intellectual capital reports, the reasons they stated are: pursuit of quantification of intangible assets; timeliness of human behaviour as a proxy of performance; and defence against the distortion of GAAP-related financial calculations**)**.

It was observed that there is inadequate information disclosure provided in the previous traditional financial report and was insufficient to fulfil the stakeholders need and exposed them to risk like the investor's confidence; consequent of which firms subsequently disclose their information on Intellectual capital (Rahim, Atan &Amrizah, 2011). Damarchi, Amiri and Rezvani (2012) explained that rapid emergence of information and communication technologies increased the momentum of intellectual capital (IC) in 1990s. Azman and Kamaluddin (2009) noted that IC information disclosure reflects the company performance whereby it encourages users' better decision making and evaluation on the company for preceding periods as well as reducing

ambiguity as economic value derives from production of goods and creation of IC. Qualitative information disclosure of intellectual capital could assist to reduce the risk of a potential investor in making wrong decisions (Halim, 2013; An, Davey & Eggleton, 2011; Abeysekera, 2010. The European commission (2006) emphasizes two main reasons for intellectual capital reporting: (1) reporting of intellectual capital provides additional information which can be used to improve the management of the company as a whole (2) reporting of intellectual capital complements the financial statement of the company and therefore provides a broader , more truthful image of the company (Basta and Bertilsson, 2009). Internal strategic decision-making and external disclosure should focus on IC information such as staff competencies, managerial capabilities, customers and suppliers relationships, strategic collaborations, R&D, and organisational systems etc).

2.4.4 Risk Management Information

Another aspect of non financial information disclosure is in the area of risk management. An increased level of attention on the concept of risk disclosure has emerged due to the importance of risk disclosure in meeting the needs of current and potential investors by providing future information that help them to make various economic decisions.

Risk is defined as the possibility that an event will occur which will impact an organization's achievement of objectives (Institute of Internal Auditors (IIA, 2004). Solomon *et al*. (2000) define risk as "the uncertainty associated with both potential gain and loss" . Linsley and Shrives (2006) provided more specific definition of risk disclosure as any information disclosed to reader on any opportunity, prospect, hazard, harm, threat or exposure that has already impacted or may give an impact upon the company or management in future. According to Ismail and Rahman (2013), risk refers to any uncertainity faced by the organisation that

could lead to gains or losses. The importance of risk management was initiated when Cadbury Report in 1992 highlighted the code of best practiced requiring companies to establish audit committee and make disclosure on the effectiveness of internal control. The main issue being pointed out in the report was on the need for a company to review their internal control system and reporting risk to their shareholders. The Hampel Report in 1998 further emphasised on the whole system of internal control which led to the requirement for risk management disclosure as part of the internal control in Combined Code (The London Stock Exchange Limited, 1998; Ismail & Rahman, 2013).

Debate on the importance of risk reporting commenced as early as 1998 when the Institute of Chartered Accountants in England and Wales (ICAEW) published a discussion paper entitled "Financial Reporting of idiosyncratic, and could be a reliable leverage to manage high market uncertainty. Therefore, corporate risk exposure could be affected by only one ESG component rather than another one, considering that companies have endogenous characteristics and operate in different market conditions. In attempting to highlight the ESG single components' impact on asset Risk –Proposals for a statement of Business Risk. (Amran, Abdul ManafandChe Haat, 2009). Previous international studies had investigated the level of risk management disclosure.In Portugal, (Oliveira, Rodrigues and Craig, 2011), In Malaysia, (Amran, Abdul Manaf and Che Haat, 2009; Ismail and Rahman, 2013), In Dutch and Germanic countries, (Deumes and Knechel, 2008). In Nigeria, (Kakanda,Salim & Chandren ,2017), (Onyerogba,2014). Generally, those studies found that risk management disclosure level are too brief, vague and not sufficient for the stakeholders to make investment decision. This inadequacy problem in Risk management information disclosure has been recognized.Enhancing the transparency of financial reports and improving the disclosure quality is one of the corporate governance principles. The risk

disclosure can play a vital role in this issue through informing investors and other stakeholders about the uncertainty surrounding the business of the company, and thus help them to make more effective decisions. (Gao, 2008, p. 13; Cabedo and Tirado, 2004, p. 182) To estimate the volume and timing of a company's future cash flows in an appropriate manner, investors need to understand the risks facing the companies and through obtaining the information about analysis of the risks affecting the companies, measures used to assess these risks, and the procedures and actions taken to manage the exposed risks (ICAEW, 2002, p. 18). This is supported by the results of the survey carried out by Solomon et.al.,(2000) which revealed that a strong need exists for the expansion of the risk disclosure and this will help investors to improve their investment decisions.

The adequate disclosure about the risks can lead to a reduction of the information asymmetry problem between managers and investors as they can now be exposed to verifiable information.

Businesses are expanding globally; mangers and the Nigerian government can look to the latest published 29 prevalent global risks over a 10-year timeframe as an additional guide when reporting risk management. The most impactful risk for 2016 was reported as the failure of climate change mitigation and adaptation, followed by weapons of mass destruction, and water crises. The report also found that the risks rated most likely to occur are large scale involuntary migration and the environmental risks of extreme weather events and the failure of climate change mitigation and adaptation. Other global risks that remain serious include certain economic risks, cyber attacks, and profound social instability. (World Economic Forum).

The Global Risks Report advised that business models need to adapt to new demands and expectations. Increasingly, customers want to know not only about a business's own performance in areas such as child labor and environmental impact, but also about

the operations of its entire supply chain. They expect to have a voice in all aspects of its operations, from how production processes are set up to how distribution operations are developed and investment decisions around community initiatives are taken. Investors increasingly want access to this information as well, according to the earlier-mentioned EY study, in order to make more informed decisions with a view to long term profitability.

The case is becoming clear: organizations which are not already aware of their ESG impacts stand to benefit from greater disclosure and transparency in these areas, not only in terms of reputation and trust, but in terms of long-term profitability and investor interest.

2.4.5 Corporate Governance Information

Corporate governance is concerned with the ways through which parties interested in the wellbeing of a company (stakeholders) ensure that managers and other insiders take measures or adopt mechanisms to satisfy the interests of the stakeholders (Scaltrito, 2016). Such mechanisms become necessary given the separation of ownership from management, an increasing typical vital feature of the modern firm. However, one of the most widely-cited works providing a strong theoretical structure for corporate governance is that published by Jensen and Meckling (1976) in which they suggested that the firm can be viewed as a network of contracts, implicit and explicit, among various stakeholders such as shareholders, bondholders, employees, and society at large. Agency problems thus occur when the agents' interests are not in tandem with those of the principals owing to the fact that the management is separated from ownership. In practice, the interest of those (agents) who have actual control over a firm can differ from the interests of those (principals) who supply the firm with external finance.

The principal-agent problem is reflected in the management pursuing activities which may be harmful to the interest of the shareholders of the firm. Consequently, they noted that the principal can constrain the effects of this interest's divergence by incurring monitoring costs to curtail the agent's self-serving behaviour. The precise way in which the monitoring devices are set up to fulfill their role in a particular organization defines the nature and characteristics of that firm's corporate governance. Both authors acknowledged that the principal-agent theory, which was also adopted in this study, is considered as a starting point for any debate on the issue of corporate governance. Several corporate governance mechanisms have been proposed to alleviate the principal-agent problem between managers and their shareholders. These governance mechanisms as noted in agency theory include board size, board composition/independence, board gender diversity, effective audit committee, chief executive officer (CEO) pay performance sensitivity, directors' ownership and shareholder's right (Ghasempour & Yusuf,2014). Changing these governance mechanisms would drive managers to better align their interests with the shareholders' thereby resulting in a higher firm value (Berle & Means, 1932; Jensen & Meckling, 1976).

A firm's performance remains an important concept that relates to the manner in which an organization's available financial resources are judiciously used to achieve the overall corporate objective of the organization. Performance sustainability keeps an organization in business and gives a greater prospect for future opportunities (Kajola, 2008). Hence, good corporate governance practices can be seen to contribute to and enhance a firm's performance. Therefore, the role of corporate governance is critical to a firm's financial performance (Abu-Tapanjeh, 2006). This is because the opportunistic tendency of managers to engage in unethical practice is reduced in the presence of adequate corporate governance structure which ensures corporate conformance

with the interest and expectations of investors and other stakeholders by limiting the abuse of power, the siphoning-off of assets, the moral hazard, and the wastage of corporate-controlled resources and several other variants of the agency problem. Simultaneously, they establish the means to monitor managers' behaviour to ensure corporate accountability. In other words, the governance framework is there to encourage the judicious use of resources and equally to demand accountability of the stewardship of those resources. The purpose is to align as much as possible with the interests of stakeholders (Anandarajah, 2004).

A universally accepted definition does not exist for the term, corporate governance. Several definitions have emerged in order to provide an adequate conceptualization of corporate governance. However, they all share, explicitly or implicitly, some common elements. They all refer to the presence of conflicting interests between insiders and outsiders and emphasize on those arising from the separation between ownership and control. A common assertion of most corporate governance definitions implies a mechanism targeted to minimize problems created by separating ownership from control (Wells, 2010). In other words, corporate governance has as its core the decision-making process at the board of directors and top management level, and the mechanisms internal or external, which guaranty that decision-process outcomes are according to the objectives of the firm and its shareholders (Mohammed & Abubakart, 2014).

Amaeshi, Adi, Ogbechie & Amao (2016) referred to corporate governance as a system which ensures that managers and directors of organizations execute their functions within a framework of transparency and accountability. The reason most organizations

get into financial problems is revealed by this definition. Most companies in Nigeria often lack accountability and transparency in their business deals, and the boards of directors who are supposed to ensure that management complies with corporate governance principles are often weak, complacent and docile.

In this study, the adopted definition is the one given the Organisation for Economic Cooperation and development- OECD (2004) which defined corporate governance as a system by which business organisations are directed and controlled. Corporate governance structure shows the distribution of rights and responsibilities among different participants in the organisation, such as managers, shareholders, the board and other stakeholders. It also spells out the rules, regulations and procedures for corporate affairs decisions making. By so doing, it also provides a structure for setting the objectives of the company and the means of realizing those objectives and monitoring performance. This implies that corporate governance entails the authority, stewardship, accountability, leadership, direction and control exercised in the process of managing organizations.

Economic Disclosure Information Index

The economic dimension of sustainability concerns the organization's impacts on the economic conditions of its stakeholders, and on economic systems at local, national, and global levels. The Economic Category illustrates the flow of capital among different stakeholders, and the main economic impacts of the organization throughout society.

Direct Economic Value generated And Distributed

a. Report the direct economic value generated and distributed (EVG&D) on an accruals basis including the basic components for the organization's global operations as listed below. If data is presented on a cash basis, report the justification for this decision and report the basic components as listed below: Ÿ Direct economic value generated: – Revenues Ÿ Economic value distributed: – Operating costs – Employee wages and benefits – Payments to providers of capital – Payments to government (by country) – Community investments Ÿ Economic value retained (calculated as 'Direct economic value generated' less 'Economic value distributed'

b. To better assess local economic impacts, report EVG&D separately at country, regional, or market levels, where significant. Report the criteria used for defining significance.

Financial Implications and Other Risks and Opportunities for the Organization's Activities Due To Climate Change

a. Report risks and opportunities posed by climate change that have the potential to generate substantive changes in operations, revenue or expenditure, including: Ÿ A description of the risk or opportunity and its classification as either physical, regulatory, or other Ÿ A description of the impact associated with the risk or opportunity. The financial implications of the risk or opportunity before action is taken. The methods used to manage the risk or opportunity Ÿ The costs of actions taken to manage the risk or opportunity

Coverage of the Organization's Defined Benefit Plan Obligations

a. Where the plan's liabilities are met by the organization's general resources, report the estimated value of those liabilities.

b. Where a separate fund exists to pay the plan's pension liabilities, report: Ÿ The extent to which the scheme's liabilities are estimated to be covered by the assets that have been set aside to meet them. The basis on which that estimate has been arrived at Ÿ When that estimate was made

c. Where a fund set up to pay the plan's pension liabilities is not fully covered, explain the strategy, if any, adopted by the employer to work towards full coverage, and the timescale, if any, by which the employer hopes to achieve full coverage.

d. Report the percentage of salary contributed by employee or employer.

e. Report the level of participation in retirement plans (such as participation in mandatory or voluntary schemes, regional or country-based schemes, or those with financial impact).

Financial Assistance Received From Government

a. Report the total monetary value of financial assistance received by the organization from governments during the reporting period, including, as a minimum: Tax relief and tax credits Subsidies Investment grants, research and development grants, and other relevant types of grants Awards Royalty holidays Financial assistance from Export Credit Agencies (ECAs) Financial incentives Ÿ Other financial benefits received or receivable from any government for any operation

b. Report the information above by country.

c. Report whether, and the extent to which, the government is present in the shareholding structure.

Ratios of Standard Entry Level Wage By Gender Compared to Local Minimum Wage at Significant Locations of Operation

a. When a significant proportion of the workforce is compensated based on wages subject to minimum wage rules, report the ratio of the entry level wage by gender at significant locations of operation to the minimum wage.
b. Report whether a local minimum wage is absent or variable at significant locations of operation, by gender. In circumstances in which different minimums could be used as a reference, report which minimum wage is being used.
c. Report the definition used for 'significant locations of operation'.

Proportion of Senior Management Hired From The Local Community At Significant Locations Of Operation

a. Report the percentage of senior management at significant locations of operation that are hired from the local community.
b. Report the definition of 'senior management' used.
c. Report the organization's geographical definition of 'local'.
d. Report the definition used for 'significant locations of operation'

Development and Impact of Infrastructure Investments and Services Supported

a. Report the extent of development of significant infrastructure investments and services supported.

b. Report the current or expected impacts on communities and local economies. Report positive and negative impacts where relevant.

c. Report whether these investments and services are commercial, in-kind, or pro bono engagements

Significant Indirect Economic Impacts, Including The Extent Of Impacts

a. Report examples of the significant identified positive and negative indirect economic impacts the organization has. These may include: Changing the productivity of organizations, sectors, or the whole economy Ÿ Economic development in areas of high poverty Economic impact of improving or deteriorating social or environmental conditions Availability of products and services for those on low incomes Enhancing skills and knowledge amongst a professional community or in a geographical region Ÿ Jobs supported in the supply chain or distribution chain Stimulating, enabling, or limiting foreign direct investment Ÿ Economic impact of change in location of operations or activities Ÿ Economic impact of the use of products and services.

b. Report the significance of the impacts in the context of external benchmarks and stakeholder priorities, such as national and international standards, protocols, and policy agendas.

Proportion of Spending on Local Suppliers at Significant Locations of Operation

a. Report the percentage of the procurement budget used for significant locations of operation spent on suppliers local to that operation (such as percentage of products and services purchased locally).

b. Report the organization's geographical definition of 'local'.

c. Report the definition used for 'significant locations of operation'.

2.5 Theoretical Framework

The purpose of a theory in accounting is to ensure better accounting practice (Miller & Bahnson, 2010)

Several theories have been found through the literature to explain voluntary disclosure practices. It should be noted that multiple theories were used in this study for several reasons. First, using several theories allows overcoming the shortcomings of a single theory. In other words, no single theory could explain the relationship between disclosure and all of its determinants. Even though the agency theory is the most dominant theory in voluntary disclosure research, it does not provide an explanation for the impact of industry type on voluntary disclosure, whereas the signalling and political cost theories do provide such explanation. Second, using more than one theory helps in explaining different relationships found. Third, the use of multiple theories permits explaining relationships derived from different perspectives, such as explaining the relationship between company size and voluntary disclosure. Theories underpinning this study are discussed below

2.5.1 Agency theory

Jensen and Meckling (1976) define the agency relationship as "a contract under which one or more persons (the principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent." Agents correspond to managers, whereas principals correspond to shareholders from a companies' perspective. Agency costs stem from the assumption that the two parties, agents and principals, have different interests. Monitoring costs are paid by the principals, shareholders, to limit the agents' aberrant activities. Bonding costs are paid by the agents, managers, to guarantee that no harm of the principal's interests will result from their decisions and actions. Residual loss stems when decisions of the agents diverge from decisions that would maximise the principal's welfare. Accordingly, the agency cost is the summation of the monitoring cost, bonding cost, and the residual loss (Jensen and Meckling, 1976).

The agency relationship leads to the information asymmetry problem due to the fact that managers can access information more than shareholders. Optimal contracts is one of the means of mitigating the agency problem as it helps in bringing shareholders' interests in line with managers' interests. In addition, voluntary disclosure is another means of mitigating the agency problem, where managers disclose more voluntary information reducing the agency costs (Barako et al., 2006) and also to convince the external users that managers are acting in an optimal way (Watson et al., 2002).

The agency problem was first highlighted by Adam Smith in the eighteenth century The agency theory was initiated from the work of Adolf Augustus Berle and Gardiner Coit Means with main emphasis on agent and principal relationship in early 1932 (Berle & Means,1932). The agency theory was explored by Ross (1973), with the first detailed description of the theory presented by Jensen and Meckling in 1976. Both streams concern the contracting problem of self-interest as a motivator of both the

principal and the agent, and they share common assumptions regarding people, organisations and information disclosure. Berle and Means (1932) argument was that separation of ownership and control is one of the key features of modern corporations, and corporate governance has become necessary to mitigate the principal–agent problem. The agency relationship is described by Jensen and Meckling (1976) as a contract under which one or more persons (the principals) engage another person (the agent) to perform some service on their behalf, which involves delegating some decision-making authority to the agent.

The theory further explains that management acts as the agent of the corporation while the shareholders are the owner (principal) of the corporation. Shareholders are always expecting the agents to act in the best interest of the principal. Unfortunately, in many circumstances, the agents may act in their self-interest. Agency theory views the firm as a nexus of contracts between various economic agents who act opportunistically within efficient markets (Reverte, 2008). According to this theory, shareholders who are the owners of the corporation appoint managers or directors and delegate to them the authority to run the business for the corporation's shareholders (Clarke, 2004). The agency relationship between two parties is defined as the contract between the owners (principals) and the managers or directors (agents) (Jensen & Meckling, 1976). On the basis of the agency theory, shareholders expect the managers or directors to act by way of qualitative information disclosure and make decisions in the owners' interests. However, managers or directors may not necessarily always make decisions in the best interests of the shareholders (Padilla, 2002). The separation of ownership and control produces an innate conflict between the shareholders (principals) and the management (agents) (Aguilera et al., 2008). This conflict of interest can also be exacerbated by ineffective

management monitoring on the part of shareholders as a result of shareholders being dispersed and therefore unable, or lacking the incentive, to carry out necessary monitoring functions. Consequently, the managers of a company might be able to pursue their own objectives at the cost of shareholders (Hart, 1995).

Shareholder efforts to monitor the agent, for instance, shareholder engagement and incentive schemes or contracts lead to additional costs for the company. Grant (2003) argues that the main purpose of shareholders (principals) is to maximise their value (interest), whereas the main purpose of agents is to expand and grow the corporation because success will reflect favourably on management. According to Hart (1995), a corporate governance issue occurs in an organisation in the presence of two conditions. First, there is a conflict of interest or agency problem between members of the company. Second, the conflict of interest or agency problem cannot be dealt with through a contract.

Effective information disclosure and corporate governance can reduce agency costs and tackle problems related to the separation of ownership and control. The objective of corporate qualitative information disclosure and corporate governance then, is to encourage management and owners to make decisions or management to make the same decision that owners would have made themselves, such as investment in positive net present value (Shleifer & Vishny, 1997). Gursoy and Aydogan (2002) argue that the problems of the separation of ownership and control on the one hand, and cost agency on the other, could be reduced by the qualitative information disclosure or corporate governance because they promote goal congruence (Conyon & Schwalbach, 2000). However, Jensen (2001) highlights that these issues will increase if the corporate governance structure is weaken and no

adequate qualitative information disclosure. Therefore, the aim of the agency theory is to determine the most cost-effective governance method for tackling any possible agency issues (Dey, 2008).

According to the agency theory, corporate qualitative information disclosure are needed to mitigate the problems associated with the theory, which is designed to provide the basis of corporate governance through the use of internal and external mechanisms (Weir, Laing & McKnight, 2002; Roberts, McNulity & Stiles, 2005). Thus, the aim of the agency theory is to concentrate on shareholders' rights and the separation of ownership from control so that a company can maximise the wealth of its shareholders and as well information are disclosed. The classical article of Jensen and Meckling (1976) build on this theory and try to define agency relationship. According to Jensen and Meckling (1976, p.308),"an agency relationship as a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent. If both parties to the relationship are utility maximizers there is good reason to believe that the agent will not always act in the best interests of the principal".

The shareholders can control the agent by methods like auditing, formal control systems, budget restrictions and the establishment of incentive compensation system (Jensen & Meckling 1976).

Corporate reporting researchers and investors have also affirmed that firms can increase the monitoring of managers by ensuring that qualitative information are disclosed in the corporate report for the interest of shareholders. Therefore, non-financial

information disclosures in corporate annual reports are therefore considered part of the monitoring package to reduce the information asymmetry and agency problems with their resulting costs (Cormier, Ledoux & Magnan, 2011). Empirical results for the above reasoning are limited, although agency theory predicts a positive relation between ownership, profitability and qualitative information disclosure (Adrem, 1999). According to Vu (2012), using agency theory, it is argued that companies with higher management of ownership structure may disclose less information to shareholders through voluntary disclosure. The demand for more information from the agents by the principals arises as a result of separation of ownership of companies' resources from those who control it (Hassan *et al*, 2009). However, this demand may not be met as agency problems remains on the increase. This has spurred many studies to investigate what spurs the agency problems in a company and hence, affect corporate disclosures. It is believed that non-financial information can go a long way in solving agency problems.

Agents correspond to managers, whereas principals correspond to shareholders from a companies' perspective. Agency costs stem from the assumption that the two parties, agents and principals, have different interests. Monitoring costs are paid by the principals, shareholders, to limit the agents' aberrant activities. Bonding costs are paid by the agents, managers, to guarantee that no harm of the principal's interests will result from their decisions and actions. Residual loss stems when decisions of the agents diverge from decisions that would maximise the principal's welfare. Accordingly, the agency cost is the summation of the monitoring cost, bonding cost, and the residual loss (Jensen and Meckling, 1976).

2.5.2 Stakeholders Theory

Stakeholder theory ideology can be traced back to Clark (1916) and later to Dodd (1932) as cited in Mahoney (2010). Edward Freeman was one of the first theorists to present the stakeholder theory as inherent in management discipline in the eighties (Freeman, 1984; Freeman, Wicks, & Parmar, 2004). The argument behind the theory was that economic theories were based on outdated images of the firm. New ways of thinking about business organization were owned by various stakeholders (Learmount, 2002). Stakeholder theory is a theory of organizational management and business ethics that addresses morals and values in managing an organization (Asemah, Okpanachi & Olumuji, 2013).Meanwhile, stakeholder theory begins with the assumption that values are necessarily and explicitly a part of doing business, and rejects the separation of economic from ethical values (Freeman *et al.*, 2004). Freeman and Reed (1983) have identified stakeholders as "the groups who have an interest in the actions of the firm. In a follow up study, Freeman (1984) revisited stakeholder theory and redefined stakeholders as any individual or group who has an interest in the firm because he (or she) can affect or is affected by the firm's activities. Carroll (1999) has defined stakeholders as any individual or group who can affect or is affected by the actions, decisions, policies, practices, or goal of the organization. Yi, Davey, and Eggleton, (2011) noted that stakeholder theory extends the shareholder point of view to involve various stakeholders associated with the firm.

Stakeholder theory suggests that an organization will respond to the concerns and expectations of powerful stakeholders and some of the response will be in the form of strategic information disclosures. A stakeholder theory is very much concerned about active management of the business environment, relationships and the promotion of shared interests in order to develop business

strategies. Such strategic information disclosure when viewed in the light of this study is non-financial or qualitative information disclosure. According to Wheeler and Sillanpaa (1997), the stakeholders that should be taken into consideration in the governance structure include investors (including banks), managers, employees, customers, business partners (suppliers and subsidiaries), local communities, civil society (including regulators and pressure groups) and the natural environment.

The relationship between the company and its internal stakeholders (such as employees, managers and owners) is framed by formal and informal rules that have been developed in the course of the relationship. The stakeholder theory supports the contention that companies and society are interdependent and therefore the corporation serves a broader social purpose than its responsibilities to shareholders (Kiel & Nicholson, 2003). This shows that stakeholder theory focuses not only on shareholders, but it has been expanded to take into account the interests of many different stakeholder groups, including interest groups with social, environmental and ethical considerations (Clarke, 2004). Directors are expected to be in a position of trust and able to manage the company in a way that creates long-term sustainable value, while simultaneously considering their relationships with wider stakeholder groups the including employees, customers, suppliers and communities that their activities affect. Stakeholder relationships have direct and indirect effects on firm performance (Berman, Wicks, Kotha, & Jones, 1999).

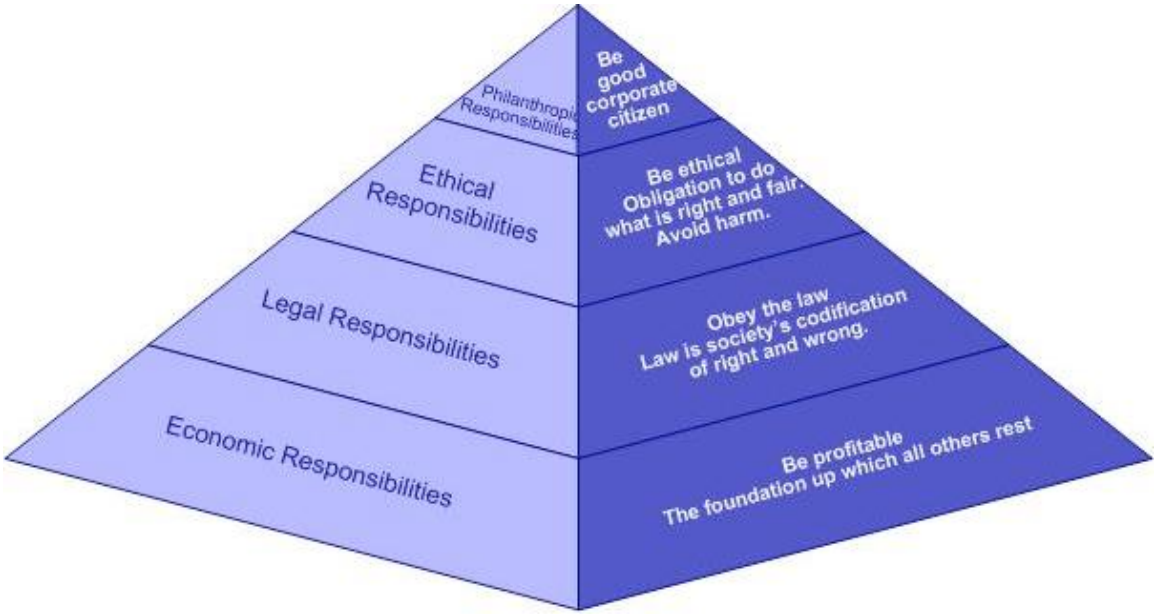
The management has a responsibility to ensure that shareholders receive a fair return on their investments; it also has a responsibility to all stakeholders and should manage and alleviate the conflicts of interest that may exist between the firm and its stakeholders by way of qualitative information disclosure in the corporate report (Prugsamatz, 2010).The stakeholder theory

serves to build good relationships between firms and various internal and external stakeholders in the broader environment, as it is essential for the implementation and improvement of effective governance mechanisms and processes (Christopher, 2010). Olatunji (2013) avers that the stakeholder's concept enables corporate organization management to address various groups associated with the firm like shareholders, employees, customers and suppliers, as well as the needs of those of emerging groups including governments, competitors, consumers, advocates, environmentalists and special interest groups. Stakeholder theory provides rich insights into the factors that motivate managerial behaviour in relation to environmental disclosure practices of organizations and other qualitative disclosures (Dibia & Onwuchukwa, 2015). For instance, action of stakeholders can bring firms to disclose qualitative information disclosure. Previous researches which utilized this theory indicate that organizations respond to the expectations of stakeholders groups specifically and generally to those of the broader community in which they operate, through the provision of qualitative information disclosure within annual reports (Dibia and Onwuchukwa, 2015). As such interests of stakeholders are fundamental in qualitative information disclosure.

In effect, there are three (3) levels that explain company's reactions in line with the stakeholders' theory. The first level explains the company's reaction towards the demand from a broader base of stakeholder (Husillos & Alvarez, 2008; Sweeney & Coughlan 2008; Dincer (2011). The second level is consistent with the corporate response, which is concerned with qualitative disclosure in the corporate report (Kent and Chan, 2009), while the third level referred to the economic performance that will determine the financial strength and weaknesses of the corporation (Elijid Van der Laan, 2009). It was observed that higher achievement will be

arrived through disclosing of qualitative information (Jamali, Safieddine, & Rabbath, 2008). It is stakeholders' views that non-financial information are disclosed.

Additionally, Carroll also gave an extensive classification of stakeholders assessment of the overall operation of the organisation as it affects the interest and wishes of the stakeholders.



Carroll's pyramid

Each of these levels depends on those which precedes it, the satisfaction of both first one (Economic and legal responsibilities) is requested by the society, that of the third one (ethical responsibility) is expected, that of the fourth one (philanthropic responsibility) is wished. These levels, crossed with the various groups of stakeholders, can serve as reference to define the various categories of

social and environmental performance that have to be estimated (D.J. Wood, 1991). Here lies the relevance of this theory to this study.

2.5.3 The Complicities of Stakeholder Theory

A popular framework touted by many management scholars for addressing organization- environment interactions is stakeholder theory. This approach continues to receive a great deal of attention in recent times as is evidenced by the publication of dozens of books and more than 100 articles in journals (Donaldson & Preston, 1995). While conventional theories of the firm focus on its responsibilities toward its shareholders, a stakeholder perspective takes a broader view and implies that a company should consider the needs of all its stakeholders. Stakeholders are defined as any group or individual who can affect or is affected by the organization's objectives (Freeman & Reed, 1983). This broad view is not without its problems: different stakeholders have differing stakes and balancing the needs of competing stakeholders is not an easy task. Moreover, stakeholder theory is derived from Western notions of (economic) rationality and fails to address needs of several marginalized groups like indigenous stakeholders.

A stakeholder perspective is also supposed to be helpful in analysing and evaluating an organization's "social performance" in terms of how it manages its relationship with society (Clarkson, 1995). Stakeholder theory is normative with moral overtones. It

focuses on what a company "should" do in order to fulfil its societal responsibilities. It is also instrumental in that it is expected to lead to better organizational performance (a hypothesis that is yet to be tested); and it is descriptive in that it posits a model of the corporation as a constellation of cooperative and competitive interests possessing intrinsic value (Donaldson & Preston, 1995). The normative core of stakeholder theory is said to be a driver of corporate social performance and once managers accept their obligations to stakeholders and recognize their legitimacy, the corporation is well on its way to achieving its moral principles (Clarkson, 1995). This is a simplistic argument that fails to recognize the inability of a framework to represent different realities and the effects of using a single lens to view issues such as legitimacy and responsibility.

Proponents of stakeholder theory claim that corporate social performance can be evaluated based on the management of a corporation's relationships with its stakeholders. The fact that social performance needs to be "managed", implies that, as is done with business ethics, it is deployed as a strategy designed to benefit the corporation. Who decided what is socially appropriate? Who assesses it? Social appropriateness is often subsumed under notions of "progress" and "development" and obscures the fact that somebody is defining appropriateness and somebody else is being appropriated. The literature on stakeholder theory also distinguishes between a "social" issue and a "stakeholder" issue. According to Clarkson (1995), a particular society determines what a social issue is and the representative government enacts appropriate legislation to protect social interests. Hence, a test whether an issue is social or not is the presence or absence of legislation. Thus, health and safety, equal opportunity, and environmental issues are social issues because legislation exists. This is an unsatisfactory argument that fails to address the fact

that segments of society are legislated against. For instance, in the case of indigenous communities throughout the world, legislation designed to protect their rights is often a legacy of colonialism, regulated by neo-colonial modes of control through neo-colonial institutions. If there is no legislation, the issue becomes a "stakeholder issue" which needs to be addressed at the corporate level (Clarkson, 1995).

The argument that business "should" be socially responsible stems from the notion that society grants legitimacy and power to business and in the long run, those who do not use power in a manner which society considers responsible will tend lose it (Davis 1973). Economic systems, governments and institutions often determine what is "legitimate" and this power to determine legitimacy cannot be easily lost. While customers, employees, shareholders and governments may be able to "withdraw legitimacy", forcing a corporation to either change its approach or perish, the power of marginalized communities to do so is severely constrained. Because the scope and level of application for determining boundaries of legitimacy is institutional and societal, stakeholder theory urges organizations to be "publicly responsible, for outcomes related to their primary and secondary areas of involvement with society" (Preston & Post 1975; Wood, 1991). This principle of public responsibility is designed to make larger societal concerns more relevant by providing behavioural parameters for organizations. However, social responsibilities should be relevant to the "organization's interests" (Wood, 1991) and therein lies the problem: these "public" responsibilities are defined and framed by larger principles of legitimacy, principles that are inimical to several marginalized

stakeholders in the first place. Thus, the parameters that define a "social outcome" are determined by a system of rules and exclusions that may not address these concerns.

The public-private dichotomy of stakeholder representation does not legitimize stakeholder interests, instead it serves to regulate stakeholder behaviour. Who is seeking stakeholder input? For what purpose? Public interests are represented by government agencies that seek stakeholder input to obtain information designed to legitimize support for their decisions. If the institutional and organizational levels of corporate social responsibility are inimical to stakeholder interests, then the principle of "managerial discretion" (Carroll, 1979) is even more constrained. According to Wood (1991), managers are moral actors. Within every domain of corporate social responsibility, they are obliged to exercise such discretion as is available to them, toward socially responsible outcomes. Individual managers' role in accommodating stakeholder interests is predefined at higher levels and practices at this level are governed and organized by organizational and institutional discourses. The search for a legitimate, normative core for stakeholder theory must therefore be treated with caution with the understanding that this search, like any search, is predicated on institutional interests.

In an attempt to identify which stakeholders really count, Mitchell et al. (1997) classified stakeholders based on their possession of three attributes: power (the stakeholder's power to influence the company), legitimacy (of the stakeholder's relationship with the company) and urgency (the extent to which the stakeholder's demands require immediate attention). However, the major weaknesses of this theory is applied on continuous basis in organization and sometimes the assessment of the analysis of this

theory may be subjective and it is also not possible that all stakeholder interests can be met at the same time and as usual company can give more importance to stakeholders like shareholders of the company instead of employees and consumers. In addition to the already discussed reasons we can conclude that there are also some disadvantages of stakeholder theory. But these weaknesses of this theory can be remedied by identifying the stakeholder likely to be affected by the decision of the organization and after detection try to satisfy them is also important to calculate that what will be the reaction of stakeholder after the decision taken by organization and also plan to handle them. Organization should try to identify success criteria of all the stakeholders. Organizations need to develop cooperation culture with their stakeholders. The attempt by this study to examine the possible effect of disclosure on different stakeholders by examining their various interest (environmental, intellectual capital, risk management) is hoped to attend to a broader audience of stakeholders.

2.5.4 Legitimacy Theory

Legitimacy theory has been viewed as one of the most discussed and cited theories to state the rationale behind information disclosures whether qualitative or quantitative in corporate report or communication (Mousa & Hassan, 2015).Yet there remains deep skepticism amongst many researchers if it offers any real insight into the voluntary disclosures of firms. The concept of legitimacy is fundamental in explaining relationships between firms and their operating environments. Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions (Suchman, 1995).

Legitimacy theory is derived from the concept of organisational legitimacy conceived as congruence between institutional actions and social values, and legitimisation as actions that institutions take either to signal value congruency or to change social value (Preston, Cooper, Scarbrough & Chilton, 1995). legitimacy theory explains that firms persistently try to ensure that they carry out their activities within the boundaries and norms of their relevant communities. In assuming a legitimacy theory perspective, a corporate organisation might voluntarily disclosure activities if management perceived that those activities were expected by the communities in which it operates (Deegan 2002).

Legitimacy theory does offer a powerful mechanism for understanding voluntary social and environmental disclosures made by corporations, and that this understanding would provide a vehicle for engaging in critical public debate. O'Donovan (2002) argument was based on experimental evidence, that the lower the perceived legitimacy of the organisation, the less likely it is to bother providing qualitative information in the corporate report.

Corporate organizations trying to restore or sustain legitimacy might see qualitative information disclosure completely different compare to those who attempt to institute it Campbell, Craven and Shrives (2003) study tries to examine the extent to which voluntary disclosures represent an effort to bridge up an identified legitimacy gap by indicating that the level and blueprint of disclosure by firm may vary depending on whether the firm's key product has chiefly negative implications in the eyes of some constituencies or structurally illegitimate (like tobacco companies), or the firm's major product is basically an enviable product which could give rise to some adverse effects. It was argued that this may be because companies in different industries have

differing motivations towards legitimating owing to the different perceptions that various stakeholders have with regard to their activities, and how the management of the companies themselves perceive opinions about them (Campbell, Craven & Shrives 2003).

Hooghiemstra (2000) argues that companies use corporate social reporting as a corporate communication instrument to influence people's perceptions of the company. Deegan, Rankin and Voght (2000) maintain that companies consider that social disclosure in annual report as a useful device to reduce the effects upon a corporation of events that are perceived to be unfavourable to a corporation's image. Gray, Kouhyand Lavers (1995) suggest that firms make use of their social reports to create themselves and their relationships with others as they strive to make and maintain the conditions for their continued profitability and growth. Legitimacy theory supposed that a corporate organization is expected to make sure that its actions and behavior are similar with whom it believed has the required qualities to affect the firm's image and existence (O'Donavan, 2000). Hence, qualitative information disclosures are necessary such that firms can legitimize their activities for the interest of stakeholders.

From the above three (4) theories (agency, stakeholders, legitimacy and positive accounting theory) reviewed, this study is anchored on the stakeholders theory. Stakeholders include stockholders, creditors, managers, employees, customers, suppliers, local communities (communities in the vicinity of the company's operations) and the general public (Dibia & Onwuchukwa 2015). According to Jensen (2001), the stakeholder theory solves the problems caused by multiple objectives, as this theory seeks to maximise value in the long term. According to Clarke (2004), if corporate managers are there to maximise the total wealth of the organisation, they must take into account the effects of their decisions on all stakeholders. Moreover, if management decisions

do not take into account the interests of all stakeholders by way of disclosure, the firm cannot maximise its value. Pesqueuy and Damak-Ayadi (2005) indicate that the practice of stakeholder management will result in higher profitability, stability and growth, and will thus affect, investment, ownership structure and firm performance.

Analytical Framework

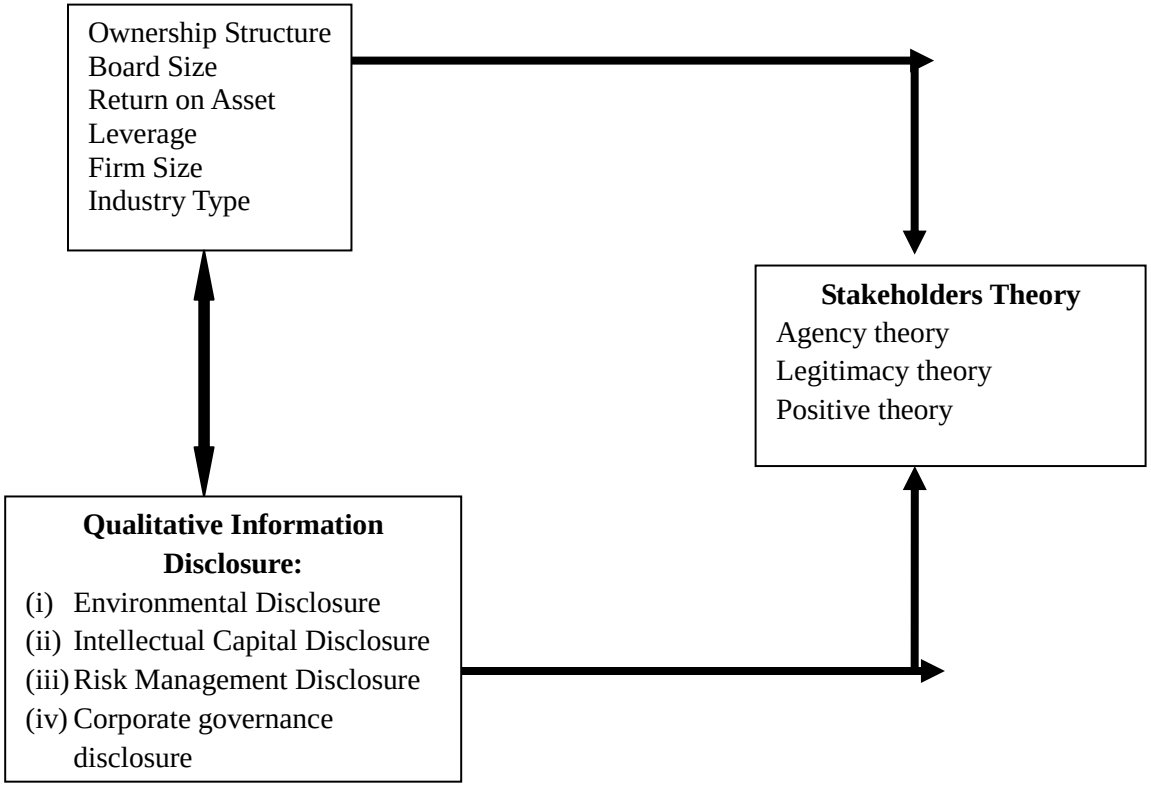


Fig 1: Conceptual model of firm characteristic and non-financial disclosure

Source: Researcher's Conceptualisation (2018)

Fig 1 shows the links between the studied variables and the theories of the study. It is obvious from the conceptual model that the basis of this study is established on non-financial information determinants of consumer and industrial goods companies in Nigeria.

The figure represents the foundation to empirically investigate the predictive ability form characteristics on non-financial information disclosure.

More specifically, we want to determine the ability of form characteristics to influence the non-financial disclosure.

To achieve, this, we investigate the different influence attributes of forms and corporate governance has on the non-financial components of voluntary disclosure.

In conclusion, the utmost level of the model after testing all indicator's is linked to ability of consumer and industrial goods to disclose non-financial information.

This analytical framework in Figure 1 above depicts the schematic representation of the causal relations with the dependent variables (i.e. Non financial information Disclosures) which includes: i) Corporate Social Environmental Disclosure; ii) Intellectual Information Disclosure; iii) Risk Management disclosure; and iv) Corporate Governance disclosure and the independent variables (company-related characteristics) which consists of ownership structure, Industry type, profitability, leverage, firm size) for the proposed of this study. It is on this foundation this study intends to establish a possible influence of firm attributes in explaining non-financial information disclosure.

To achieve this, we actually investigate the association between firm attributes and corporate governance attribute variables which are believed in literature to influence activities of companies.

The utmost level of the model after testing all predictors is linked to non-financial disclosure of consumer and industrial goods.

2.6 Empirical Review

Several extant studies have examined the relationship between Corporate characteristics and non financial information disclosure and given empirical evidence on the determinants of non financial information disclosure in corporate reporting.

Guidry & Pattern (2019) sought to determine why a growing number of environmental disclosure studies are using financial control variables based on arguments from the voluntary disclosure theory (VDT). The VDT justifications for these controls are based on assumptions that disclosure is used as a tool for reducing information asymmetry between managers and investors. Given the findings reported in a broad sample of legitimacy-based environmental disclosure studies, they sought to determine whether the disclosures are primarily aimed at the market, and as such attempt to assess evidence to date on the relation between VDT financial control variables and differences in environmental disclosure. Based on a review of thirteen recent environmental disclosure studies including VDT financial control variables in their analyses, they results show no association with the exception of firm size.

Adefemi, Hassan, & Fletcher (2018) analyzed corporate governance disclosure in Nigerian listed Companies. Secondary data from 31 companies from five different listed on the Nigerian stock exchange from 2010-2013 was employed for the study. The panel regression result showed that asset turnover, board composition and number of employees significantly explain corporate governance disclosure. While return on assets, return on equity and earnings per share were not significant in explaining corporate governance disclosure. The study therefore suggest that profitability does not improve or determine disclosure compliance of companies in Nigeria.

Alsmady (2018) analyzed the effect of ownership structure on the quality of financial reporting (QFRs). The study examined ownership concentration and individual investors both foreign and local. Ownership concentration endogeneity, company age, a log of total sales and industry affiliation are controlled for in the models. Sixty eight annual reports collected from Jordanian companies listed on Amman Stock Exchange (ASE) for the period 2005 to 2015 were used for the study. The result showed that ownership concentration variable has no significant effect on voluntary disclosure. While, individual foreign ownership, company age, a log of total sales and industry affiliation had a positive effect on voluntary disclosure. The results support the agency theory and reveal that higher ownership concentration reduces voluntary disclosures.

Franke (2018) analysed the relationship between a firm's non-financial disclosure and its loan terms. In particular, loan terms was used to study how textual disclosure relates to banks' assessment of a firm's creditworthiness. An analysis of the linguistic tone of the Management's Discussion and Analysis (MD&A) section in firms' 10-K filings reveals a significant association between a

firm's disclosure and its loan terms. This is a further indication that firms with a more negative tone face higher loan spreads and stricter contract terms, such as requiring collateral and shorter maturities, in its subsequent issuance. In line with banks limiting their exposure to credit risk using the contract terms, the tone has predictive abilities concerning future firm failures, even after controlling for known default predictors. Overall, these findings suggest that textual narratives contain incremental information about a firm's economic situation as intended by regulation and loan terms reflect this information accordingly.

Lundberg & Ahman (2018) examined the effect of firm characteristics on voluntary disclosure of Swedish companies. The ordinary least square regression analysis of secondary data of 91 companies over a 7 year period revealed that firm visibility and leverage have a positive relationship with disclosure quality while ownership concentration showed a negative correlation with the level of disclosure.

Discretionary environmental disclosure of corporations in Nigeria was studied by Mgbame (2018). The study employed the binary probit regression model for data analysis to identify the extent of environmental disclosure in annual report of selected Nigerian companies. Findings of the analysis reveal that firm size, firm performance, availability of cash and age of firm are significant determinants of the extent of environmental disclosure.

Nyahas, Ntayia and Muene (2018) investigated stakeholders influence on voluntary disclosure practices of listed firms in Nigeria from the perspective of managers.. The data for the voluntary disclosure practices were obtained from financial reports of 92 listed companies. The data were analysed using partial least squares. The results indicate that managers' perception of

stakeholders' power and urgency are associated with voluntary disclosure. The result also revealed that Legitimacy, firm size and industrial category are not significant predictors of voluntary disclosure.

Odomelam & Okafor (2018) examined the influence of corporate governance on environmental disclosure of nonfinancial firms listed in Nigeria Stock Exchange (NSE), anchoring on "Trinity theory" (agency, stakeholder and legitimacy theories using content analysis, cross-sectional data, OLS regression techniques were used to analyze 86 firm-year observations across 86 companies listed in Nigeria Stock Exchange (NSE).The results show that board independence, board meeting, and the environmental committee were statistically significant while audit committee independence and board size were insignificant. Among the three company attributes used to mitigate spurious result only firm size significantly influence the quantity of overall environmental disclosure of the sample companies. Auditor type "big 4" (Ernest Young, Deloitte, KPMG, and PwC) and industry membership show insignificant relation to environmental disclosure. The findings indicate that the level of environmental disclosure of nonfinancial companies in Nigeria is quite insufficient at an average of 10.5 percent. It is not surprising that environmentally sensitive industry and auditor type had no significant influence on the extent of environmental disclosure. This buttress the point that the environment the companies operate is institutionally and legally weak.

Omoye and Oshilim (2018), studied antecedents of voluntary environmental disclosure among quoted firms on the Nigerian Stock Exchange.. Content analysis and historical data were obtained from financial statements and accounts of 118sampled firms. The result of the analysis revealed that firm size and profitability have significant and positive relationship with environmental

disclosure, managerial shareholding has significant influence and negative relationship with environmental disclosure while leverage and industry type were statistically insignificant, but leverage was negatively related while industry type was positively related.

Oraka, Egbunike and Gunardi, (2018) examined factors the influence of corporate board attributes on voluntary social disclosure of selected quoted manufacturing firms in Nigeria. Corporate board attributes was proxied by board size, board ownership, board structure, proportion of women in the board, CEO duality, proportion of non-executive directors, and directors' remuneration. The study adopted a correlational research design to determine the direction and magnitude of relationship between the variables of forty five Manufacturing Companies quoted on the Nigerian Stock Exchange. The result show a significant positive influence between board size, board structure, proportion of women on the board and directors remuneration and voluntary corporate disclosure while a significant negative influence exists between board ownership and CEO duality and voluntary corporate social disclosure.

Oti & Mbu-ogar (2018) evaluated the impact of environmental and social disclosure on the financial performance of quoted oil and gas companies in Nigeria .Time series data for five years were collected and analyzed using the ordinary least square regression technique. Results from the statistical analysis revealed that disclosure on employee health and safety and community development do not significantly affect financial performance while disclosure on waste management had a positive and

significant effect on firm's financial performance. The study recommended that oil and gas companies should constantly review their waste management strategy.

Mandatory social and environmental disclosure is considered by Sani (2018). In his study of the performance evaluation of listed Nigerian companies pre and post disclosure era of 9 listed oil and gas companies listed on the Nigerian Stock Exchange ,the study revealed a 53% increase in volume of social disclosure and 25% increase in volume of environmental disclosure after adoption by these companies. The panel regression also showed that company size has a positive and significant relationship with disclosure.

Wachira (2018) examined the relationship between risk disclosure and firm characteristics of companies quoted on the Nairobi Securities Market. The study involved all non financial firms listed on the NSE between years 2010 and 2016. A regression analysis was conducted using the random effect model to determine the relationship between the disclosure index and firms' characteristics. The results show that risk disclosure was positively related to gearing level, company size, profitability, and the industry type. However, it was not found to be related to the liquidity level, ownership and board composition.

Diq (2017) investigated the ownership structure and voluntary disclosure of listed financial service companies in Nigeria. Using Pearson correlation regression analysis, the study showed that managerial ownership is insignificant and has a positive effect on voluntary disclosure. Also, firm size and firm age showed a positive relationship with voluntary disclosure.

Also in Nigeria, Dugu & Eboigbe (2017) investigated the corporate attributes and corporate disclosures level of listed companies. The ordinary least square regression result showed that firm size has a significant positive association with mandatory disclosure.

Egbunike and Tarilaye (2017) examined the association between firm's specific attributes (firm size, earnings, leverage and governance) and voluntary environmental disclosure with evidence from listed manufacturing companies in Nigeria for the period 2011-2015.Results of data analyzed using both descriptive and inferential statistical tools showed a positive relationship between environmental disclosure, firm size, leverage, earnings per share and governance of the studied manufacturing companies in Nigeria.

Bose, Saha, Khan & Islam (2017) examined the effect of non-financial disclosure and market based firm performance. Ordinary least square was used to analyze the annual report of 30 banks in Bangladeshi. The result of the study revealed that firms engagement in non financial disclosure activities increases their market share, reduces the information asymmetry between managers and capital market participants.

Modugu & Eboigbe (2017) examined corporate attributes and corporate disclosure level of listed companies in Nigeria. A post IFRS adoption study. The study examined the annual reports of 60 companies from 2012-2014 using descriptive statistics and OLS. Findings of the study reveal a negative relationship exist between leverage and mandatory disclosure while firm size and leverage both show a positive relationship with voluntary disclosure. Furthermore, the combined effect of leverage and firm size are positively associated with total disclosure.

Rabiu &Ibrahim (2017) investigated the impact of ownership structure on voluntary disclosure of listed financial service companies for the period 2006-2015. The Pearson correlation and regression analysis revealed that managerial ownership has an insignificant and positive effect on voluntary disclosure while firm size and firm age show a positive relationship with voluntary disclosure.

Sadiq &Mohammed (2017) examined ownership structure and voluntary disclosure of listed financial services companies in Nigeria. The result revealed that managerial ownership is associated with voluntary disclosure.

Uwuigbe (2017) examined the impact of ownership structure on financial disclosure quality of 75 firms listed on the Nigerian Stock Exchange (NSE) during the period 2011-2015. The study modeled financial disclosure quality using both accounting measure (ACCR) and market based measure (RET). The study used foreign ownership, managerial ownership and institutional investors as ownership structure attributes. The data used for the study were collected from the annual reports, company's website and African financials website for the periods of 2011 to 2015.The General least square (GLS) regression method was used to estimate the parameters of the model. Findings from the study revealed that there is significant relationship between institutional investors, managerial ownership and quality of financial disclosure. However, the study did not include other corporate governance variable to determine the effect they have on financial disclosure.

Rabiu & Ibrahim (2017) studied the impact of Ownership Structure on Voluntary disclosure of listed financial service firms in Nigeria over the period 2006-2015. Using a sample of twenty-eight out of fifty-seven financial services firms listed on the

Nigerian Stock exchange, The regression analysis result revealed that managerial ownership showed an insignificant and positive effect on voluntary disclosure, while the control variable (Size and Age) showed a significant positive relationship with voluntary disclosure. The findings are an indication that larger boards are associated with voluntary disclosure also; the variation in the extent of voluntary disclosure in annual reports cannot be explained by managerial shareholding due to the fact that the shares owned were insignificant.

Mgammal (2017) examined the effect of Corporate Governance characteristics (ownership structure) on the extent of voluntary disclosure in the financial reports of non-financial listed firms in Saudi Arabia. Investigating the influence of variables, such as ownership structure (managerial ownership, family member on the board and government ownership level) and control variables (size, leverage and return on assets), in relation to the level of VDS in non-financial companies listed on the Saudi Stock Exchange. The results suggest that the corporate governance-related variables influenced the level of information disclosed. Also, the Corporate G0vernance characteristics showed that all the variables were significantly positively linked to the level of Voluntary Disclosure.

In Nigeria,Ayuba and Oba (2016) studied the characteristics that predict the extent of web-based disclosures. Using regression analysis the extent of prediction was examined. Results indicate that the firm size and industry type are significant determinants of web disclosures. However, other firm traits such as ownership dispersion and financial performance do not significantly explain the extent of internet disclosures.

Avwokeni (2016) examined compliance with the corporate social disclosure requirement of United Nations and whether the voluntary declaration by the International Accounting Standards Board detracts from compliance. Qualitative, financial and non-financial disclosures, based on core indicators developed by the United Nations Conference on Trade, Aid and Development, were garnered from financial statements prepared before and after IFRS adoption. The results showed corporate social disclosure on employment creation and labor practices; welfare, health and safety; and environment, improved during the IFRS regime. This improvement is associated with size of the firm, not audit identity, ownership or capital structure. This finding provides evidence to clinch anecdotal claims that even in the absence of laws some agents would still operate to meet the information needs of their principal.

Awa (2016) empirically examined the effect of board composition, firm size, audit type and voluntary disclosure of forward looking information in the banking sector. The result of the multiple regression analysis showed that firm size significantly affects the level of voluntary information disclosure.

Musa , Teru, & Burkar (2015) studied the determinants of environmental disclosure in Nigeria. The binary regression analysis was used to test the association of firm characteristics and environmental disclosure of oil and gas companies in Nigeria. The findings demonstrated that a significant relationship exist between firm size, profit, leverage and audit type and environmental disclosure of the studied firms.

Ofoegbu & Megbuluba (2016) analyzed the corporate environmental accounting information disclosure in Nigeria. The panel data for seven year period 2008-2014 of ten selected manufacturing firms in Nigeria was analyzed with panel data least square

regression and the results showed a significant relationship between performance and corporate environmental information disclosure in Nigeria.

Okoye, Ebubechukwu & Agweda (2016) ascertained the effect of non-environmental cost disclosure on financial and economic performance of firms listed on Nigeria stock Exchange (NSE). The study adopted expost facto research design to investigate three cement industries listed on Nigeria stock Exchange for the period 2010 to 2014 through simple random sampling techniques. Multiple linear regressions was used to test the data obtained from content analysis of the annual reports of the firms. Findings of the analysis showed that non-environmental cost disclosures have significant effect on the firms' profitability, efficiency and liquidity.

Odhiambo (2016) investigated the differential reporting of social and environmental disclosure between local and foreign oil companies in Nigeria. The Kruskal Wallis and Mann Whitney test revealed that local companies were found to provide more content and wider variety to social environmental disclosure than foreign oil companies in Nigeria.

Shiri (2016) examined the impact of ownership structure and disclosure quality on information asymmetry phenomenon among listed companies on the Tehran Stock Exchange (TSE). Ownership structure (including ownership concentration and institutional ownership) and disclosure quality (including reliability and timeliness) were considered as independent variables, and their impact is examined on the dependent variable (information asymmetry).

The statistical results, based on data collected from 102 listed companies on the TSE during 2007–2014, revealed positive impact of ownership structure and negative impact of disclosure quality on information asymmetry. These results show that information

asymmetry is less in firms that published more reliable and timely information, and is more in firms with more concentrated ownership structure, higher institutional ownership, and lower disclosure quality.

Ikpor and Agha (2016) carried out a study on the determinants of voluntary disclosure quality among listed firms in Nigeria. Data was sourced from 123 corporate annual reports of firms listed on the Nigeria Stock Exchange from 2000 to 2014. Generalized Method of Moment (GMM) regression technique was used to test the statistical significance of the hypotheses of the study. The results indicate that profitability has significant effect on voluntary disclosure quality of listed firms in Nigeria.

Ikpor and Agha (2016) examined the extent of voluntary information disclosure in Nigeria. The increase in the public demand for more disclosure accounting information motivated this study using panel-data analysis for 40 listed companies (2004-2008) and after controlling for both linear and non-linear properties in the model. The empirical results showed that size of the company has a positive but decreasing impact on voluntary information disclosure.

Onuorah , Anastasia &Imene (2016) studied the effects of corporate governance and financial reporting in Nigeria. The result showed that board size and audit quality have a positive impact on financial reporting.

Scaltrito, (2016) assessed the level of voluntary disclosure among the companies listed on the Italian Stock Exchange by analyzing 203 annual reports of Italian listed companies for the year 2012 for any significant effect of firm characteristics on voluntary disclosure. The study employed OLS model to determine any relationship between the variables. Findings of the study

revealed that human resource information is the voluntary disclosure item reported with the highest frequency, and both firm size and auditors positively affect the total amount of voluntary information disclosed by Italian listed companies.

Unuagbon & Oziegbe (2016) examined financial reporting and Voluntary disclosure in Nigeria quoted companies, sample was drawn from fifty (50) companies listed on the Nigerian Stock Exchange (NSE).The results from Ordinary Least Square (OLS) regression analysis showed that Return on capital employed (ROCE), Profit after tax (PA)T, Earnings Per share (EPS) and Dividend per share (DPS) have a significant positive relationship with companies' performance and the extent of their voluntary disclosures.

Yaba &Oba (2016) examined firm traits and web based disclosure of top Nigerian firms. The result of the regression analysis revealed that firm size and industry type are major determinants of web disclosure. However, ownership structure and financial performance do not explain disclosure.

Albitar (2015) examined the voluntary disclosure in corporate annual reports in Jordan. Using the unweighted disclosure index consisting of 63 voluntary items, the level of voluntary disclosure in the annual reports of 124 listed companies for the period of 2010 to 2012 was investigated. The Univariate and Multivariate analysis were applied to explore the relationship between each explanatory variables and the level of voluntary disclosure and a number of sensitivity tests were taken to further analysis. The findings of the study reveal that the level of voluntary disclosure in Jordanian corporate annual reports is low , although there is a significant increase in the level of voluntary disclosure from year to year. However, Univariate analysis reveals that firm size,

leverage, firm age, profitability, liquidity, board size and audit committee size have a significant positive relationship with the level of voluntary disclosure while independent directors and ownership structure have a significant negative relationship with the level of voluntary disclosure. Meanwhile, multivariate analysis reveals same results to Univariate analysis except leverage has no impact on the level of voluntary disclosure.

In Malaysia, Haji (2015) examined the role of audit committee attributes on non-financial information releases, with a focus on intellectual capital (IC) disclosures, following significant policy changes, mandating the audit committee function in Malaysia. Regression analysis was used to determine the effect of audit committee attributes of a sample of leading Malaysian companies from 2008-2009. The result of the study revealed a strong positive influence of audit committee attributes on information disclosure. They equally observed that the findings are robust as governance and firm attributes all affect intellectual capital reporting.

Hieu, and Lan (2015) studied the factors affecting the extent of voluntary disclosure by examining the annual reports of 205 sampled industrial and manufacturing firms listed on Ho Chi Minh Stock Exchange (HSX) and Hanoi Stock Exchange (HNX) for the year 2012. Using multiple regression analysis, the results showed that foreign ownership is statistically significant and positively influences qualitative information disclosure. The results however didn't show the extent of the association.

In Canada, Maaloul & Zeghal (2015) analysed the relationship between financial statement informativeness (FSI) and intellectual capital disclosure (ICD).The Poisson regression method was used to analyse sample of 126 US companies, divided into two

groups – high-tech and low-tech companies. The results show a negative (substitutive) relationship between FSI and ICD, especially in high-tech companies. This indicates that companies with low FSI disclose more information about their IC in annual reports. The study confirms the role of voluntary ICD as a solution towards mitigating the problem of the distortion of financial information due to the lack of accounting recognition of IC as an asset in the financial statements.

Ndukwe & Onwuchekwa (2015) analyzed the determinants of environmental disclosure in Nigeria. Using the binary logistic regression the data collected from annual report of oil and gas companies in Nigeria for the period of 2008-2013. The result of the analysis reveal significant relationship between firm size, profit, leverage and audit firm type with environmental disclosure.

Samaha, Khilif & Hussaney (2015) ***e***xamined the relationship between board size, audit committee characteristics and voluntary disclosure. The study applied meta-analysis to a sample of 64 empirical studies to identify potential moderators. The focus of the study was to examine whether the results are affected by differences in the construction of disclosure index, the type of voluntary disclosure, the method of disclosure, the definitions of variables relating to corporate governance, the level of investor protection, and country geographic location. Findings of the study reveal that, board size, board composition and audit committee have a significant positive effect on voluntary disclosure. Additionally, geographic location moderates the association between board size, board composition, CEO duality and voluntary disclosure.

Akbaş (2014) The study further applied content analysis to examine the relationship between company characteristics and the extent of the environmental disclosures of 62 listed Turkish non-financial firms on the BIST-100 index at the end of 2011 Results

of the regression analysis revealed that leverage is not statistically significant with the extent of qualitative information disclosure, while company size has a significant relationship with voluntary disclosure.

Al-Hamadeen and Suwaidan (2014) investigated the Intellectual Capital (IC) voluntary disclosures from annual reports of the Jordanian industrial public listed companies. The multivariate cross-sectional regression analysis revealed that ownership concentration has the highest explanatory power about intellectual capital disclosure. The study equally asserts that intellectual capital is extensively disclosed by industries companies in Jordan.

Abdolreza and Mohd (2014) investigated the effects of firm attributes on voluntary disclosure by businesses in Tehran, a sample size of 65 firms listed on the Tehran Stock Exchange covering time period of 2005 to 2012 was employed for the study. The ordinary least square result indicate that firm size, business complexity, earnings volatility and firm value have a significant and positive impact on voluntary disclosure.

Barac, Granic and Vuko (2014) carried out a study to investigate the level and extent of non financial information disclosure practice in Croatia. A total of 130 medium and large companies constituted the sample and multiple regression was used in the analysis. The study found that firm size significantly and positively affect the level and extent of qualitative information disclosure in the annual corporate report of Croatian firms.

Isa (2014) assessed sustainable reporting among food and beverage firms in Nigeria. A sample of six firms was randomly drawn from the firms' listed on the Nigerian Stock Exchange, The data were generated from their annual reports and accounts of the

sampled firms for cross sectional analysis. Content analysis was used measure sustainability reporting of the firms while regression analysis was used to determine the predictors of the disclosures. The findings of the study show that firms exhibited some level of sustainability reporting though not significant because it only comprised of approximately two percent of the annual reports total disclosures. The statistics shows that environmental activities represent 20.40% of the total disclosures follow by product 19.75% and the least, human rights disclosures representing 12.84%. It is also discovered that the disclosures are determined by the size of the firms and it tend to varied inversely with firms' size. Large firms tend to disclose small amount of sustainable information relative smaller ones.

Ghasempour & Yusuf (2014) studied the effect of fundamental determinants on voluntary disclosure of financial and non financial information in Tehran stock exchange. The ordinary least square analysis result revealed that firm size, business complexity, earnings volatility and firm value have a significant and positive impact on voluntary disclosure while financial leverage has a significant and negative impact on voluntary disclosure.

Jouirou and Chenguel (2014) examined the determinants of voluntary disclosure of firms listed in the Tunisian Stock Exchange. This study used a disclosure index to measure voluntary disclosure variable. Annual reports of listed Tunisian firms relative to the year 2007 were used as sample. The empirical results showed that the size of the company (as measured by the number of employees) have significant influence on qualitative information disclosure which are voluntary in nature.

Mohamad, Salleh, Ismail and Chek (2014) studied the determinants of the level of quality of non financial information in Malaysia. The multiple linear regression analysis result revealed that corporate governance disclosure has the highest influence on

firms' profitability. The study provides useful insights to authorities on the level of quality non financial information adequate for stakeholders.

Modarres, Alimohamadpour, and Rahimi, (2014) carried out a longitudinal study of listed firms on Tehran Stock Exchange (TSE) from 2005 to 2012. The finding of this study shows that firm characteristics like firm size, has positive and significant relationship with qualitative information disclosure.

In the United Kingdom, Nobes & Stadler (2014) analyzed the role of qualitative characteristics of financial information in management accounting decisions. The result of the multiple regression analysis conducted revealed that qualitative characteristics are more often linked to firm size.

Onyerogba (2014) investigated risk disclosure in the published financial statement of listed companies in Nigeria and the performance of these firms. Descriptive statistics was used to perform data analysis for 258 companies listed on Nigeria stock exchange. The result demonstrated that operational risk, strategic risk and financial risk significantly explain the performance of the studied firms.

Oluwagbemiga (2014) studied the effects of voluntary disclosure on investors' decision and performance of listed firms in Nigeria. Questionnaire was administered to 280 respondents comprising preparers, external auditors and users of accounting information. The study discovered that voluntary disclosure was statistically significant in explaining investor's decision and performance of listed companies in Nigeria.

Andrikopoulos and Kriklani (2013) studied practices of environmental disclosure on the websites of companies listed on the Copenhagen Stock Exchange. The study revealed that leverage can affect the volume of environmental disclosure in corporate reports, there is also evidence that Firm size, the market-to-book ratio, and profitability are significantly associated with environmental disclosure.

In Turkey, Tkbas (2014) examined Firm characteristics and environmental disclosure of listed companies on Borsa Isantabul. The results show that company size and industry membership are positively related to environmental disclosure while profitability showed a negative relationship with environmental disclosure.

Adamu (2013) assessed the effect of company leverage on corporate risk disclosure in Nigeria. The population of the study comprised of four sectors quoted in the Nigerian Stock Exchange. These sectors consist of 24 companies in which stratified sampling technique was used in the selection of 12 companies for the study. The data for the study was 2010 annual reports of the sample companies. The result of the regression analysis shows that corporate risk disclosure is not significantly related to company leverage. It is concluded that company size is not influencing corporate risk disclosure in Nigeria.

Ismail and Rahman, (2013) concluded that the overall score for Risk management disclosure among public listed companies in Malaysia is 53%, demonstrating that there are rooms for improvement on the level of risk disclosure few years ago.

In Bahrain, Juhamani (2013) studied ownership structure and corporate voluntary disclosure for companies listed in Bahrain stock exchange, using the multiple regression analysis, the results revealed that there is a relationship between block holder ownership

and voluntary disclosure. However, managerial ownership and government ownership are not associated with voluntary disclosure. There study further reveals that firm size and leverage are significantly associated with level of disclosure.

Musa(2013) analyzed risk disclosure in annual reports of listed companies in Nigeria. The study critically examined the annual reports if 12 companies in 2010, using regression analysis, the study revealed that that corporate risk disclosure is not significantly related to companies leverage, Furthermore, the result also showed that company size does not influence corporate risk disclosure in Nigeria.

Omoye (2013) examined factors that can influence companies in Nigeria to disclose intangible assets in their annual reports by using 65 randomly selected firms listed on the Nigerian Stock Exchange over a period of five (5) years (2006-2010). The study made use of descriptive statistics, correlation, and binary logistic regressions and revealed that the probability for many Nigerian corporate organisations to disclose intangible assets are weakly associated with firms' in services oriented industry.

Rashidah, Apedzan, Lateefat and Omneya (2013) conducted a study on risk management disclosure practices of Islamic banks in the Middle East and North African (MENA) region owing to the facts that the region is currently associated to 50 percent of the worldwide share of Islamic banks. OLS regression as method of analysis was used and the research findings shows above average compliance with risk disclosure categories except displaced commercial risk (DCR), which shows a poor result and that size and having foreign subsidiaries can actually assist banks to report on risk factors which are qualitative information disclosure in nature.

Lan, Wang and Zhang (2013) study of 1,066 sampled Chinese companies listed on the Shanghai and Shenzhen Stock Exchanges found that qualitative information disclosure is positively related to leverage.

Alves, Rodrigues and Canadas (2012), examined the determinants of voluntary disclosure, and its different categories, in the annual reports of Portuguese and Spanish listed companies. Firm size, growth opportunities, organizational performance, board compensation all showed a positive relationship with voluntary information disclosure. The negative association of ownership structure and voluntary disclosure in the study may be due to the voluntary disclosure index used in the study which limited its scoring to strategy, marketing and human capital disclosure.

Binh (2012) analyzed the voluntary disclosure information in the annual reports of 199 non-financial listed companies in Vietnam. Analysis of the questionnaire administered to respondent revealed that a low level of disclosure about the corporations human resource disclosure exists in Vietnam, this discovery is also similar to the disclosure level of human resource information in developed countries like Japan and Ireland.

Chakroun &Matoussi (2012) examined the determinants of voluntary disclosure in the annual reports of Tunisian firms. The results from the multiple regression analysis conducted reveal that voluntary disclosure are affected by both external and internal mechanism of governance.

Elmans (2012) carried out an investigation to determine the relationship between ownership structure and the extent of voluntary disclosures and found that there is a negative association between block holder ownership and voluntary disclosures.

Haji (2012) examined the trends of intellectual capital disclosure in the Nigerian banking sector, Content analysis was used to extract data from the annual reports of the sampled Banks. The result demonstrated that intellectual capital disclosure of Nigerian banks increased moderately over the four year period of study.

Izedonmi (2012) studied the association between selected corporate governance attributes and timeliness of financial reporting in Nigeria. Ordinary least square regression analysis employed for the study revealed that Audit delay was statistically significant with timeliness of financial of financial reporting in Nigeria.

Miihkinn (2012) examined the impact of a detailed national disclosure standard on the quality of firms' overall risk reviews under IFRS. The study used data from a sample of listed Finnish firms around the introduction of the standard and find that national regulatory bodies have been able to raise the quality of risk disclosure on several dimensions even under IFRS. There was an increases in the quantity of risk disclosure with more extensive and more comprehensive information. Also, the study revealed that the impact of standard on risk disclosure is more pounced among less profitable firms, the study equally revealed that larger firms disclose more risk information than smaller firms. The findings have implications for standard-setters evaluating different strategies with the aim to increase the quality of the narratives in annual report.

Ragini (2012) examined disclosure practices of intangible assets of the top one hundred India, United states and Japanese companies for a period of five years. The multiple regression analysis result reveal that the countries studied show a significant improvement in their overall disclosure scores over the five year period.

Vu (2012) study on three common ownership identities of 252 Vietnamese non-financial listed companies across the annual reporting year 2009 and revealed that profitability has effect on qualitative information disclosure.

Adelopo (2011) investigated voluntary disclosure practices amongst listed firms in Nigeria. Results from univariate and multivariate analyses of 52 listed companies a found significant positive relationship between voluntary disclosure and firm size. The study also found significant negative relationship between percentage of block share ownership and percentage of managerial share with firm disclosures.

Arshad &Ismail (2011) examined the effect of management perception on the disclosure of risk related information in the annual reports of companies in Malaysia. The multiple regression analysis result reveal that enhanced understanding and perception on the overall risk concepts are important drivers that can facilitate managers in disclosing more comprehensive and relevant risk related information.

Idebimpe & Okugbo (2011) studied the effect of corporate governance, company attributes and voluntary disclosure of listed companies in Nigeria. A combination of the univariate and multi variate analysis result show that board size has a significant positive relationship with the extent of voluntary disclosure.

In China,Qu (2011) investigated the voluntary disclosure of strategic, financial and non-financial information in 297 listed companies annual reports for 1995-2006. Ordinary least square regression analysis reveal that voluntary disclosure made by listed companies in China increased indicating that companies have positively reacted to the changing corporate reporting environment in China.

Rouf (2011) evaluated corporate voluntary disclosure of management's responsibilities of 132 Bangladeshi listed companies during 2005-2008 and established that voluntary disclosure level has a negative relationship with the percentage of equity owned by the insiders of the firms. Due to the large ownership stake, institutional investors have strong incentives to monitor corporate disclosure practices Thus, managers may voluntarily disclose information to meet the expectations of large shareholders. In the study, institutional shareholders also revealed a significant relationship with ownership structure and voluntary information disclosure. This revelation may be to possible due to increasing shareholder activism and the monitoring potential of institutional shareholders.

Rouf and Harun (2011) study of 94 sampled listed firms in Bangladeshi found that the extent of corporate qualitative information disclosures is negatively associated with a higher management of ownership structure of the firm. The composition of a greater percentage of the management in the higher executive cadre could have accounted for a reduced disclosure level as a result of conflicting interest or power tussle which may ultimately delay decision making about adequate disclosure information.

In Thailand, Sukthomya (2011) examined the voluntary disclosure of 100 companies listed in the SET100 Index of the stock exchange in Thailand. The result from the multiple regression analysis reveals that company size is associated with the increase in the level of voluntary disclosure. Voluntary disclosure in the Middle East is greatly evolving to reflect the changing dynamics in global business.

Whiting & Woodcock (2011) examined the presence of voluntary intellectual capital disclosure (ICD) in Australian company reports and the influence of company characteristics (industry type, ownership concentration, listing age, leverage and auditor type) on ICD. Content analysis was used to extract data from a sample of 70 Australian publicly listed firms. The findings of the study reveal that ICD was low with external capital being the most frequently disclosed category. Correlation and regression analysis demonstrated that companies that operate in high technology-based or knowledge-intensive industries, and companies with large Big Four auditing firms show more extensive ICD than those in other industries and without Big Four auditors. A company's ownership concentration, leverage level and listing age did not influence the occurrence of ICD.

Abeysekera (2010) examined the influence of board size on intellectual capital disclosure by Kenyan listed firms. Analyzing the disclosure pattern of top 26 of the 52 firms ranked by the Nairobi Stock Exchange for market capitalization in 2002 and in 2003. This study identified intellectual capital disclosure by three separate categories: internal capital, external capital, and human capital. Results of the logistic regression revealed finds that firms disclosing more tactical internal capital and more strategic human capital have larger boards.

Yi (2010) studied the intellectual capital disclosure in Chinese companies. Content analysis used to extract data from the annual reports of the companies. The findings show that Intellectual capital is not significantly associated with firm size.

Abeysekera (2010) studied corporate governance determinants with the extent of the voluntary disclosure provided by listed firms listed on Egyptian Stock Exchange (EGX). Using a weighted relative disclosure index for measuring voluntary disclosure, the results indicate that there is a positive significant correlation between firm size, firm profitability, firm leverage, independent directors on board, and auditor type, and the overall corporate governance voluntary disclosure extent. This result implies that these variables are the main voluntary disclosure drivers in Egypt. However, a negative significant correlation was found between block-holder ownership and voluntary disclosure, while no significant correlation was found between board size, and duality in position, and the overall corporate governance voluntary disclosure extent. The empirical proof from this study promotes the perception corporate disclosure environment in Egypt as one of the emerging markets in the Middle East.

In China, chau and Gary (2010) investigated voluntary disclosure made by listed firms in the Chinese stock market. The findings of the study show that voluntary disclosure increased over the testing period, meaning that firms have positively reacted to the changed corporate disclosure environment in China. Firms' ownership structure, corporate governance-related factors and economic attributes are used to represent either stakeholder's political or financial stake in listed firms.

Ani (2009) examined the intellectual capital reporting and corporate characteristics of public listed companies in Malaysia. The result reveal intellectual capital disclosure by sample firms is not extensive.

Hossain and Hammami (2009) study of 25 sampled listed companies of Doha Securities Market in Qatar indicated that profitability is insignificant in explaining environmental disclosure or environmental accounting information may vary substantially across different companies.

Rajab and Handley-Schachler (2009) study was on risk disclosure practice and relates the extent of risk disclosure to firm-specific characteristics. Using content analysis of 156 annual reports prepared by 52 UK listed companies in three different periods (1998, 2001 and 2004). The study found industry type to be significantly and positively correlated with the level of risk information disclosed by the sampled companies.

Reverte (2009) finds that environmental sensitivity of the industry of operation influences corporate social disclosure practices. . The industry type can affect disclosure compliance due to differing nature of activities.

Brammer and Pavelin (2008) studied the influence of leverage on environmental disclosure. The finding reveal that firms with lower leverage could have adequate funds for financing environmental disclosures and to have the opportunity to focus on organisational activities that indirectly affect the financial success of the firm.

Brammer and Pavelin (2008) examined patterns in the quality of voluntary environmental disclosures made by a sample of around 450 large UK companies drawn from a diverse range of industrial sectors. The study employed some variables of disclosure quality, including the disclosure of group-wide environmental policies, environmental impact targets and an environmental audit to examine how the decisions firms face regarding each facet of quality are determined by firm and industry characteristics, and

find the quality of disclosure to be determined by a firm's size and the nature of its business activities. The results indicate that high quality disclosure is associated with larger firms and those in sectors most closely related to environmental concerns. In contrast to several recent contributions, the result disclose that media exposure of companies plays no role in stimulating voluntary disclosure.

Sujan & Abeysekera (2008) Using content analysis of annual reports of the top 20 firms (by market capitalisation) listed on the Australian stock exchange in 2004, they investigated the state of intellectual capital reporting practices in Australia. The result of the study confirms that reporting of intellectual capital is yet to be done within a consistent framework. Although most of the reporting was done through qualitative, rather than quantitative statements.

Wang (2008) studied the determinants of voluntary disclosure in the annual reports of Chinese listed firms that issue both domestic and foreign shares. The ordinary least square results reveal that the level of voluntary disclosure is positively related to the proportion of state ownership, foreign ownership and firm performance measured by return on equity and reputation of the engaged auditor.

Barako (2007) examined the influence of ownership structure on qualitative information disclosure of listed companies in Kenya from 1992 to 2001.The result of the Ordinary Least Square (OLS) with Panel-Corrected Standard Errors (PCSEs) showed that disclosures of all types of qualitative information disclosure are influenced by ownership structure.

Wang et al. (2012) results indicated that proportion of state ownership and foreign ownership were positively associated with level of qualitative information disclosure.

Haladu & Salim (2007) investigated sustainability reporting by firms in Nigeria with special focus of their economic social and environmental disclosures, using the multiple regression analysis, the result showed that environmental reporting is more significant in studied firms than social reporting.

Ho & Taylor, (2007) investigated triple bottom-line (TBL) disclosures of 50 of the largest US and Japanese companies. Content analysis were developed for each of the TBL disclosure areas: economic, social, and environmental. The regression analysis result revealed that total TBL disclosure (combining economic, social, and environmental categories), the extent of reporting is higher for firms with larger size, lower profitability, lower liquidity, and for firms with membership in the manufacturing industry. There is also evidence that the extent of overall TBL reporting is higher for Japanese firms, with environmental disclosure being the key driver. This result could be attributed to the differences in national cultures, the regulatory environment, and other institutional factors between the United States and Japan.

Rabin & Mohammed (2007) analyzed the ownership and voluntary disclosure of listed financial service companies in Nigeria. Pearson correlation regression analysis was used to empirically test the hypothesis and the result show that managerial ownership has an insignificant and positive effect on voluntary disclosure while firm size showed a significant positive relationship with voluntary disclosure.

In China, Rafaurg (2007) studied the effect of ownership structure and board composition on voluntary disclosure of listed companies in China. The ordinary least square regression result reveal that high block holder ownership and foreign listing is

associated with increase in voluntary disclosure. Equally, higher firm size showed greater voluntary disclosure for the companies studied.

Uwuigbe (2007) investigate the relationship between ownership structure and financial quality of listed firms in Nigeria. The general least square result reveal that a significant relationship exist between management ownership and quality financial disclosure.

Bontis (2003) assessed the intellectual capital disclosure in Canadian corporations Content analysis was conducted on the annual reports of 10,000 Canadian corporations by searching a list of intellectual capital related terms .The results showed that despite the changing believe on intellectual capital disclosure, some Canadian firms report a significantly reduced disclosure in the annual reports examined while other firms completely omitted Intellectual capital disclosure from their annual reports.

Meek, Roberts and Gray (1995) reveal that the type of industry a firm belongs is the most important factor in explaining the level of the voluntary qualitative information disclosures. While, Wallace, Naser and Mora (1994) suggest that firms in a specific industry might face particular circumstances that may influence their disclosure practice. For example, there are significant differences in the operations and reporting practices of a firm in the manufacturing industry and another in the financial services industry.

In addition, Owusu-Ansah (1998) suggests that firms that operate in a highly regulated industry might be subjected to serious rigorous controls that can significantly impact on their corporate disclosure practices.

Other researches who have tried to establish an associations between industry type and level of disclosure include (Alsaeed 2006; Barako, Hancock & Izan, 2006; Muhamad, Shahimi.

In contrast, Wallace, Naser and Mora (1994), Owusu-Ansah (1998) and Eng and Mak (2003) found no significant relationship between industry type and extent of corporate qualitative information disclosure. Following the outcomes of the related empirical evidences, it is expected that industry type has influence in determination of qualitative information disclosure.

Also, Rahman, Pererra & Ganesh (2002) observed that the nature of activities within an industry could be a reason for the diversity in both the amount and type of disclosure and measurement practices among firms.

2.7 Summary of Empirical Studies

S/N	Author(s)	Country	Title/Objective	Methodology	Major Findings
1.	Guidry & Pattern (2019)		Voluntary disclosure theory and financial control variables: An assessment of recent environmental disclosure research	Conceptual review	Firm size is associated with voluntary disclosure level. Also, a negative association exist between ROA and voluntary disclosure
2	Lundberg & Ahman (2018)	Sweden	The effect of firm characteristics on disclosures.	Secondary data of 91 annual reports over a 7-year period (2007 – 2013). OLS regression.	Firm visibility and leverage have positive relationships with disclosure quality, while a significant negative correlation exist between high

					ownership concentration and level of discloses.
3	Fanke (2018)	Germany	Investigates the relation between a firm's qualitative disclosure and its loan terms.	Secondary data of 10-K filling 6,419 facilities issued by 2,085 firms (1997 – 2012). OLS.	There is significant association between a firm's information disclosure and its loan terms.
4.	Oti & Mbu-Ogar (2018)	Nigeria	Analysis of environmental and social disclosure and financial performance of	Secondary data of five (5) oil & gas coys. For 2012-2016). Used GRI index and OLS	They found that disclosure on employee health and safety and community development do not significantly affect financial

Summary of Empirical Studies Continues

Author(s)	Country	Title/objective	Methodology	Major Findings
		selected quoted oil and gas companies	regression.	performance while disclosure on waste management had a positive and significant effect on firm's financial performance.
5.	Wachira (2018)	Kenya	Determinants of risk disclosures in Kenyan listed companies	Secondary data of all non-financial firms listed on Kenyans Stock Exchange (2010 and 2016).	Risk disclosure is positively related to gearing level, company size, profitability, and the industry type, while it was not found to be related to the liquidity level, ownership and board composition.
6.	Sani (2018)	Nigeria	Mandatory social and	Secondary data of nine	There was 53% increase in volume of

			environmental disclosure: A performance evaluation of listed Nigerian companies pre- and post-mandatory disclosure requirements.	(9) listed oil and gas companies NSE (2005 to 2016). Used Panel Corrected Standard Errors (PCSE's).	social disclosure and 235% increase in volume of environmental disclosure 6years post-code over disclosure 6years pre-code. Panel regression also showed that corporate size has positive and significant relationship with disclosure. Profitability (-), liquidity (+) and leverage (+) were insignificant.
Summary of Empirical Studies Continues					
	Author(s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
7.	Sierra-Garcia, Garcia-Benau & Bollas-Araya (2018)	Spain	Empirical Analysis of Non-Financial Reporting by Spanish Companies	Secondary data of 35 listed companies for year 2017 alone. Correlation & OLS	Result showed that the level of regulatory compliance produced is associated with the business sector in which the company operates.
8.	Nyahas, Ntayi, Kamukama, & Munene (2018)	Nigeria	Investigated stakeholders influence on voluntary disclosure.	Primary data. Surveyed 92 firms via questionnaire administration. Used Structural Model	Found that stakeholder power and urgency are positively and significantly associated with voluntary disclosure, while legitimacy is not associated with voluntary disclosure. Lastly, both

					firm size and industrial category are insignificant in explaining voluntary disclosure.
9	Al Anosh&Mansor (2018)	Malaysia	Sustainability and corporate reporting: A review of Environmental and Social Accounting Disclosure	A review	Environmental and social reporting are explained by firm characteristics proxied by board size ,firm size and industry type.

Summary of Empirical Studies Continued

	Author(s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
10	Mgbame, A (2018)	Nigeria	Discretionary environment disclosure of corporation in Nigeria	The study employed the binary probit regression model for data analysis and content analysis to identify the extent of environmental disclosure in annual report of selected Nigerian company.	Firm size, firm performance, available of cash and age of form are significant determinants of the extent of environmental disclosure.
11	Adefemi, Hassan, & Fletcher,	Nigeria	Corporate Governance Disclosure in Nigerian	Panel regression techniques	Asset turnover, board composition and number of employees significantly related to corporate

	(2018)		Listed Companies		governance disclosure.
	Oraka, A., Egbunike, F., &Gunardi, A. (2018)	Nigeria	The influence of corporate Board attributes on voluntary social disclosure of selected quoted manufacturing firms in Nigeria.	Ordinary Least Square	There is a significant positive influence of board size, a significant negative influence of board ownership. A significant positive influence of board structure, a significant positive influence of proportion of women on voluntary corporate social disclosure.

Summary of Empirical Studies Continues

	Author(s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
12	Odomelam & Okafor (2018)	Nigeria	The influence of corporate Governance on Environmental disclosure of listed non-financial firms in Nigeria	Content analysis, OLS regression technique	Board independence, board meeting and environmental committee were statistically significant while audit committee independence and board size were insignificant
13	Alsmady (2018)	Jordan	Ownership structure and its edogeneity effect on non financial reporting	Correlation analysis	Ownership concentration structure has no effect on voluntary disclosure whereas, individual foreign ownership, company gage, log of total sales have a positive effect on disclosure

14	Okoye &, Idowu, (2018)	Nigeria	Company age and voluntary social disclosure in Nigeria. A study of selected listed companies in	Regression analysis	Company age does not affect voluntary corporate social disclosure significantly
15	Omoye &Oshilim (2018)	Nigeria significant. Leverage was negatively related while industry type was	Antecedents of environmental disclosure in Nigeria	Panel least square regrem	Firm size and profitability have significant positive relationship with environmental dis leverage and industry type were statistical

Summary of Empirical Studies continues

	Author(s)	**country**	**Title/objective**	**Methodology**	**Major Findings**
		positively related			
16	Nyaha, Ntayia Munene (2018)	Niger	Stakeholders influence on voluntary disclosure practices by listed companies in Nigeria: an investigation of manager's perception	Partial least square	Firm size, industry category are not significant predictors of voluntary disclosure
17	Mgammal (2017)	Saudi Arabia	The effect of ownership structure on voluntary disclosure	Multiple regression	The level of voluntary disclosure was significantly worked to ownership structure

18	Moduga, K. (2017)	Nigeria	Corporate Attribute and Corporate disclosure level of listed company in Nigeria	Descriptive statistics and OLS regression	Firm size and mandatory disclosure are positively associated voluntary disclosures remain relatively low.
19	Dugu & Eboigbe 2017	Nigeria	Corporate attributes and corporate disclosure level of listed companies in Nigeria. A post-IFRS adoption study	Descriptive statistics and OLS	Firm size has a significant positive association with mandatory disclosure form size and leverage show a significant positive relationship with

Summary of Empirical Studies Continues

	Author(s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
20	Diq (2017)	Nigeria	Ownership structure and voluntary disclosure of listed financial service companies in Nigeria	Descriptive statistics Pearson correlation regression analysis	Managerial ownership shows an insignificant and positive effect on voluntary disclosure form size and age showed a positive relationship with voluntary disclosure. The study recommended directors to have more shares in the form they manage
21	Kakanda, Salim & Chanren (2017)	Nigeria	Corporate governance reform and risk management disclosure evidence from Nigeria	Content analysis	There is significant disclosure of risk management practices in sampled firms

22	Kakanda, Salim & Chandren (2017)	Nigeria	Do board characteristics and risk management disclosure have any effect on form performance	Regression analysis	Board size, board composition and risk management disclosure have a positive relationship

Summary of Empirical Studies Continues

	Author(s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
23	(2017)	Nigeria	Firm attributes and risk disclosure of listed depost money banks in Nigeria	Descriptive, OLS analysis	Company structure (size, age) and board structure)board size) have significant impact on risk disclosure. ROA, has positive and insignificant impact while ler has positive and insignificant impact on risk disclosure
24	Ahmadi, A. (2017)	France	Relationship between financial attributes, environmental performance and environmental disc of French firm	Content analysis	Environmental disclosure is positively associated to environmental performance. Firm size, profitability are positively associated with environment disclosure

25	Egbunike, P. (2017)	Nigeria	Firms specific attributes and voluntary environmental disclosure in Nigeria: Evidence form listed manufacturing companies	Descriptive and inferential statistics regression analysis	There is a positive relationship between environmental disclosure firm size, leverage earnings per share and governance
26	Sadiq, A., & Mohammed., M. (2017)	Nigeria	Ownership structure and voluntary disclosure of listed financial services companies	Descriptive Statistics Pearson correlation and regression analysis	
Summary of Empirical Studies Continues					
27	**Author(s)**	**Country**	**Title/objective**	**Methodology**	**Major Findings**
	Elfeky (2017)	Egypt	The extent of voluntary disclosure and its determinants in emerging markets	Secondary data of top 50 most active-traded companies listed on the Egyptian Stock Exchange (2012-2016). OLS	There is a positive significant correlation between firm size, firm profitability, firm leverage, independent directors on board, and auditor type, and the overall corporate governance voluntary disclosure extent.
28	Modugu & Eboigbe (2017)	Nigeria	Corporate Attributes and Corporate Disclosure Level of Listed	Secondary data of 60 companies (2012 – 2014). Descriptive	There is a significant positive association between firm size and mandatory disclosure. A significant

			Companies: A Post-IFRS Adoption Study	statistics and the Ordinary Least Squares (OLS) regression.	negative relationship between leverage and mandatory disclosure. Both leverage and firm size showed a significant positive relationship with voluntary disclosure. The combined effect of leverage and firm size has a significant positive relationship with total disclosure.
Summary of Empirical studies continues					A positive significant correlation between firm size, profitability leverage and corporate governance
29	**Author (s)** Elfeny (2017)	**Country** Egypt	**Tile/Objective** extent of voluntary disclosure and its determinant in emerging market: evidence from Egypt	**Methodology** Weighted disclosure	**Major Findings** voluntary disclosure. However blockholder ownership is negatively significant while no correlation significance is found between board size and corporate governance disclosure
30	Bose, Saha, Khan, & Islam	Bangladeshi	The effect of non-financial disclosure and	Secondary data of 30Bangladeshi banks	Firms' engagement in non-financial disclosure activities increases their

	(2017)		market-based firm performance.	(2009 – 2014). Used OLS regression method.	market share, reduces the information asymmetry between managers and capital market participants.
31	Rabiu & Ibrahim (2017)	Nigeria	Impact of ownership structure on voluntary disclosure of listed financial service companies.	Secondary data of 28 financial companies (2006-2015). Used descriptive statistics, Pearson correlation and regression analysis using STATA version14.	Managerial ownership shows an insignificant and positive effect on voluntary disclosure, while the control variables of firm size and age showed significant positive relationship with voluntary disclosure.

Summary of Empirical studies Continues

	Author (s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
32	Bani Khalid, Koohy& Hassan (2017)	Jordan	The impacts of corporate characteristics on social and Environmental Disclosure (CSED): The case of Jordan	Panel data regression was used to model the relationship between disclosure amount and key drives of CSED via random effect estimation.	Firm size type of audit firm and financial performance are significantly associated with CDED.
33	Nassreddine (2016)	Tunisia	Examined the determinants of information disclosure	Qualitative survey approach focusing on 10 firms via questionnaires.	Found evidence that firm's characteristics are a significant determinant of financial and

			by Tunisian companies.		qualitative information disclosure.
34	Odhiambo, O (2016)	Nigeria	Differential Reporting of Social and Environmental Disclosure between local and foreign oil companies in Nigeria	Secondary data was used by analyzing the annual reports through content analysis. The Kruskal-Wallis and Mann-Whitney-Wilco test were used to better understand SED differences	Local companies were found to provide more content and wider variety to SED than foreign companies
35	Shiri (2016)	Iran	Impact of ownership structure and disclosure quality on information asymmetry in Iran	Correlation analysis	A positive impact of ownership structure and negative impact of disclosure quantity. Information asymmetry is less inform that published more reliable information as indicated in forms with more concentrated ownership structure, high institutional ownership and lower disclosure quality

Summary of Empirical Studies continues

	Author(s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
36	Onuorah, Anastasia and Imene (2016)	Nigeria	Corporate governance and financial reporting quality in selected Nigeria	Econometrics	Board size, audit quality has positive impact on financial reporting
37	Salehi (2016)	China	Impact of ownership structure and disclosure quality on the information asymmetry phenomenon among	OLS	

			listed companies on the Tehran stock exchange		
38	Unuagboi & Ozeigbe (2016)	Nigeria	Financial reporting and voluntary disclosure in Nigeria quoted companies	OLS	A significant and positive relationship exist between companies performance and to voluntary disclosure
39	Avwokeni (2016)	Nigeria	Does FRS detract from social disclosure in corporate annual report	Regression	Social disclosures are optional, therefore auditors are under no obligation to enforce compliance
40	Yaba, & Oba. (2016)	Nigeria	Firm traits and web based disclosure of top Nigerian firms	Regression analysis	Firm size and industry type are determinant of web disclosure ownership structure and financial performance do not explain disclosure
Summary of Empirical Studies Continues					
	Author (s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
41	Awa & Ozor, (2016)	Nigeria	Board composition, form size, audit type and voluntary disclosure of forward looking information in the banking sector	Multiple regression	Firm size significantly affects the level of voluntary information disclosure
42	Eriabie & Odia (2016)	Nigeria	Influence corporate governance attributes on	Sampled 174 listed companies in the	The usage of Big 4 audit firms and the presence of CSR committee have

			corporate social and environmental disclosure quality in Nigeria.	Nigerian Stock Exchange between 2007 and 2008. Used content analysis of the annual reports.	positive and significant impact on CSED quality. Board independence, audit committee independence, CEO duality and the ownership structure of directors' shareholdings, institutional ownership and substantial shareholdings (shareholders power) have no significant impact on CSED quality.

Summary of Empirical Studies Continues

	Author(s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
43	Ofoegbu & Megbuluba(2016)	Nigeria	Corporate Environmental Accounting Information Disclosure in Nigeria Manufacturing Firms	Panel data for seven year period (2008-2014) of 10 selected manufacture firms. The pooled panel data least square regression model was used to extirpate the influence of the independent variable on	The results showed that firm financial performance has a significant impact on the dependent variable

				the dependent variable	
44	Ikpor & Agha (2016)	Nigeria	The extent of voluntary information disclosure in Nigeria.	Multiple regression analysis	Results showed that size of the company has a positive but decreasing impact on voluntary information disclosure.
45	Okoye, Ebelechukwu & Agwedo (2016)	Nigeria	Effect of non-disclosure of environment. Environmental costs on the performance	Content analysis	The result showed that non-environmental cost disclosure have significant effect on the firms profitability
46	Scaltrito (2016)	Italy	Voluntary disclosure in Italy: Firm specific determinant an empirical analysis of Italian companies	OLS	Human resource information is the highest voluntary information disclosed. Also, firm size affect voluntary disclosure by Italian companies.
Summary of Empirical Studies Continues					
	Author (s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
47	Hieu & Lan (2015)	Vietna	The factors affecting the extent of voluntary disclosure	Multiple regression analysis	The study finds that two factors (namely, the company's size and foreign ownership) have a statistically significant and positive influence on qualitative information disclosure.
48	Samaha, Kkhilif		The impact of board and	Analysis	Board size, board composition have a

	& Hussainey (2015)		audit committee characteristics on voluntary disclosure: A meta-analysis		significant positive effect on voluntary disclosure
49	Musa, S., Teru, P. &Burkar, M.(2015).	Nigeria	Environmental Accounting Disclosure Practice of Nigerian Quoted Firms: A case	Content analysis and ANOVA	Accounting standards do not significantly influence environmental accounting disclosure
50	Ndukwe D & Onwucheka J.C (2015)	Nigeria	Determinants of environmental disclosure in Nigeria: A case study of oil and gas companies in Nigeria over the period of five years 2008 to 2013	Binary regression technique	It was found that there is a significant relationship between firms size profit, leverage and audit firm type on environmental disclosure
51	**Author (s)** Haji, (2015)	**Country** Malaysia	**Title/objective** The role of audit committee attributes in intellectual capital disclosures. Evidence from Malaysia	**Methodology** Regression analysis	**Major Findings** A strong positive role of audit committee function on intellectual capital disclosure
52	Albitar, K., (2015)	Jordan	Firm characteristics, governance attributes and corporate voluntary	Content analysis univariate multivariate	Firm size, leverage, form age, board size, profitability have a significant positive relationship with the level of

			disclosure	analysis	voluntary disclosure while ownership with structure has a significant negative relationship with voluntary disclosure. Furthermore, leverage has no relationship with voluntary disclosure
53	Oluwagbemiga (2014)	Nigeria	Examined the effects of voluntary disclosure on investor decision and performance of listed companies.	Primary data via questionnaire administered on 280 respondents comprising of preparers (accountants), external auditors and users of accounting information.	The study revealed that voluntary disclosure was statistically significant in explaining investor's decision and performance of listed companies in Nigeria.
Summary of empirical studies continues					
	Author (s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
54	Modarres, Alimohaadpour & Rahimi (2014)	Tehran	The factors affecting voluntary disclosures in the annual reports of listed companies in Tehran stock exchange (TSE) from 2005 to 2012	Multiple regression analysis	The finding of this study shows that firm characteristics; firm size, age and growth opportunity have positive and significant relationship with qualitative information disclosure while leverage and profitability has insignificant relationship with

					voluntary disclosure.
55	Onyerogba (2014)	Nigeria	Risk Disclosure to the published financial statements and firm performance. Evidence from the Nigeria listed company	Descriptive statistics were used to perform data analysis of 258 companies of 258 listed companies in Nigeria.	Operational Risk, strategic risk and financial risk significantly explained firm performance.
56	Jouirou & Chenguel (2014)	Tunisia	The determinants of voluntary disclosure in Tunisian firms listed in the Tunisian stock exchange.	Multiple regression analysis	The size of the company (measured by the number of employees) has significant influence on qualitative information disclosure which are voluntary in nature.

Summary of empirical studies continues

	Author(s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
57	Akbas (2014)	Turkey	The relationship between company characteristics and the extent of the environmental disclosures of Turkish companies.	Multiple regression analysis	The finding reveals that profitability is negatively related to qualitative information disclosure as environmental disclosure.

58	Barac, Granic & Vuko (2014)	Croatia	The level and extent of voluntary disclosure practice in Croatia.	Multiple regression analysis	Results show that firm size, listing status and industrial sector significantly and positively affect the level and extent of voluntary disclosure in the annual report of Croatian companies.
59	Nobes & Stadler (2014)	United Kingdom	The role of the qualitative characteristics (QCs) of financial information in managements' accounting decisions.	Descriptive statistics and multiple regression	It was discovered that QCs are more often referred to if the change relates to measurement (i.e. to a more important accounting policy decision). We also find that references to QCs are positively associated both with firm size and with a measure of a jurisdiction's transparency.

Summary of empirical studies continues

	Author (s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
60	Tkbas (2014)	Turkey	Company characteristics and environmental disclosure: An empirical investigation on companies Borsa Istanbul	Regression analysis	Company size and industry membership are positively related to environmental disclosure while profitability is negatively related
61	Ibrahim, K (2014)	Nigeria	Firm characteristics and voluntary segments.	Content analysis	Firm size and industry type have positive association with voluntary

			Disclosure among the largest forms in Nigeria		segment reports
62	Mohamad, Salleh, Ismail & Chek (2014)	Malaysia	The determinants of the level of quality of Non-Financial Information disclosure in Malaysia.	Multiple Linear Regression	The results indicated that Corporate Governance disclosure has the highest influence on firm's profitability. This study provides useful insight to the authorities on the level of quality of Non-Financial Information and this information enables them to focus on areas that need improvement.

Summary of empirical studies contines

	Author(s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
63	Al-Hamadeen & Suwaidan (2014)	Jordan	The Intellectual Capital (IC) Voluntary disclosures from annual reports of the Jordanian industrial public listed companies.	Multiple regression analysis	The findings suggest that information about the intellectual capital has been extensively disclosed by the industrial companies in Jordan.
64	Abdolreza &	Tehran	The effects of company	OLS	Firm size, business complexity,

	Mohd (2014)		characteristics on voluntary disclosure by businesses.		earnings volatility, and firm value had a significant and positive impact on voluntary disclosure.
65	Isa, M. (2014)	Nigeria	Sustainability reporting among food and beverage firms in Nigeria	Regression analysis	Form size is not statistically associated with disclosure.
66	Alhazaimeh, Palania pan, Almsafir (2014)	Jordan	Ownership structure and corporate governance on voluntary disclosure in annual reports among listed Jordanian companies	Dynamic panel system	Board activity, foreign ownership non executive directors and block holder ownership significantly influence voluntary disclosure

Summary of empirical studies continues

	Author (s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
67	Albassam (2014)	Saudi Arabia	Corporate governance, voluntary disclosure and financial performance: an empirical analysis of Saudi listed forms using a mixed methods research design	Mixed methods research design	Board size, audit form size ownership structure have influence voluntary disclosure. Also, ROA is positively associated with corporate governance disclosure

68	Ghasempour & MdYusof (2014)	Tehran	The effect of fundamental determinants on voluntary disclosure of financial and nonfinancial information in Tehran Stock Exchange.	OLS	Firm size, business complexity, earnings volatility, and firm value had a significant and positive impact on voluntary disclosure whereas financial leverage had a significant and negative impact on voluntary disclosure.
69	Omoye (2013)	Nigeria	Factors that influence companies in Nigeria to disclose intangible assets in their annual reports to stakeholders	Descriptive statistics, correlation, and binary logistic regressions	This study concludes that stakeholders with intangible assets disclosure concerns should not pay strong attention to firm's specific characteristics as most of them might not explain the reason why companies in Nigeria disclose intangible assets.

Summary of empirical studies continues

	Author (s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
70	Adamu (2013)	Nigeria	Risk reporting a study of risk disclosure in the annual reports of listed companies in Nigeria	Regression analysis	Leverage and firm size are not significantly associated with corporate risk disclosure
71	Juhamani (2013)	Bahrain	Ownership structure and corporate voluntary disclosure	Multiple regression model	There is a relationship between block holder ownership and voluntary disclosure. Managerial and government ownership are not

					associated with voluntary disclosure. Also, firm size and leverage are significantly associated with the level of disclosure
72	Gilbert & Navallas (2013)	Spain	The association between voluntary disclosure and the corporate governance in the presence of severe agency conflicts		High ownership concentration is strongly associated with increased voluntary disclosure
73	Musa (2013)	Nigeria	Risk Report: A Study of RiskDisclosure in the Annual Reports of Listed Companies	Secondary data of the annual reports of 12 companies in 2010were extracted for the study while regression tools were used for analysis	Corporate Risk disclosure is not significantly related to companies leverage, company size did not influence corporate risk disclosure in Nigeria
	Author(s)	**Country**	**Title/objective**	**Methodology**	**Major findings**
74	Rashidah, Apedzan, Lateefat & Omneya (2013)	Middle East and North African	Risk management disclosure practices of Islamic banks in the Middle East and North African (MENA) region	OLS regression	The result showed above average compliance with risk disclosure categories except displaced commercial risk (DCR), which shows a poor result. Also, firm size and having foreign subsidiaries can actually assist banks to report on risk

					factors in their annual reports.
75	Binh (2012)	Vietnam	Voluntary disclosure information in the annual reports of 199 non financial listed companies in Vietnam	Questionnaire administration approach was used in the study	There is a low level of disclosure about the corporations' human resources disclosure in a developing country like Vietnam as it is in developed countries like Japan and Ireland.
76	Elmans (2012)	Holland	The disclosure practices of European companies by examining the relation between ownership structure and the extent of voluntary disclosures.	Multiple regression analysis	This study demonstrates that there is a negative association between blockholder ownership and voluntary disclosures. In addition, a positive association exists between government ownership and voluntary disclosures.

Summary ofempirical studies continues

	Author(s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
77	Ragini (2012)	USA	Disclosure practices of intangibles of the top one hundred Indian, US, and Japanese companies for a period of five years,	Multiple regression analysis	This study reveals that the countries under study, i.e., India, US, and Japan, have shown a significant improvement in their overall disclosure scores over the five year period.
78	Alves, Rodrigues,	Portugal	The study on the	OLS	The main determinants of voluntary

	& Canadas (2012)		relationship between corporate characteristics, corporate governance variables, and voluntary disclosure in the annual reports of Portuguese and Spanish listed companies.		disclosure are the variables related with company size, growth opportunities, organization performance, board compensation, and the presence of a large shareholder.
79	Haji (2012)	Nigeria	The trends of intellectual capital disclosures: Evidence from the Nigerian banking sector	Content analysis	Intellectual capital disclosure of Nigerian banks increased moderately over the four year period
80	**Author(s)** Izedonmi adin (2012)	**Country** Nigeria	**Title/objective** The association between selected corporate governance attributes and timeliness of financial reporting	**Methodology** Descriptive statistics OLS	**Major Findings** Audit delay was statistically significant with timeliness of financial reports.
81	Chakroun & Matoussi (2012)	Tunisia	The determinants of voluntary disclosure in the annual reports of the	Multiple regression analysis	The results provide a strong support that both indexes of voluntary disclosure (closely linked to

			Tunisian firms.		mandatory disclosure and the one not closely linked) are affected by the external and internal mechanisms of governance.
82	Qu (2011)	China	Voluntary disclosure of strategic, financial, and non-financial information in 297 listed companies' annual reports in the reporting periods of 1995-2006	OLS	Findings of this study show that voluntary disclosure made by listed companies in the Chinese stock market increased over the testing period, meaning that companies have positively reacted to the changed corporate disclosure environment in China.
83	**Author (s)** Sukthomya (2011)	**Country** Thailand	**Title/objective** The extent of voluntary disclosure of 100 companies listed in the SET100 Index of the Stock Exchange of Thailand.	**Methodology** Multiple regression analysis	**Major Findings** The results reveal that company size is associated with the increase in the level of voluntary disclosure.
84	Idebimpe, U. & Okougbo, P	Nigeria	Corporate governance, company attributes and voluntary disclosure of	Univariate and multivariate analysis	Board size has a significant positive relationship with the extent of

	(2011)		listed companies		voluntary disclosure
85	Rouf and Harun (2011)	Bangladesh	Ownership structure and voluntary disclosure levels in the 2007 annual reports of 94 samples of Bangladesh listed companies.	OLS	Companies with higher management of ownership structure may disclose less information and higher institutional ownership structure may disclose more information to shareholders through voluntary disclosure.
86	Arshad and Ismail (2011)	Malaysia	the effect of management perception on the disclosure of risk-related information in companies' annual reports	Multiple regression analysis	The findings reveal that enhanced understanding and perception on the overall risk concepts are important drivers that can facilitate managers in disclosing more comprehensive and relevant risk-related information.
	Author (s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
87	Rouf (2011)	Dhaka	Corporate voluntary disclosure of management's responsibilities in the Bangladeshi listed companies during 2005-2008.	OLS	The results showed that voluntary disclosure level has a negative relation with the percentage of equity owned by the insiders, and a positive relation with the percentage of equity held by institutional shareholders, board of audit committee, and board leadership structure.

88	Yi (2010)	China	Intellectual capital disclosure in Chinese (mainland) companies	Content analysis	Intellectual capital disclosure is not significant and the quality is not strong
89	Abeysekera (2010)	Kenya	The influence of board size on intellectual capital disclosure by Kenyan listed firms	Logistic regression	Firms disclosing more factual internal capital and strategic human capital have larger boards
90	Hossain and Hammami (2009)	Qatar.	The determinants of voluntary disclosure in the annual reports of 25 listed companies of Doha Securities Market in Qatar.	OLS	The result of the study indicated that profitability is insignificant in explaining the qualitative information disclosure.
Summary of Empirical Studies Continues					
	Author (s)	**Country**	**Title/Objective**	**Methodology**	**Major Findings**
91	Ani (2009)	Malaysia	Intellectual capital reporting and corporate characteristic of public listed companies in Malaysia	Content analysis	Intellectual capital disclosure by the sample firms is not extensive.
92	Rajab and Handley-Schachler (2009)	UK	Risk disclosure practice and relates the extent of risk disclosure to firm-	Multiple regression analysis	The study found, a trend of increasing amounts of risk disclosure in the annual report over the six-year

			specific characteristics.		period influenced by accounting regulation and accounting institutes' recommendations.
93	Wang (2008)	China	Determinants of voluntary disclosure in the annual reports of Chinese listed firms that issue both domestic and foreign shares.	OLS	The result Indicate that the level of voluntary disclosure is positively related to the proportion of state ownership, foreign ownership, firm performance measured by return on equity, and reputation of the engaged auditor.
94	Suyan & Abeysekera (2008)	Australia	Intellectual capital reporting practices of the top Australian form		Intellectual capital is yet to be done with a consistent framework

Summary of empirical studies continues

	Author(s)	**Country**	**Title/objective**	**Methodology**	**Major Findings**
95	Barako (2007)	Kenya	The determinants of voluntary disclosure in Kenyan companies annual reports	Ordinary Least Square (OLS) with Panel-Corrected Standard Errors	Findings from this study indicate that, disclosures of all types of information are influenced by ownership structure and corporate characteristics.
96	Uwuigbe (2007)	Nigeria	Ownership structure and financial quality: evidence from listed firms in Nigeria	GLS	Significant relationships between institutional investors, management ownership and quality financial disclosure
97	Rabin, S and	Nigeria	Ownership structure and	Pearson correlation	Managerial ownership has an

	Mohammed (2007)		voluntary disclosure of listed financial service companies in Nigeria	regression analysis	insignificant and positive effect on voluntary disclosure while fisrm size showed a significant positive relationship with voluntary disclosure
98	HO & Taylor (2007)	USA & Japan	An empirical analysis of TBL reporting and its determinants evidence from United States and Japan	Regression analysis	The extent of reporting is higher for firms with larger size, while lower profitably indicate reduced disclosure.
99	Haladu and Salim (2007)	Nigeria	Sustainability reporting by firms in Nigerian (economy ,social and ve environmental disclosure)	Multiple regression	Environmental reporting is more significant in studied forms than social reporting
Summary of empirical studies continues					
100	**Author (s)** Nafaurg and (2007)	**Country** China	**Title/objective** Ownership structure and board composition on voluntary disclosure of listed companies in China	**Methodology** OLS	**Major Findings** High blockholder ownership and foreign listing/shares ownership is associated with increase voluntary disclosure. Bigger firms also showed greater disclosure than smaller firms.
101	Bontis, (2003)	Canada	Intellectual capital disclosure in Canadian	Content Analysis	The findings show a significantly small number of intellectual capital

			corporations		disclosure by Canadian companies.
102	Eng & Mak (2003)		Corporate governance and voluntary disclosure		Lower managerial ownership and significant government ownership are associated with increased disclosure

Source: Researcher's Compilation (2018)

2.8 Summary of Literature and Gap Identification

Based on the literature reviewed it can be deduced that most previous studies examined non-financial information disclosure using several determinants. Countries have different non-financial information context and disclosure requirements, in view of these, the findings of the various studies may not be appropriately relevant or having direct bearing with Nigerian setting. This observation can best be explained with the declaration of the IASB on non-financial information disclosure. This declaration increased the possibility of non compliance because in the present era, the accounting profession is bound by pronouncements of the IASB so that a voluntary requirement may impact practice. Nevertheless, if companies anticipate net benefits of publishing information that exceeds the minimum requirements then they occasionally make voluntary disclosure. These reviewed studies show that the level of non financial information disclosures (voluntary information) could be determined using company attributes variables (firm size, leverage, profitability, age, listing and auditor type), corporate governance variables (like board size, board independence, audit committee), and ownership structure variables (institutional ownership, managerial ownership, foreign ownership, state ownership, ownership concentration. These studies however, failed to examine a possible relationship or interaction among these variables in explaining or predicting the effect they have on non financial disclosure. Furthermore, with the increase in knowledge and interest of researchers to explain dichotomous variables and the consistent use of the traditionally approaches to answer these research questions with either the ordinary least squares (OLS) regression or linear discriminant function analysis as observed from reviewed studies. These techniques have been subsequently found to be less than ideal for handling dichotomous outcomes due to

their strict statistical assumptions, i.e., linearity, normality, and continuity for OLS regression and multivariate normality with equal variances and covariance for discriminant analysis (Cabrera, 1994; Cleary & Angel, 1984; Cox & Snell, 1989. This study employed the binomial logistic regression to fill the observed weaknesses from previous literature by examining the likelihood of the identified variables to explain Non financial information Disclosure. Accordingly, it integrates the two main streams of voluntary disclosure as identified by Chau and Gray (2010). They clarify that the literature on voluntary disclosure and its determinants that dates back to Cerf (1961) has resulted in two streams of research: one focusing on the impact of firm characteristics on voluntary disclosure and the second is concerned with the impact of corporate governance variables such as ownership structure, and board characteristics, on voluntary disclosure (Chau and Gray, 2010). Accordingly, the theoretical contribution of the current research is strengthened, since it aims to assess both streams. To the best of our knowledge, these three observed gaps have not been given adequate attention by studies from Nigeria. Hence, the study distinguishes itself from previous studies in these aspects.

CHAPTER THREE

METHODOLOGY

3.1 Research Design

The study employed the ex-post facto research design. The study is longitudinal and will cover a six year period, 2012 to 2017, involving listed consumer and industrial companies in the Nigerian Stock Exchange. The rationale for the choice of the listed firms for a study of this magnitude is because they command massive followership than non-listed firms due to the size of stakeholders. This study will use panel data.

3.2 Population of the Study

The population of this study consist of twenty-one (21) consumer and fourteen (14) industrial goods companies listed on the Nigerian Stock Exchange as at 31st December, 2017. This form the total population of thirty-five (35) listed industrial and consumer goods companies. This population focuses on companies in the two major manufacturing activities of the economy.

These two companies were selected because of their contribution to national growth and development.

3.3 Sample Size

For the purpose of determining the sample size, the study observations is derived from Tabachnick and Fidell, (2007) formula for the determination of observations (sample size) in a linear regression model, stated as: $n \geq 50+8m$.

Where, n=sample size or observations; 50 and 8 are constant or fixed factors; m= number of predictors(explanatory variables) in a regression model, that is, 5 (we have, board

size, leverage, gross profit margin, return on asset, industry type). $n \geq 50+8(5) = 50+40 = 90$. We have ninety observations, it implies that our observations should not be less than 90 data points but it can be more than 90 observations or data points in order to have a good-fit model result.

The non-probability sampling technique (judgemental/quota sampling) was used in selecting 12 twelve consumer and 10 industrial goods listed companies from the thirty-five (35) selected listed companies to form the sample size of 22 selected listed companies based on market capitalisation and availability of complete audited annual accounts for the period of six years (2012-2017) . This is to ensure that company listed on the two sectors are closely related. A total of one hundred and thirty-two observations (132) were studied.

Sample Size Selection 10 Industrial and 12 Consumer Goods were selected based on Market Capitalisation and Availability of Audited Annual Accounts and Reports Covering 2012-2017.

S/N	NAMES OF CONSUMER GOODS COMPANIES	MKT CAPITALISATION
1	NESTLE NIGERIA PLC. (NESTLE)	1,109,718,752,800.00
2	NIGERIAN BREW. PLC. (NB)	703,727,380,488.00
3	INTERNATIONAL BREWERIES PLC. (INTBREW)	275,067,581,952.00
4	UNILEVER NIGERIA PLC. (UNILEVER)	249,907,735,639.50
5	DANGOTE SUGAR REFINERY PLC (DANGSUGAR)	176,400,000,000.00
6	GUINNESS NIG PLC (GUINNESS)	173,040,242,701.00
7	FLOUR MILLS NIG. PLC. (FLOURMILL)	85,287,895,784.00
8	P Z CUSSONS NIGERIA PLC. (PZ)	50,028,010,767.00
9	NASCON ALLIED INDUSTRIES PLC (NASCON)	49,014,609,993.00
10	DANGOTE FLOUR MILLS PLC (DANGFLOUR)	40,000,000,000.00
11	CADBURY NIGERIA PLC. (CADBURY)	17,842,919,380.00
12	CHAMPION BREW. PLC. (CHAMPION)	12,683,784,271.68
NAMES OF COMPANIES-INDUSTRIAL GOODS		**MARKET CAPITALISATION**
13	DANGOTE CEMENT PLC.	3,621,107,823,562.50
14	LAFARGE AFRICA PLC.	158,290,065,380.00
15	BETA GLASS PLC.	31,048,261,200.00
16	CAP PLC.	20,020,000,000.00
17	CUTIX PLC.	3,575,483,712.78
18	AUSTIN LAZ & COMPANY PLC	2,256,907,400.00
19	PORTLAND PAINTS & PRODUCTS NIGERIA PLC.	1,999,407,148.20
20	BERGER PAINTS PLC	1,912,834,750.20
21	PREMIER PAINTS PLC.	1,279,200,000.00
22	FIRST ALUMINIUM NIGERIA PLC.	696,418,549.86

Source: Nigerian stock exchange

3.4 Source of Data Collection

This study used secondary sources of data collection. Historical data was obtained from the audited annual report of companies under study. Non financial information disclosure data will be obtained from Chairman's statement, and other non-financial Information. A draft copy of the proposed checklist compiled from Global Reporting Initiative (GRI, 2015) and

CBN corporate disclosure guideline is attached before the references and tagged "Appendix-I". The determining factors (company attributes) otherwise known as the quantitative information which will form the independent variables will be extracted from the quantitative section of the annual reports such as: comprehensive statement of Income, comprehensive statement of financial position and notes to accounts.

This study used dichotomous data to measure non financial information disclosures. A similar approach has been used by previous studies such as Eriabie and Odia (2016); Wachira (2018) on corporate social and environmental disclosure studies. The use of unweighted dichotomous index reduces subjectivity involved in determining the weights of each item (Williams, 2001; Ahmed & Courtis, 1999). The disclosure item was awarded a score of one (1) if it is disclosed in the corporate annual report or zero (0) if it is not disclosed. A compiled disclosure index can be found in Appendix I.

3.5 Method of Data Analysis

For the purpose of the empirical analysis, the study used both inferential and descriptive statistical techniques. Specifically, descriptive statistics was conducted to obtain the sample characteristics via classification table and pie-charts. The binomial/binary logistic regression analysis was also performed to test the effect of the independent variables on the non financial disclosure proxies. Some conventional diagnostic tests such as Hosmer and Leme show Test (Data-fit model prediction), Omnibus Tests (Significance of Model Coefficients), Box and Twidell (1962) test (linearity assumption test between continuous predictors and the logit (log odds) by using model interaction was equally conducted to address some basic underlying regression analysis assumptions. In logistic regression, the odds ratio represent the constant effect of predictor X on the likelihood that one outcome will occur. The

analyses will be performed using SPSS version-23. Our data conformed to the basic underlying assumptions of binomial/binary logistic regression analysis; see Appendix-III and IV for more detail.

Decision Rule

The decision was based on 5% level of significance. Accept (Ho) if probability value (ie p-value) is greater than or equals to stated 5% level of significance; otherwise reject and accept alternate hypothesis if p value or sig calculated is less than 5% level of significance.

3.6 Model Specification

Model specification for company attributes and non financial information disclosure among Nigeria listed companies:

The empirical approach used to analyse the effect of firm Attributes on non-financial information disclosure is based on binary choice models which describe the probability of disclosing non financial information between two mutually exclusive alternatives (disclosure and non disclosure).

Let the utility function of firm attributes be 'f' where Yf is a dichotomous variable denoting whether the firm discloses non financial information or not disclosing.(1 if yes,0 otherwise).

The Firm will choose to disclose if such choice implies an increase in the accepted level from stakeholders compared to not disclosing:

$U_{1n}(Y_f=1,X_f) > U_{0f}(Y_f= 0, X_f)$.....3.6.1

Consequently, the probability that the firm f chooses to disclose can be written as:

$P_f(Y_f=1)=P_r(U_{1f} > U_{0f})$.....3.6.2

Logit model and probit model are commonly used in literature in analysing prediction. According to pohlman and leitner (2003) ordinary least square and logistic regression can be used to test the relationship with binary outcome but logistic regression is superior to OLS at predicting probabilities on the dependent outcome. Therefore, the empirical model is specified as follows:

$P_f(Y_f=1) = \frac{1}{1+e-} (\alpha + \beta xf)$ 3.6.3

Where Yf is dependent variable equal to 1 if the firm discloses and 0 if otherwise

Pf is the estimated probability of a firm disclosing non financial information disclosure.

With logit transformation, the estimated model becomes a linear function of the explanatory variables, which is expressed as follows:

$\text{Logit}\,[P_f\,(Y_f=1)] = \text{Log}\{P_f/(1-P_f)\} = \alpha + \beta X_f$ ----------3.6.4

Where: α is a constant term

β is a vector of coefficients for the independent variable X_f.

X_f is a vector of independent variables.

A coefficient attached to an independent variable is interpreted as change in the logit (log odds that Y=1),for a unit increase in the independent variable, with the other independent variable constant. The model was adapted from Van (2012) who identified ten key variables in his study. Some of his variables were dropped after considering differences in socio-economic conditions of the two environments.

Non-financial Information Disclosure (NFD) = f(Company Specific Characteristics[CSC])…..***eqn3.5.1***

Eqn.3.5.1 is functional or notational form.

Introduce the measured or observed variables for both exogenous and endogenous variables.

ENVID = f(ROA, OWNS, BZ, IT)……...***eqn3.5.3***

ICAD = f(BZ, GPM, FZ, IT)…….…...***eqn3.5.4***

RIMD = f(LEV,IT)……....***eqn3.5.5***

ECOD = f(LEV,FZ)……..***eqn3.5.6***

NID-ENVID, RIMD, ICAD, ECOD = f(CSC-OWNS, BZ, GPM, FZ, LEV,IT ……3.5.7

Equations 3.5.9 to 3.5.14 are deterministic model for each research objectives:

$ENVID_{it} = \gamma_0+\beta_1ROA_{it}+\beta_2OWNS_{it}+\beta_3BZ_{it}+\beta_4IT_{it}$ …….eqn 3.5.9

$ICAD_{it} = \gamma_1+ \beta_5BZ_{it}+ \beta_6GPM_{it}+ \beta_7FZ_{it} + \beta_8IT_{it}$ ……eqn 3.5.10

$RIMD_{it} = \gamma_2+\beta_9LEV_{it}+ \beta_{10}IT_{it}$ …….……..…eqn 3.5.11

$ECOD_{it} = \gamma_3+\beta_{11}LEV_{it}+\beta_{12}FZ_{it}$ ……..…eqn 3.5.12

NID-ENVID, RIMD, ICAD, ECOD = f(CSC-OWNS, BZ, GPM, FZ, LEV,IT

Equations 3.5.15 to 3.5.20 are binomial logistic regression equation/model:

$\ln(ODDS)_{ENVIDit} = \gamma_0+\beta_1ROA_{it}+\beta_2OWNS_{it}+\beta_3BZ_{it}+\beta_4IT_{it}$ …eqn 3.5.15

$\ln(ODDS)_{ICADit} = \gamma_1 + \beta_5 BZ_{it} + \beta_6 GPM_{it} + \beta_7 FZ_{it} + \beta_8 IT_{it}$ …….eqn 3.5.16

$\ln(ODDS)_{RIMDit} = \gamma_2 + \beta_9 LEV_{it} + \beta_{10} IT_{it}$ ……eqn 3.5.17

$\ln(ODDS)_{ECODit} = \gamma_3 + \beta_{11} LEV_{it} + \beta_{12} FZ_{it}$ ……eqn 3.5.18

NID-ENVID, RIMD, ICAD, ECOD = *f*(CSC-OWNS, BZ, GPM, FZ, LEV,IT

Odd ratio-Exp(B):

ODDS= e^{a+bx} [the odd ratio prediction equation]

ODDS= $e^{\gamma 5 + \beta 15 FZit + \beta 16 ITit}$

Table 3.5.1: Operationalization of Variables

SN	Names	Type/code	Measurement(s)	Apriori Sign
1.	**Non-Financial Information Disclosure**	**QID-Endogenous (latent)**	**ENVID, COD, RIMD, ICAD, ECOD**	**NA**
2.	Environmental qualitative information disclosure.	ENVID-observed dependent	"1" denotes that it is disclosed in annual report and accounts "0" denotes otherwise.	nil
3	Risk management qualitative information disclosure.	RIMD-observed dependent	"1" denotes that it is disclosed in annual report and accounts "0" denotes otherwise.	nil
4.	Intellectual capital qualitative information disclosure.	ICAD-observed Dependent	"1" denotes that it is disclosed in annual report and accounts "0" denotes otherwise.	nil
5.	Economic qualitative information disclosure.	ECOD-dependent	"1" denotes that it is disclosed in annual report and accounts "0" denotes otherwise.	nil
6.	**Companies' Specific Characteristics**	**CSC-Exogenous (latent)**	**OWNS, BZ, GPM, FZ, LEV**	**NA**
7.	Ownership structure	OWNS-Independent [observed]	Directors' interest÷ total shareholders' interests	+
8	Board size	BZ-Independent [observed]	Total number of directors on the companies' board.	_
9.	Gross profit margin	GPM-Independent [observed]	Gross profit ÷revenue	+
10.	Firm size	FZ-Independent [observed]	Log of total assets	+
11.	Leverage	LEV-Independent [observed]	Debt[loans]÷total asset	+
12	Industry type	IT- dichotomous	NSE classification	NA
13	Return on Asset	ROA-independent [observed]	EBITAD/Total Asset	NA
14.	$\gamma_{1\text{-}5}$ gamma	fixed/Constant term	Parameter	NA
15.	$\beta_{1\text{-}20}$-beta	Regression coefficients	Parameters	NA
16.	t-time	Years	Parameters	NA
17.	i-individual companies in samples	Number of companies	Parameters	NA
18.	$\ddot{Y}$-Error term	Stochastic random	Parameters	NA

Source: Researcher's Compilation, 2019.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

See appendix- II and III for more details in respect of the financial data of listed consumer and industrial goods companies in Nigeria.

Table 4.1.1: ***Classification Table for Environmental qualitative information disclosure Prediction from Board Size, Return on Asset, Industry type and ownership structure.***

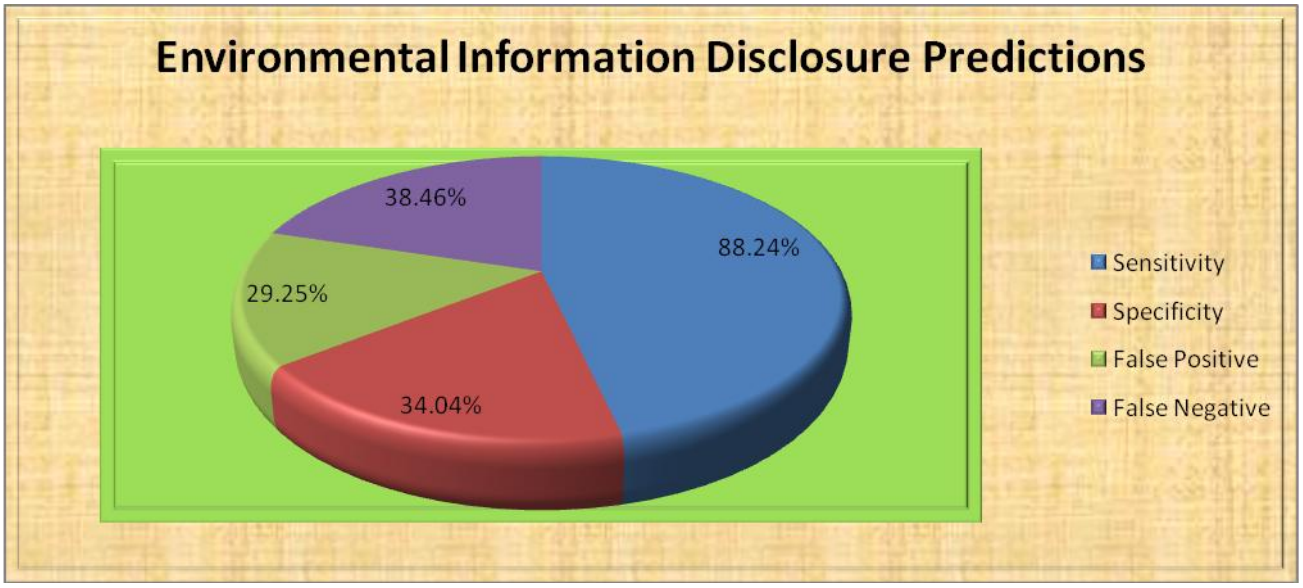
Observed	**Predicted**		
	Environmental qualitative information disclosure		**Percentage (%)**
	Undisclosed	**Disclosed**	**Correct**
Undisclosed	16	31	34.0
Disclosed	10	75	88.2
Overall Percentage	Nil	Nil	**91/132= 68.94**
Intercept/Constant	Nil	Nil	64.4
Predictions	**Fractions**	**Percentages (%)**	**Probability**
Sensitivity	75/85	88.24	0.8824
Specificity	16/47	34.04	0.3404
False Positive	75/96	29.25	0.7813
False Negative	10/26	38.46	0.3846

Source: Researcher's computation via SPSS version-23.

Table4.1.1 is classification table shows us that 0.5 allows us to correctly classify 75/85 = 88.2% of the subjects where the predicted event (deciding to disclose) was observed. This is known as the sensitivity of prediction, the P(correct event did occur-disclosed), that is, the percentage of occurrences correctly predicted. We also see that 0.5 allows us to correctly classify 16/47 = 34% of the subjects where the predicted event was not observed. This is known as the specificity of prediction, the P(correct event did not occur-undisclosed), that is, the percentage of non-occurrences correctly predicted. Overall our predictions were correct 91 out of 132 times, for an overall success rate of 68.94%. It was only 64.4% for model with intercept only.

Determination of error rates in classification. A false positive would be predicting that the event would occur when, in fact, it did not. Our decision rule (0.5) predicted a decision to disclose 106 times. That prediction was wrong 31 times, for a false positive rate of 31/106 = 29.25%. A false negative would be predicting that the event would not occur when, in fact, it did occur. Our decision rule (0.5) predicted a decision not to disclose (undisclosed) 26 times. That prediction was wrong 10 times, for a false negative rate of 10/26 = 38.46%. Figure 4.1.1illustrated the information in pie-chart form.

Figure 4.1.1: Pie-Chart for Environmental qualitative information disclosure Prediction from Board Size, Return on Asset, Industry type and Firms' Sizes.



Source: Researcher's design via Microsoft Excel-2012.

Table 4.1.2: ***Classification Table for Intellectual capital qualitative information disclosure Prediction from Board Size, Gross Profit Margin, Industry type and Firms' Sizes.***

Observed	**Predicted**		
	Intellectual capital qualitative information disclosure		Percentage (%)
	Undisclosed	Disclosed	Correct
Undisclosed	27	28	49.1
Disclosed	16	61	79.2
Overall Percentage	Nil	Nil	**88/132 = 66.67**
Intercept/Constant	Nil	Nil	58.3
Predictions	**Fractions**	**Percentages (%)**	**Probability**
Sensitivity	61/77	79.22	0.7922
Specificity	27/55	49.91	0.4991
False Positive	28/89	31.46	0.3146
False Negative	16/43	37.21	0.3721

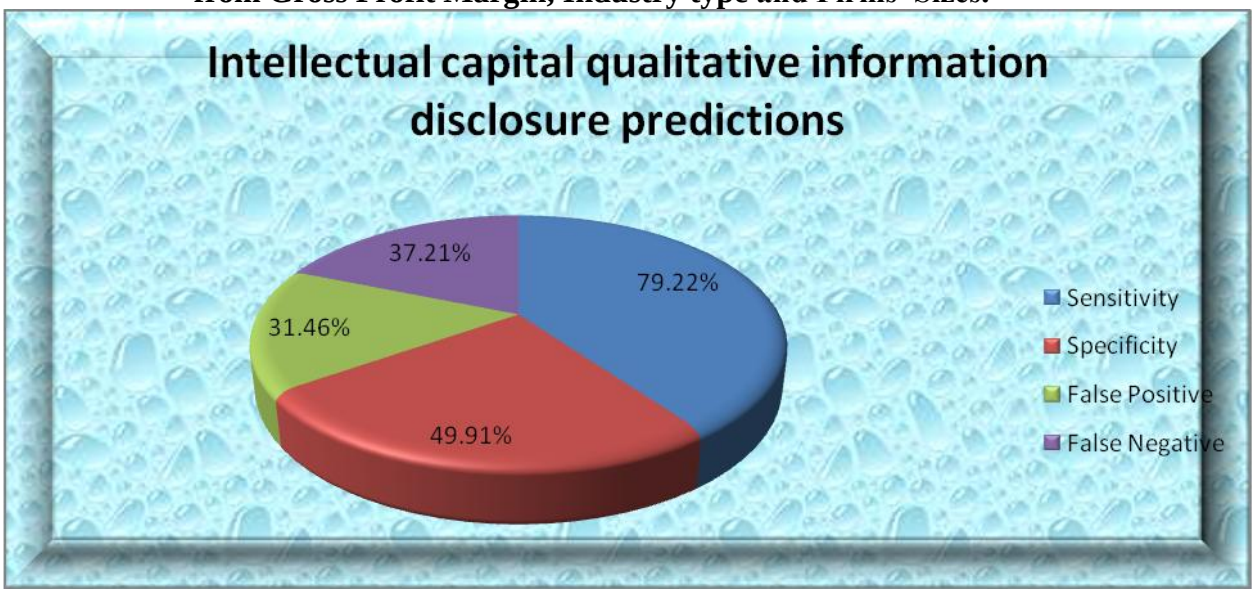
Source: Researcher's computation via SPSS version-23.

Table 4.1.2 is classification table shows that 0.5 allows us to correctly classify 61/77 = 79.22% of the subjects where the predicted event (deciding to disclose) was observed. This is known as the sensitivity of prediction, the P(correct event did occur-disclosed), that is, the percentage of occurrences correctly predicted. We also see that 0.5 allows us to correctly classify 27/55 = 49.91% of the subjects where the predicted event was not observed. This is known as the specificity of prediction, the P(correct event did not occur-undisclosed), that is, the percentage of non-occurrences correctly predicted. Overall our predictions were correct 88 out of 132 times, for an overall success rate of 66.67%. It was only 58.30% for model with intercept only.

Determination of error rates in classification. A false positive would be predicting that the event would occur when, in fact, it did not. Our decision rule (0.5) predicted a decision to disclose 89 times. That prediction was wrong 28 times, for a false positive rate of 28/89 = 31.46%. A false negative would be predicting that the event would not occur when, in fact, it did occur. Our decision rule (0.5) predicted a decision not to disclose (undisclosed) 43

times. That prediction was wrong 16 times, for a false negative rate of 16/43 = 37.21%.This analysis was also presented in Figure 4.1.2 in form of pie-chart.

Figure 4.1.2: Pie-Chart for Intellectual Qualitative Information Disclosure Prediction from Gross Profit Margin, Industry type and Firms' Sizes.



Source: Researcher's design via Microsoft Excel-2012.

Table 4.1.3: ***Classification Table forRisk ManagementQualitative Information Disclosure Prediction from Leverage.***

Observed	**Predicted**		
	Risk management qualitative information disclosure		Percentage (%)
	Undisclosed	Disclosed	Correct
Undisclosed	1	40	2.40
Disclosed	2	89	97.8
Overall Percentage	Nil	nil	**90/132=68.2**
Intercept/Constant	Nil	nil	68.9
Predictions	**Fractions**	**Percentages (%)**	**Probability**
Sensitivity	89/91	97.80	0.9780
Specificity	1/41	2.44	0.244
False Positive	40/129	31.01	0.3101
False Negative	2/3	66.67	0.6667

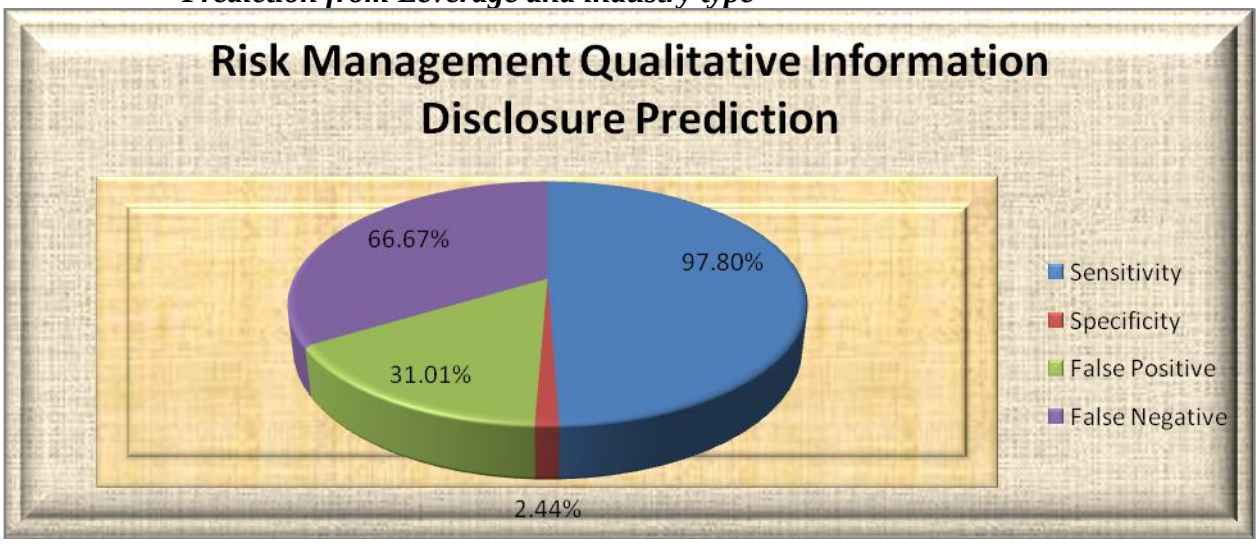
Source: Researcher's computation via SPSS version-23.

Table4.1.3 is classification table shows that 0.5 allows us to correctly classify 89/91 = 97.8% of the subjects where the predicted event (deciding to disclose) was observed. This is known as the sensitivity of prediction, the P(correct event did occur-disclosed), that is, the

percentage of occurrences correctly predicted. We also see that 0.5 allows us to correctly classify 1/41 = 2.40% of the subjects where the predicted event was not observed. This is known as the specificity of prediction, the P(correct event did not occur-undisclosed), that is, the percentage of non-occurrences correctly predicted. Overall our predictions were correct 90 out of 132 times, for an overall success rate of 68.2%. It was only 68.9% for model with intercept only.

Determination of error rates in classification. A false positive would be predicting that the event would occur when, in fact, it did not. Our decision rule (0.5) predicted a decision to disclose 129 times. That prediction was wrong 40 times, for a false positive rate of 40/129 = 31.01%. A false negative would be predicting that the event would not occur when, in fact, it did occur. Our decision rule (0.5) predicted a decision not to disclose (undisclosed) 3times. That prediction was wrong 2 times, for a false negative rate of 2/3 = 66.67%. This analysis was also presented in Figure 4.1.3 in form of pie-chart.

Figure 4.1.3: Pie-Chart for *Risk ManagementQualitative Information Disclosure Prediction from Leverage and industry type*



Source: Researcher's design via Microsoft Excel-2012.

Table 4.1.4: ***Classification Table forEconomic Qualitative Information Disclosure Prediction by Firm Size andLeverage.***

Observed	**Predicted**		
	Economic qualitative information disclosure		Percentage (%)
	Undisclosed	Disclosed	Correct
Undisclosed	3	39	7.1
Disclosed	2	88	97.8
Overall Percentage	Nil	nil	**91/132=68.9**
Intercept/Constant	Nil	nil	68.2
Predictions	**Fractions**	**Percentages (%)**	**Probability**
Sensitivity	88/90	97.78	0.9780
Specificity	3/42	7.143	0.7142
False Positive	88/127	69.29	0.6929
False Negative	2/5	40.00	0.4000

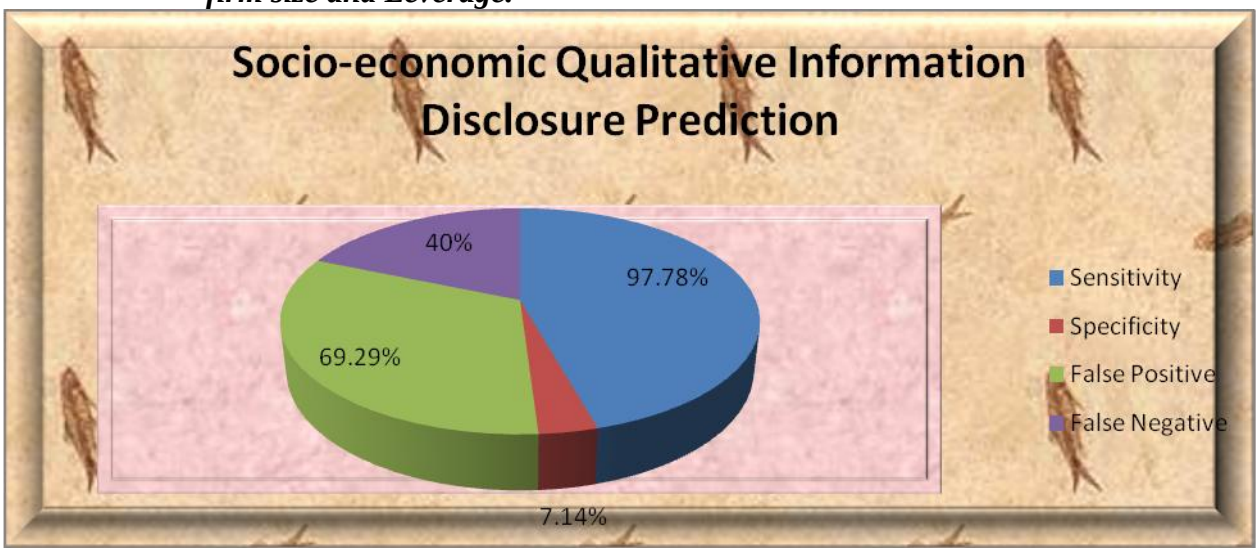
Source: Researcher's computation via SPSS version-23.

Table4.1.4 is classification table shows that 0.5 allows us to correctly classify 89/91 = 97.8% of the subjects where the predicted event (deciding to disclose) was observed. This is known as the sensitivity of prediction, the P(correct event did occur-disclosed), that is, the percentage of occurrences correctly predicted. We also see that 0.5 allows us to correctly classify 1/41 = 2.40% of the subjects where the predicted event was not observed. This is known as the specificity of prediction, the P(correct|event did not occur-undisclosed), that is, the percentage of non-occurrences correctly predicted. Overall our predictions were correct 90 out of 132 times, for an overall success rate of 68.2%. It was only 68.9% for model with intercept only.

Determination of error rates in classification. A false positive would be predicting that the event would occur when, in fact, it did not. Our decision rule (0.5) predicted a decision to disclose 129 times. That prediction was wrong 40 times, for a false positive rate of 40/129 = 31.01%. A false negative would be predicting that the event would not occur when, in fact, it did occur. Our decision rule (0.5) predicted a decision not to disclose (undisclosed)

3times. That prediction was wrong 2 times, for a false negative rate of 2/3 = 66.67%. This analysis was also presented in Figure 4.1.4 in form of pie-chart.

Figure 4.1.4: Pie-Chart for *Economic Qualitative Information Disclosure Prediction by firm size and Leverage.*



Source: Researcher's design via Microsoft Excel-2012.

Table 4.1.5: *Classification Table forCorporate GovernanceQualitative Information Disclosure Prediction by Firm Size and ROA*

Observed	**Predicted**		
	Corporate governance qualitative information disclosure		**Percentage (%) Correct**
	Undisclosed	**Disclosed**	
Undisclosed	0	32	0
Disclosed	0	100	100
Overall Percentage	Nil	nil	**100/132=75.8**
Intercept/Constant	Nil	nil	75.8
Predictions	**Fractions**	**Percentages (%)**	**Probability**
Sensitivity	100/100	100	1
Specificity	0/32	0	0
False Positive	32/132	24.24	0.2424
False Negative	0/0	0	0

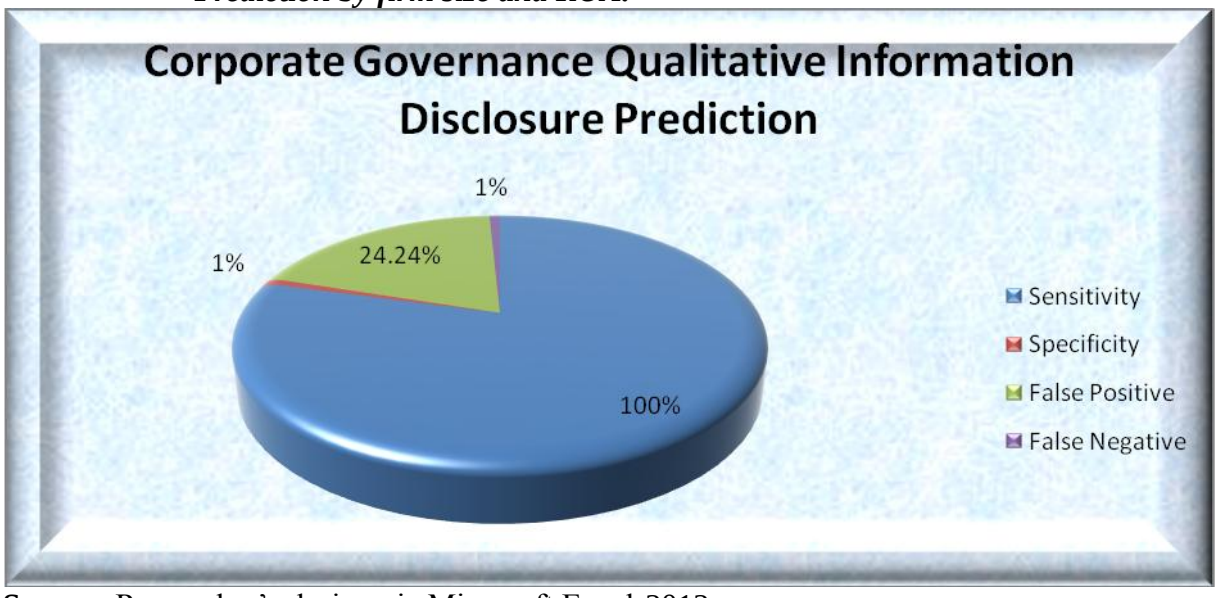
Source: Researcher's computation via SPSS version-23.

Table4.1.5 is classification table shows that 0.5 allows us to correctly classify 100/100 = 100% of the subjects where the predicted event (deciding to disclose) was observed. This is known as the sensitivity of prediction, the P(correct|event did occur-disclosed), that is, the

percentage of occurrences correctly predicted. We also see that 0.5 allows us to correctly classify 0/32 = 0% of the subjects where the predicted event was not observed. This is known as the specificity of prediction, the P(correct|event did not occur-undisclosed), that is, the percentage of non-occurrences correctly predicted. Overall our predictions were correct 100 out of 132 times, for an overall success rate of 75.75%. It was only 75.75% for model with intercept only.

Determination of error rates in classification. A false positive would be predicting that the event would occur when, in fact, it did not. Our decision rule (0.5) predicted a decision to disclose 132 times. That prediction was wrong 32 times, for a false positive rate of 32/132 = 24.24%. A false negative would be predicting that the event would not occur when, in fact, it did occur. Our decision rule (0.5) predicted a decision not to disclose (undisclosed) 3times. That prediction was wrong 2 times, for a false negative rate of 0/0 = 0%. This analysis was also presented in Figure 4.1.5 in form of pie-chart.

Figure 4.1.5: Pie-Chart for *Corporate Governance Qualitative Information Disclosure Prediction by firm size and ROA*.



Source: Researcher's design via Microsoft Excel-2012.

4.2 Answers to Research Questions

4.2.1 Answers to Research Questions

i. What is the joint prediction of return on asset, board size, industry type and ownership structure on environmental qualitative information disclosure of listed consumer and industrial goods companies in Nigeria?

Table 4.2.1: Model Summary of return on asset, board size, industry type and ownership structure combined effect on environmental qualitative information disclosure of listed consumer and industrial goods companies in Nigeria [2012-2017].

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
153.614	.129	.178

Source: Researcher's computation via SPSS version-23.

Table 4.2.1 shows Binomial logistic regression result of **Cox-Snell R^2** and **Nagelkerke R^2** values, which are methods of computing the explained variation in the dependent variable. These values are referred to as ***pseudo R^2*** values. The explained variation in the dependent variable (socio-environmental qualitative information disclosure) is based on our model ranges from 12.9% to 17.8%; that is, Cox & Snell R^2 or Nagelkerke R^2 methods, respectively. Our result is based on Nagelkerke $\boldsymbol{R^2}$. This implied that return on asset, (ROA) board size (BZ),industry type (IT) and ownership structure (OWNS) had jointly accounted for 17.8% change in the explained variable-environmental qualitative information disclosure (SEND).Can we conclude that return on assets, board size, industry type (IT) and ownership structure had not significantly predicted the socio-environmental information disclosure? This impelled us to test of hypotheses.

ii. To what extent do board size, gross profit margin, industry type and firms' size jointly predict intellectual capital qualitative information disclosure of listed consumer and industrial goods companies in Nigeria?

Table 4.2.2: Model Summary of board size, gross profit margin, industry type and firms' size joint prediction on intellectual capital qualitative information disclosure of listed consumer and industrial goods companies in Nigeria [2012-2017].

-2 Log likelihood	Cox & Snell R^2	Nagelkerke R^2
156.037	.162	.218

Source: Researcher's computation via SPSS version-23.

Table4.2.2 presents Binomial logistic regression results of **Cox-Snell-R^2** and **Nagelkerke-R^2** values, which are techniques of computing the explained variation in the explained variable. These values are referred to as ***pseudo-R^2*** values. The explained change in the dependent variable (intellectual capital qualitative information disclosure) is based on our model ranges from 16.2% to 21.8%; that is, Cox& Snell-R^2 or Nagelkerke-R^2 methods, respectively. Our result is based on Nagelkerke-$\boldsymbol{R^2}$. This implied that board size (BZ), gross profit margin (GPM), industry type (IT) and firms' size (FZ) had jointly predicted 21.8% change in the explained variable- intellectual capital qualitative information disclosure (ICAD).Can we presume that the likelihood of risk management information disclosure is not significantly influenced by leverage? This led us to test of hypotheses.

iii. What is the effect of leverage and industry type on risk management qualitative information disclosure of listed consumer and industrial goods companies in Nigeria?

Table 4.2.3: Model Summary of leverage and industry type prediction on risk management qualitative information disclosure of listed consumer and industrial goods companies in Nigeria [2012-2017].

-2 Log likelihood	Cox & Snell R^2	Nagelkerke R^2
155.325	.061	.085

Source: Researcher's computation via SPSS version-23.

Table 4.2.3 presents Binomial logistic regression of **Cox-Snell-R^2** and **Nagelkerke-R^2** values, which are procedures of computing the explained variation in the regress and. These values are referred to as ***pseudo-R^2*** values. The explained change in the dependent variable (risk management qualitative information disclosure) is based on our model ranges from 6.1% to 8.5%; that is, Cox& Snell-R^2 or Nagelkerke-R^2 methods, respectively. Our result is based on Nagelkerke-$\boldsymbol{R^2}$. This connotes that leverage and industry type (IT) had accounted for 8.5% change in the explained variable-risk management qualitative information disclosure. Can we deduce that the prediction of leverage on risk management information disclosure is not significant? This prompted us to test of hypotheses.

iv. To what extent is the prediction of leverage and industry type on economic qualitative information disclosure of listed consumer and industrial goods companies in Nigeria?

Table 4.2.4: Model Summary of leverage and Firm size prediction on economic qualitative information disclosure of listed consumer and industrial goods companies in Nigeria [2012-2017].

-2 Log likelihood	Cox & Snell R^2	Nagelkerke R^2
156.402	.064	.090

Source: Researcher's computation via SPSS version-23.

Table 4.2.4 shows Binomial logistic regression result of **Cox-Snell-R^2** and **Nagelkerke-R^2** values, which are techniques of determining the explained variation in the explained variable. They are referred to as ***pseudo-R^2***. The explained change in the economic qualitative information disclosure is based on our model ranges from 6.4% to 9%; that is, Cox& Snell-R^2 or Nagelkerke-R^2 methods, respectively. Our result is based on Nagelkerke-$\boldsymbol{R^2}$. This suggests that leverage (LEV) and industry type (IT) had predicted 9% change in the explained variable- socio-economic qualitative information disclosure (SECOD).Can we

deduce that the prediction of leverage on socio-economic information disclosure is not significant? This stimulated us to test of hypotheses.

v. ***What is the prediction of leverage and firm size on corporate governance qualitative information disclosure of listed consumer and industrial goods companies in Nigeria?***

Table 4.2.5: Model Summary of leverage and firm size joint prediction on corporate governance qualitative information disclosure of listed consumer and industrial goods companies in Nigeria [2012-2017].

-2 Log likelihood	Cox & Snell R^2	Nagelkerke R^2
136.510	.071	.106

Source: Researcher's computation via SPSS version-23.

Binomial logistic regression result is presented in Table 4.2.5 with **Cox-Snell-R^2** and **Nagelkerke-R^2** values, which are techniques of computing the explained variation in the explained variable. They are referred to as ***pseudo-R^2*** values. The explained change in the corporate governance qualitative information disclosure is based on our model ranges from 7.1% to 10.6%; that is, Cox& Snell-R^2 or Nagelkerke-R^2 methods, respectively. Our result is based on Nagelkerke-$\boldsymbol{R^2}$. This implied that leverage (LEV) and industry type (IT)had predicted 10.6% change in the explained variable-corporate governance qualitative information disclosure.

4.3 Test of Hypotheses

i. The joint prediction of return on asset, board size, industry type and ownership structure on environmental qualitative information disclosure of listed consumer and industrial goods companies in Nigeria is not significant.

Table 4.3.1: Model Prediction of environmental qualitative information disclosure from return on asset, board size industry type and ownership structure of listed consumer and industrial goods companies in Nigeria [2012-2017].

Variables	Exp(β)/ [β]	Sig.	Nagelkerke R^2	% classified correctly	$\chi 2$	df.	Sig.	Remarks
Model			17.8%	68.94%	18.281	4	.001	Accept H_a
H & L					4.245	8	.834	Model fit perfect
Interaction								Partial violation
ROA	281.71 [5.64]	.100						insignificant
BZ	43.07 [3.76]	.048						significant
OWN	.069 [-2.67]	.179						insignificant
IT(1)	0.84 [-.84]	.672						insignificant

Source: Researcher's computation via SPSS version-23.

Table 4.3.1 shows Binomial logistic regression result of **Nagelkerke R^2** values, which explained variation in the dependent variable. Table4.3.1 indicates that there is partial violation of linearity assumption and the data perfectly fit the model prediction [$\chi 2$ (8)=4.245; p=.834] (Hosmer & Lemeshow test). The explained variation in the dependent variable17.8%; that is, our model explained 17.8%(Nagelkerke R^2) of the variance in the disclosure of environmental qualitative information and correctly classified 68.94%.). Furthermore, the odds ratio (EXP B) of Return on Asset shows 281.7 which means for every one unit increase in return on assets, there is a 281 times more likelihood of environmental disclosure to be reported. The odds ratio(EXP B) of Ownership structure show 0.069,this means that for every additional increase in the number of directors, there is 31% less likelihood of environmental disclosure reporting. Furthermore, the odds ratio of board size is 43.06 signifying that for an additional increase in the total number of directors on the companies' board, there is 43%more likelihood of environmental disclosure to be reported.

Finally, the odds ratio of Industry type(consumer goods) indicate that consumer goods companies are 16% less likely to report environmental disclosure. The logistic regression model was statistically significant, [$\chi 2$ (4)=18.281, p< .05]. Increasing in board size (BZ) was associated with significant increase in likelihood of disclosing environmental qualitative information; but increase in return on asset (ROA) and ownership structure (OWNS) was associated with insignificant reduction in likelihood of disclosing environmental qualitative information. Based on the analysis conducted we accept alternate hypothesis ($\mathbf{H_a}$) and reject the null hypothesis($\mathbf{H_0}$)and conclude that return on assets, board size, industry type and ownership structure had significantly predicted the environmental qualitative information disclosure of listed consumer goods companies and listed industrial goods companies in Nigeria.

ii. The association of Board size, gross profit margin, industry type and firm size do not significantly explain intellectual capital qualitative information disclosure of listed consumer and industrial goods companies in Nigeria.

Table 4.3.2: Model Prediction of intellectual capital qualitative information disclosure from Board size, gross profit margin, industry type and firms' size of listed consumer and industrial goods companies in Nigeria [2012-2017].

Variables	Exp(β)/ [β]	Sig.	Nagelkerke R^2	% classified correctly	$\chi 2$	df.	Sig.	Remarks
Model			21.8%	66.7%	23.27	4	.000	Accept H_a
H & L					15.028	8	.059	Model fit perfect
Interaction					-	-	p>5%	notviolated
BZ	92.41 [4.53]	.037						significant
GPM	2339.399 [7.758]	.036						significant
FZ	1.081 [.078]	.802						insignificant
IT(1)	-.672 [-.84]	.124						insignificant

Source: Researcher's computation via SPSS version-23.

Table 4.3.2 shows Binomial logistic regression result of **Nagelkerke R^2** values, which explained variation in the dependent variable. Table4.3.2 indicates that there is no violation of linearity assumption and the data perfectly fit the model prediction [$\chi 2$ (8)=15.028; p=.059] (Hosmer & Leme show test). The explained variation in the dependent variable21.8%; that is, our model explained 21.8% (Nagelkerke R^2) of the variance in the disclosure of intellectual capital qualitative information and correctly classified 66.7%. The logistic regression model was statistically significant, [$\chi 2$ (4)=23.27, p< .05].This implied that consumer goods listed companies are 0.511 times less likely to disclose intellectual capital qualitative information to industrial goods listed companies. The odds ratio for this model shows that for an additional increase in the total number of directors on the company's board, there is 92% likelihood for intellectual capital disclosure to be reported. Similarly, GPM shows a 2339 more likelihood to influence intellectual capital reporting. Finally, a 1% increase in total assets indicates an 81% likelihood of intellectual capital

disclosure. Increasing in board size (BZ) and gross profit margin (GPM) were associated with significant increase in likelihood of disclosing intellectual capital qualitative information; but increase in firm size (FZ) was associated with insignificant increase in likelihood of disclosing intellectual capital qualitative information. Based on the analysis conducted we accept alternate hypothesis ($\mathbf{H_a}$) and reject the null hypothesis ($\mathbf{H_0}$) and conclude that board size (BZ), gross profit margin (GPM), industry type(IT) and firm size had significantly predicted the intellectual capital qualitative information disclosure of listed consumer goods companies and listed industrial goods companies in Nigeria.

iii. The prediction of leverage and industry type on risk management qualitative information disclosure of listed consumer and industrial goods companies in Nigeria is not significant.

Table 4.3.3: Model Prediction of risk management qualitative information disclosure from industry type and leverage of listed consumer and industrial goods companies in Nigeria [2012-2017].

Variables	Exp(β)/ [β]	Sig.	Nagelkerke R^2	% classified correctly	$\chi 2$	df.	Sig.	Remarks
Model			8.5%	68.2%	8.245	2	.016	Accept $\mathbf{H_a}$
H & L					10.34	8	.242	Model fit perfect
Interaction					-	-	p>5%	not violated
LEV	.00 [-10.9]	.019						significant
IT(1)	.685 [-.378]	.339						insignificant

Source: Researcher's computation via SPSS version-23.

Table 4.3.3 shows Binomial logistic regression result of **Nagelkerke R^2** values, which explained variation in the dependent variable. Table4.3.3 indicates that there is no violation of linearity assumption and the data perfectly fit the model prediction [$\chi 2$ (8)=10.34; p=.242] (Hosmer & Lemeshow test). The explained variation in the dependent variable

8.5%; that is, our model explained 8.5% (Nagelkerke R^2) of the variance in the disclosure of risk management qualitative information and correctly classified 68.2%. The logistic regression model was statistically significant, [$\chi 2$ (2)=8.245, p=.016].This implied that consumer goods listed companies are 31% less likely to disclose risk management qualitative information to industrial goods listed companies. Increase in leverage (LEV) was associated with insignificant decrease in likelihood of disclosing risk management qualitative information. The odds ratio shows that an increase in leverage will not likely improve risk management disclosure. Based on the analysis conducted we accept alternate hypothesis ($\mathbf{H_a}$) and reject the null hypothesis ($\mathbf{H_0}$) and conclude industry type and leverage had significantly predicted the risk management qualitative information disclosure of listed consumer goods companies and listed industrial goods companies in Nigeria.

iv. The effect of leverage and industry type on economic qualitative information disclosure of listed consumer and industrial goods companies in Nigeria is not significant.

Table 4.3.4: Model Prediction of economic qualitative information disclosure from firm size and ROA of listed consumer and industrial goods companies in Nigeria [2012-2017].

Variables	Exp(β)/ [β]	Sig.	Nagelkerke R^2	% classified correctly	$\chi 2$	df.	Sig.	Remarks
Model			9%	68.9%	8.727	2	.013	Accept $\mathbf{H_a}$
H & L					4.155	8	.843	Model fit perfect
Interaction					-	-	p>5%	not violated
ROA	.00 [-10.97]	.017						significant
FZ	-4.58 [.632]							insignificant

Source: Researcher's computation via SPSS version-23.

Table 4.3.4 shows Binomial logistic regression result of **Nagelkerke R^2** values, which explained variation in the dependent variable. Table4.3.4 indicates that there is no violation of linearity assumption and the data perfectly fit the model prediction [**$\chi 2$** (8)=4.155; p=.843] (Hosmer & Lemeshow test). The explained variation in the dependent variable is 9%; that is, our model explained 9% (Nagelkerke R^2) of the variance in the disclosure of economic qualitative information and correctly classified 68.9%. The logistic regression model was statistically significant, [**$\chi 2$** (2)=8.727, p=.013].This implied that Firm size is 68% less likely to influence disclosure on economic qualitative information. Increase in ROA was associated with significant decrease in likelihood of disclosing economic qualitative information. Based on the analysis conducted we accept alternate hypothesis (**H_a**) and reject the null hypothesis (**H_0**) and conclude firm size and ROA had significantly predicted economic qualitative information disclosure of listed consumer goods companies and listed industrial goods companies in Nigeria.

v. The prediction of leverage and firm size on corporate governance qualitative information disclosure of listed consumer and industrial goods companies in Nigeria is not significant.

Table 4.3.5: Model Prediction of corporate governance qualitative information disclosure from LEV AND FIRM SIZE of listed consumer and industrial goods companies in Nigeria [2012-2017].

Variables	Exp(β)/ [β]	Sig.	Nagelkerke R^2	% classified correctly	$\chi 2$	df.	Sig.	Remarks
Model			10.6%	75.8%	9.709	2	.008	Accept H_a
H & L					7.836	8	.450	Model fit perfect
Interaction					-	-	p>5%	not violated
LEV	.0 [-14.23]	.000						significant
FZ	1.05 [.051]	.907						insignificant

Source: Researcher's computation via SPSS version-23.

Table 4.3.5 shows Binomial logistic regression result of **Nagelkerke R^2** values, which explained variation in the dependent variable. Table4.3.5 indicates that there is no violation of linearity assumption and the data perfectly fit the model prediction [**$\chi 2$** (8)=7.836; p=.450] (Hosmer & Lemeshow test). The explained variation in the dependent variable10.6%; that is, our model explained 10.6% (Nagelkerke R^2) of the variance in the disclosure of corporate governance qualitative information and correctly classified 75.8%. The logistic regression model was statistically significant, [**$\chi 2$** (2)=9.709, p=.008].This implies that a unit increase in the assets of consumer goods companies lead to a 51% more likelihood to disclose corporate governance qualitative information. Increase in leverage (LEV) was associated with insignificant decrease in likelihood of disclosing corporate governance qualitative information. Based on the analysis conducted we accept alternate hypothesis (**H_a**) and reject the null hypothesis (**H_0**) and conclude industry type and leverage had significantly predicted corporate governance qualitative information disclosure of listed consumer goods companies and listed industrial goods companies in Nigeria.

Summary of Logit Estimation Result

Variable non-financial information (NFID)

Method: Logistic regression

Number of observation: 132

LR Chi 2(7) = 390.6

Prob > chi 2 = 0.0000

Pseudo R^2 = 0.5799

Log likelihood = -153.95333

Predicators	Estimate	Z	P>/Z/	Odds ratio	95% CI
ROA	0.177473	2.46	0.019	1.1941	-2.641, 2.457
GPM	0.564978	2.67	0.013	1.7594	-3122, 3.252
OWNS	-0.122993	-0.74	0.704	0.8842	-5.365, 3.119
BZ	0.120579	0.43	0.523	1.1281	-3.346,5.587
LEV	-0.722461	-0.72	0.802	0.4855	-22.513, -2.931
FZ	-0.007058	-2.93	0.014	0.9929	-0.6768, .6627
IT	0.450757	2.07	0.045	1.5694	-0.485, 1.386
CONS	-0.621197	-2.72	0.018	0.5373	-10.341, 48.094

Source: Researcher's computation using STATA 11.0

Logistic model for non-financial information disclosure, goodness-of fit test

Number of observations = 132

Number of groups = 8

Hosmer-Lemeshow chi 2 = 7.90

From the model, the goodness of fit test, with R-value of .44, we can say that

The fitted logistic model is

Log sPn /(1-Pn) = 0.621 + .1774ROA + .5649GPM - .1229OWN + .1205BZ – 0.722LEV - .0070FZ + .4507IT

This result shows that return of asset is positively related to non-financial information disclosure as shown by the positive slope coefficient. This further asserts, that with other variables fixed, if ROA in the studied companies is increased, the tendency for improved non-financial reporting will also increase. Gross profit margin (GPM) equally showed a positive relationship with non-financial information disclosure,. With slope coefficient of .564. this shows that holding other variables fixed, an increase in the gross profit margin will lead to an improved disclosure ability of the firms. Also, if GPM of these companies are of

affected negatively, a reduction in non-financial visibility of the firms is expected. This conforms with the signally theory that higher profits lead to higher disclosure to attract more investors. The negative partial slope coefficient of -.1229 shown by the ratio of directors interest to shareholders interest is an indication that an increase in the ownership structure will lead to a decrease in non-financial information disclosure and vice versa. The performance gap between forms with high vs low expected agency cost as reflected in terms of higher differentials between board members interest alignments with those of shareholders influences the reporting policy of the firms. Also, board size a slope coefficient of (.1205) which is positively related to non-financial information disclosure.

Leverage and form size both showed negative coefficient of -0.722 and -.0070 which indicates negative relationship with non-financial information disclosure.

However, partial slope coefficient is not used for interpretation of results in logistic regression rather a more meaningful interpretation is done using odds ratio which is calculated by obtaining the antilog of the various slope coefficients. The CI endpoints for the corresponding regression parameters. The results are summarized in column five of table (see appendix).

Following the estimated regression, the odds ratio is calculated in order to estimate the probability of the predictor variables to explain non-financial information disclosure. The results shows that the odd ratio for ROA is 1.19, this is an indication that an increase in ROA by 1 unit, the probability of an increase in non-financial disclosure reporting 19% more likely to occur. The odds ratio for GPM is 1.75, this shows that 1% increase in the gross profit margin will lead to a 75% more likely disclosure of non-financial information,.

Subsequently, the odds ratio for BZ is 1.1281; this suggests that if the composition of the board is increased by 1%, the probability of non-financial information disclosure is 12% more likely to increase. Furthermore, industry type shows odds ratio of 1,56 which asserts that a 1% increase in government policies affecting a specific industry will account for probability of a 56% more likely disclosure of non financial information disclosure.

4.4 Discussion of Findings

The outcome of the study has shown that company attributes surrogates identified as Return on Assets, Board size, managerial ownership show a significant influence on environmental information disclosure of consumer and industrial goods in Nigeria for the period studied. The firm attributes showed varying result in relation to their respective influence on non-financial disclosure. Return on assets showed an insignificant relationship with environmental disclosure. This result is line with findings of (Yazdanfer, 2013; Ndukwe & Onwuchekwa, 2015; Osazuwa, Okoye & Izedonmi, 2013) whose study also showed that ROA is insignificantly associated with environmental disclosure. The influence of ROA on environmental disclosure is an indication that consumer and industrial goods companies disclose less information with lower ROA which is also an indication of low efficiency by management as a result of reduced incentive from a financial performance perspective. Also, board size, ownership structure and industry type showed an insignificant relationship with environmental disclosure, this result is consistent with the finding of Wang 2008 who found no relationship with ownership structure and voluntary disclosure but contradicts the finding of Hieu & Lan 2015 who recorded a statistically positive influence. Furthermore, board size showed a positive influence on environmental disclosure. This finding is in line with the findings of Bani (2017), Ofoegbu & Megbulum (2016), Nassreddina (2016), Ikpor & Agha

(2016),Ozordi et al (2018) who showed evidence of a relationship between board size on environmental disclosure. The joint influence of firm attributes on environmental disclosure is significant. This suggests that an increase in firm attributes increases the likelihood of environmental information disclosure. The influence of these attributes in explaining environmental disclosure provide insight that larger board size can help boards to overcome skill deficiencies in making more discretionary disclosure related to future earnings. Furthermore, corporations with large number of shareholders tend to be on the public eye and are subject to pressure from their multiple users for detailed disclosure. These large companies are watched by the various government agencies and stakeholders forcing them to disclose more information. Large firms are visible and generally exposed to political attack such as pressure for social responsibility, ethical compliance and green investment friendly.

The results of Board size, gross profit margin, industry type and Firm size are positively significant as they jointly predicted an influence on intellectual capital information disclosure of the studied consumer and industrial goods companies. These revelation contradicts with the works of Al-hamadeen & Suwaiden (2014) who revealed a negative association between the variables. The finding however conforms with Adelopo (2011) who agreed to a positive relationship between Firm size and non financial information disclosure. The results equally contradicts with the finding of Efobi & Bala (2014) and Abeysekra (2010) who assert no relationship exists between Firm size intellectual Information disclosure. The association between firm size and non-financial disclosure can be argued that since large companies usually operate over wide geographical areas and deal

with multiple products and have several divisional units, they are likely to have well built information system that enables them to track all non-financial information for operational, tactical and strategic purposes. With this type of well structured internal reporting system, the incremental costs of supplying information to external users will be minimal. This will make them disclose more information than their smaller counterparts. The association of industry type indicates that the type of industry is a function of the operations and trainings in progress, for consumer and industrial goods companies, a knowledge of the both the structural and human capital obtaining in the industry will be an added competitive advantage for them.

The association between Leverage and industry type was established as these variables jointing influence of Risk management disclosure. These positive association is in line with the findings of Musa (2013), Rashidah et al (2013), Rajab &Elman(2017). The result however contradicts with Elman (2017), Efobi and Bala (2013) who found no association between leverage and non-financial disclosure. Furthermore, the results of Muhammad & sabo (2015) equally indicated a significant prediction between leverage and non financial information disclosures. The various leverage ratios considered in previous studies: debt to equity ratio, debt to total assets, total debt, and capital gearing ratio are indicators that disclosures are expected to increase with leverage. This can be supported with the argument that firms will want to disclose detailed information to gain access to the money market. According to Jenson and Meckling (1976), agency costs are higher for companies with more debt in their capital structure and disclosures are expected to increase with leverage. It can be argued that firms with high debt tend to disclose more information to assure creditors that shareholders and management are less likely to bypass their covenant claims.

The association of firm size and return on assets on economic information disclosure shows that less profitable firms may disclose less information to cover losses from stakeholders whereas profitable ones will want to distinguish themselves by disclosing more information so as to enable them to obtain capital on the best available terms. Corporate managers are usually reluctant to give detailed information about a non-profitable outlet or product, hence they might decide to disclose only a lump profit attributable to the whole company. This attitude may be to prevent undervaluation of the company's shares and in line with stakeholders theory to appear profitable to their financial stakeholders. It can also be argued that unprofitable companies will be inclined to release more information in defence of poor performance. In line with economic disclosure, the size of a firm encourages disclosure of the changing productivity of their organizations or sectors at large. With large firms, it is believed that the high profits that accrue to them can influence them to improve availability of products and services for those on low income, enhancing skills and knowledge amongst a professional community or in a geographical region. Report the significance of the impacts in the context of external benchmarks and stakeholder priorities, such as national and international standards, protocols, and policy agenda. Finally, the joint effect of leverage and firms size revealed a positive association with corporate governance disclosure. This finding confirms that corporations in "high profile" industries, are more likely to provide more extensive Corporate governance disclosure to their stakeholders

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

i. Return on assets, board size, industry type and managerial structure had significantly predicted the environmental qualitative information disclosure of listed consumer goods companies and listed industrial goods companies in Nigeria.

ii. Gross profit margin (GPM), industry type (IT) and firm size had significantly predicted the intellectual capital qualitative information disclosure of listed consumer goods companies and listed industrial goods companies in Nigeria.

iii. Industry type and leverage had significantly predicted the risk management qualitative information disclosure of listed consumer goods companies and listed industrial goods companies in Nigeria.

iv. ROA and firm size had significantly predicted economic qualitative information disclosure of listed consumer goods companies and listed industrial goods companies in Nigeria.

v. Leverage and Return on assets had significantly predicted Corporate Governance information disclosure of listed consumer goods companies and listed industrial goods companies in Nigeria.

5.2 Conclusion

Voluntary disclosure has been viewed by previous researches as contributing to improved confidence in corporate reporting by stakeholders. This study investigated the effect of company attributes on non financial information disclosure of listed industrial goods and consumer goods in Nigeria. The following conclusions were reached, company characteristics proxied by Profitability (return on Assets (ROA), board size and Ownership Structure significantly predict environmental Information disclosure of the observed Firms. These Firms also showed an improved financial performance than those who do not disclose their environmental Information. The Information on environmental disclosure is not exhaustive as most observed Firms did not include environmental litigation disclosure as such information were not readily available in their annual report.

Also, there was a significant prediction of board size, gross profit margin, industry type and firm size on Intellectual Capital disclosure of these companies, indicating that intellectual capital as an intangible asset has a great impact on today's knowledge based economy thereby improving the competitive advantage of these companies.

There was a significant association between industry type and leverage on Risk management disclosure of consumer and industrial goods companies in Nigeria. Industry type determined the presence of Risk management committees in the observed firms.

Lastly, the observed companies compliance with securities and Exchange Commission (SEC) requirements has a positive influence on Corporate governance disclosure of listed consumer and industrial goods in Nigeria. Increased number of board members reflects the presence of various experiences while reporting, leading to increased disclosures, and reduced information asymmetry. Based on agency theory a positive relationship was

expected between company size and corporate governance disclosure as large companies are more exposed to scrutiny by the public than small companies. The significant relationship between leverage/gearing and corporate governance disclosure might be due to the nature of the corporate environment and politically connected members holding powerful positions in listed companies.

5.3 Recommendations

Based on the above findings, we recommend;

- **i.** Firms should be encouraged to disclose more information on environmental related issues due to the inherent advantages therein. The huge risk of losing patronage of ethical stakeholders who may consider them as environmentally unfriendly firms will ultimately affect their performance.
- **ii.** Training and education should be provided by professional institutions to employee of these industries. Adequate knowledge of components of human and structural capital will improve the importance of intellectual capital disclosure. This will go further to greatly improve their awareness amongst globally competitive industries.
- **iii.** The importance and benefits of risk assessment and management will go a long way to attracting foreign investments.
- **iv.** Policy makers and regulators could issue corporate governance codes on comply/penalise basis to enhance transparency and disclosure.
- **v.** The importance and benefits of corporate governance disclosure to listed companies, including foreign investments' attraction, should be widely spread. This research calls for a more proactive effort from policy makers and standard setters to introduce a standard framework for mandatory disclosure of Non-financial information.

5.4 Contribution to Knowledge

This study investigated the effect of a firm attributes on Non financial information disclosure of consumer and Industrial goods listed on the Nigerian stock exchange. Previous studies investigated the contribution of single variables of firm attributes to explain Non-financial Information disclosure. The exceptionality of this study is that it combined more than one variable to explain Non financial Disclosure.

Furthermore, the study employed the binomial logistic regression to ascertain the probability of these combined variables to influence non financial information disclosure. As we explained earlier, logistic regression predicts the logit of an event outcome from a set of predictors. Because the logit is the natural log of the odds (or probability/[1–probability]), it can be transformed back to the probability scale. The resultant predicted probabilities was revalidated with the actual outcome to determine if high probabilities are indeed associated with events and low probabilities with non- events. The degree to which predicted probabilities agree with actual outcomes was expressed as either a measure of association.

The study also develops a conceptual model on Non financial information Disclosure and its relationship with the explanatory variable to determine the extent each item explains the dependent variable.

5.5 Suggestions for Further Studies

The following suggestions were reached for further study

1. An introduction of more variables not studied in this work to ascertain its effect on Non financial information Disclosure.
2. A joint prediction study of Firm attributes on Non financial information in another sector may show an exciting result that will help policy makers take reliable decisions.
3. A comparison of joint effect of firm attributes on non-financial information disclosure of different companies in different sectors.

REFERENCES

Abeyesekera, I. & G1uthrie, G. (2003). An empirical investigation of annual reporting trends of intellectual capital in SriLanka. *Critical Perspectives in Accounting*, *16*(3),151–163.

Abeyesekera, I. (2010). The influence of board size on intellectual capital disclosure by Kenyan listed firms", *Journal of Intellectual Capital,* 11(4),50-59 https://doi.org/10.1108/14691931011085655

Abeysekera, I. (2010). Intellectual capital reporting between a developing and developed nation. *Journal of Intellectual Capital*, 8(2), 329-345

ACCA. Report of Judges ACCAUK, (2007). Awards for Sustainability reporting ACCA, London.

Adamu, D. (2013). Risk reporting: A Study of Risk Disclosures in the Annual Reports of Listed Companies in Nigeria. *Research Journal of Finance and Accounting.* 4(1), 2222-2847.

Adefemi, U., Hassan, M. & Fletchesl, O. (2018). Corporate governance disclosure in Nigerian listed companies. *International Research Journal of Business Studies* , 11(2), 78-95.

Adelopo, I. (2011). Voluntary disclosure practices among listed companies in Nigeria. *Advances Journal in Accounting, 27*(2), 338−345.

Adesina, O. T., Ikhu-Omoregbe, S., & Olaleye, M. O. (2015). Disclosure, financial accounting information and corporate governance in listed companies in Nigeria. *Finance, Economics and Applied Research Journal, 2*(3), 1-12

Adrem, A. (1999). Essays on disclosure practices in Sweden: Causes and effects. *Lund University Press*.

Afolabi, M. O. (2013). Effect of financial reporting on investment decision making of manufacturing firms in Nigeria. *European Journal of Humanities and Social Sciences, 22(1), 1127-1142*

Aguilera, R.V., Filatotchev, I., Gospel, H., & Jackson, G. (2008). An organizational approach to comparative corporate governance: Costs, contingencies, and complementarities. *Journal of Organizational Science, 19*(3), 475–492.

Alsaeed, K. (2016). The association between firm-specific characteristics and disclosure: The case of Saudi Arabia", *Managerial Auditing Journal,* 21(5), 476-496. https://doi.org/10.1108/02686900610667256

Ahmad, K., & Courtis, J. K. (1999). Associations between corporate characteristics and disclosure levels in annual reports: A meta-analysis. *British Accounting Review, 2*(31), 35- 61.

AIMR, (1992). *Corporate information committee report.* Charlottesville, VA: Association for Investment Management and Research.

Akbaş, H. E. (2014). Company characteristics and environmental disclosure: An empirical investigation on companies listed on borsa Istanbul. *The Journal of Accounting and Finance, 2*(2),145-164.

Al-Hamadeen, R., & Suwaidan, M. (2014). Content and determinants of intellectual capital disclosure: Evidence from annual reports of the Jordanian industrial public listed companies, *International Journal of Business and Social Science*, 5(8), 165-175.

Ali, S. M., & Isa, M. A. (2018). Firms Attributes and Corporate Social Responsibility Disclosure: A Literature Review. *International Journal of Academic Research in Business and Social Sciences, 8(*4), 312–325.

Alsaeed, K. (2006). The association between firm-specific characteristics and disclosure: the case of Saudi Arabia. *Managerial Auditing Journal*, 21(5), 476-96.

Alsmady, A. A. (2018). Ownership Structure and its Endogeneity Effect on the Quality of Financial Reporting. *International Journal of Academic Research in Business and Social Sciences, 8(3), 509-526.*

Alves, H., Rodrigues, A. M., & Canadas, N. (2012). Factors influencing the different categories of voluntary disclosure in annual reports: An analysis for Iberian Peninsula listed companies. *Tekhne Review of Applied Management Studies, 10*(1), 15-26.

Amaeshi, K., Adi, B., Ogbechie, C., & Amao, O. (2016). Corporate Social Responsibility in Nigeria: Western Mimicry or Indigenous Influences? No. 39-2006, ICCSR Research Paper Series – ISSN 1479 – 5124. The University of Nottingham, 1- 44.

Amran, A., Abdul Manaf, R., & Che Haat, M.H. (2009).Risk reporting: An exploratory study on risk management disclosure in Malaysian annual reports. *Managerial Auditing Journal*, *24*(1), 39–57.

An, Y., Davey, H., & Eggleton, I.R.C. (2011).Towards a comprehensive theoretical framework for voluntary IC disclosure. *Journal of Intellectual Capital*, *12*(4), 571–585.

Andrikopoulos, A., & Kriklani, N. (2013). Environmental disclosure and financial characteristics of the firm: The case of Denmark. *Corporate Social Responsibility and Environmental Management, 20*(1), 55-64.

Arshad, R. & Ismail, R.F. (2011). Discretionary risks disclosure: A management perspective. *Asian Journal of Accounting and Governance, 5*(2), 67–77.

Asemah, E.S., Okpanachi, R.A., & Olumuji, E. O. (2013).Communicating corporate social responsibility performance of organisations: A key to winning stakeholders' goodwill. *International Journal of Artsand Humanities,* 2(3).

Association for Investment Management and Research. (1992). *Corporate Information Committee Report 1991 - 1992* (Report of the Association for Investment Management and Research Corporate Information Committee including evaluation of corporate financial reporting in selected industries for the year 1991-92).Charlottesville, VA: Author.

Azman, H., & Kamaluddin, A. (2009). Does disclosure of non-financial statement information reduce firms' propensity to under-invest? *Dissertation Presented To The Graduate School Of The University Of Florida.*

Azobi, C. (2010). Preparation of financial statements: Challenges of adopting IFRS and IPSA. *Being a paper presented at ICAN interactive session for Accountants in education on March, Lagos 18-10*

Bain, N., & Band, D. (1996).Winning ways through corporate governance. London: Macmillan Press Ltd.

Ball, R. (2001). Infrastructure requirements for an economically efficient system of public financial reporting and disclosure. In: *Brookings-Wharton Papers on Financial Services*, edited by R. Litan and R. Herring. Sashington, DC: Brookings Institution Press: 127-83.

Ball, R., (2006). International financial reporting standards (IFRS): Pros and cons for investors. *Accounting and Business Research, International Accounting Policy Forum*, *36*, 5–27.

Barac, Z.A., Granic, M. & Vuko, T. (2014).The determinants of voluntary disclosure in Croatia. World Academy of Science, Engineering and Technology, *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering,8*(4), 1057-1063.

Barako, D.G. (2007). Determinants of voluntary disclosures in Kenyan companies annual reports. *African Journal of Business Management,1*(5), 113-128.

Barako, D.G., Hancock, P., & Izan, I.H.Y. (2006).Factors influencing voluntary corporate disclosure by Kenyan companies. *Corporate Governance: An International Review, 14* (2), 107-125.

Barth, M.E., & Schipper, K. (2008).Financial reporting transparency. *Journal of Accounting, Auditing & Finance*, *23*(2), 173–190.

Berle, A. A., & Means, G. C. (1932).*The modern corporation and private property*. New York: Macmillan.

Berman, S. L., Wicks, A.C., Kotha, S., & Jones, T.M. (1999). Does stakeholder orientation matter? The relationship between stakeholder management models and firm financial performance. *Academy of Management Journal*, *42*(5), 488–506.

Binh, T. (2012). Voluntary disclosure information in the annual reports of non financial listed companies: the case of Vietnam. *Journal of Applied Economics and Business Research*, *2*(2), 69-90.

Bontis,(2003) "Intellectual capital disclosure in Canadian corporations", *Journal of Human Resource Costing & Accounting*, *7*(1), 9-20. https://doi.org/10.1108/eb029076.

Bos, A. de, Coebergh, H.P.T., & Olden, H. van (2008).Rules for the future– Opportunities for sustainable entrepreneurship in the Netherlands, Schiedam, Scriptum.

Bose, S., Saha, A., Khan, H. Z., & Islam, S. (2017). Non-financial disclosure and market-based firm performance: The initiation of financial inclusion. *Journal of Contemporary Accounting & Economics*, *12*, 1-50.

Bowen, D. E. (2009). *Accounting for the Environment*. Paul Chapman Publishing London.

Brammer, S., & Pavelin, S. (2008).Factors influencing the quality of corporate environmental disclosure. *Business Strategy and the Environment*, *17*(2), 120-136.

Bukh, P., Nielsen, C., Gormsen, P., & Mouritsen, J. (2005). Disclosure of information on intellectual capital in Danish IPO prospectuses. *Accounting Auditing and Accountability, Journal*, *18*,713-732.

Bushman, R. M., & Piotroski J. D. (2006). Financial reporting incentives for conservative accounting: The influence of legal and political institutions. *Journal of Accounting and Economics*, *42*(2), 107–148.

Bushman, R., & Smith, A. (2004). Financial accounting information and corporate governance. *Journal of Accounting and Economics*,*32*(2), 237–333.

Carroll, A.B. (1999). Corporate social responsibility: Evolution of a definitional construct. *Business and Society*, *38*, 268–295.

Chakroun, R., & Matoussi, H. (2012).Determinants of the extent of voluntary disclosure in the annual reports of the Tunisian firms. *Accounting and Management Information Systems*,*11*(3), 335–370.

Chan, C.C& Welford, M. (2005).'Investors reactions to corporate environmental saints and sinners: An Experimental analysis, Accounting and Business Research,24(4),pp.265-279.

Cho, C.H.,& Roberts, R.W. (2010). Environmental reporting on the internet by America's Toxic 100: Legitmacy and Self- presentation n. International Journal of Accounting information systems,111(1), 1-16.

Chaney, T., David S., & David T. (2012). The Collateral Channel: How Real Estate Shocks affect Corporate Investment. *American Economic Review,102*(6), 2381–2409.

Chavent, M., Ding, Y., Fu, L., Stolowy, H., & Wang, H. (2005).Disclosure and determinants studies: An extension using the divisive clustering method. *European Accounting Review*, 3(15), 181-218.

Choi, T. H., & Pae, J. (2011). Business ethics and financial reporting quality: Evidence from Korea. *Journal of Business Ethics, 10*(3), 403-427.

Chowdary, N.V. (2002). *Corporate governance: Principles and paradigms*. ICFAI Press, Hyderabad.

Christopher, J. (2010). Corporate governance: A multi-theoretical approach to recognizing the wider influencing forces impacting on organizations. *Critical Perspectives on Accounting*, *21*(8), 683–695.

Cieslak, K. Hamberg, M., & Vural, D., (2014). Regulatory reforms and disclosure incentives: the case of executive compensation disclosure in Sweden. Department of Business studies. Uppsala University.

Clark, J. M. (1916). The changing basis of economic responsibility. *Journal of Political Economy, 24*(3), 209-229.

Clarke, T. (2004).*Theories of corporate governance*. New York: Rout ledge.

Clarkson, M. B. E.(1995) A Stakeholder framework for analyzing and evaluating corporate social performance, Academy of Management Review,20(1),92-117.

Core, J., E., Guay, W. and Larcker, D. F. (2008). The power of the pen and executive compensation. *Journal of Financial Economics*. 88(1), 1-25.

Cormier, D., & Magnan, M. (2003). Environmental reporting management: A European perspective. *Journal of Accounting and Public Policy*, 22(1), 43–62.

Cormier, D., Ledoux, M.-J., & Magnan, M. (2011).The informational contribution of social and environmental disclosures for investors. *Management Decision*, *49*(8), 1276–1304.

Damarchi, Q.V., Amiri, F., & Rezvani, A.H. (2012). Disclosure and reporting of intellectual capital In. *Interdisciplinary Journal of Contemporary Research in Business, 3*(9), 155–167.

Davis, J. L., & Harisson, S. S. (2001). *Edison in the boardroom: How leading companies realize value from their intellectual assets*. Canada: John Wiley and Sons, inc.

De Villiers, C. J. (2003). Why do South Africa companies not report more environmental information when managers are so positive about this kind of reporting?, *Meditari Accounting Research, 11*, 11-23.

Deegan, C. (2002). The legitimizing effect of social and environmental disclosures: A theoretical foundation. *Accounting, Auditing and Accountability Journal, 15*(3), 282-311.

Deegan, C. M. (2007). *Financial accounting theory* (2nd ed.). Australia: McGraw-Hill. *International Journal of Business and Social Science, 3*(9)152 -164

Demerjian, P. R. (2017). Uncertainty and debt covenants. *Review of Accounting Studies, 22*(3),1156-1197.

Dey, A. (2008).Corporate governance and agency conflicts. *Journal of Accounting Research*, *46*(5), 1143–1181.

Dibia, N. O., & Onwuchekwa, J. C. (2015).Determinants of environmental disclosures. *International Journal of Finance and Accounting, 4*(3), 145-152

Dincer, B. (2011). Do the shareholders really care about Corporate Social Responsibility?*. *International Journal of Business and Social Science*, *2*(10), 71–76.

Dodd, E. (1932). For whom are corporate managers trustees? *Harvard Law Review, 45*(7), 1145–1163.

Donaldson, T. & Preston, L. E. (1995). The Stakeholder theory of the Corporation: concepts, evidence and implications. Academy of Management Review, 20 (1):65-91.

Donovan, J., Jennings, J., Koharki, K., & Lee, J. (2018). Determining credit risk using qualitative disclosure. Downloaded on 13th August from SSRN: https://ssrn.com/abstract=3149945

Dyna Seng, Sriyalatha Kumarasinghe and Rakesh Pandey, Intellectual capital disclosure in private sector listed companies in India, *Knowledge and Process Management*, 25(1), 41-53.

Eccles, R. G., & Krzus, M. P. (2009).*One report: Integrated reporting for a sustainable strategy*. Hoboken, N.J.: John Wiley & Sons.

Eccles, R. G., Serafein, G., & Consulting, M. K. (2011).Market interest in non financial information. *Journal of Applied Corporate Finance, 23*(4), 113–128.

Efobi, U.R., & Bwala, A. (2013).Voluntary information disclosure practice of listed companies in Nigeria. *Institute of Chartered Accountants of Nigeria-ICAN Journal of Accounting & Finance*, *2*(1), 13-30.

Elfeky, M. (2017). The extent of voluntary disclosure and its determinants in emerging markets: Evidence from Egypt. *The Journal of Finance and Data Science* 3(4), 45-59.

Elmans, S. (2012). Ownership structure and voluntary disclosure in Europe (Master thesis). *Eramus University of Rotterdam, Holland*.

Eltaib, E.E. (2012). Environmental accounting disclosure of Austrian oil and gas companies, Unpublished Master Thesis in Accounting. University of Wollongong

Eng, L. L. & Mak, Y. T. (2002). Corporate governance and voluntary disclosure. paper presented at the AAANZ conference.

Enthoven, A.J.H. (1985). Accounting in developing countries. *Comparative International Accounting*, *6*(7), 217-237.

Eriabie, S. & Odia, J. (2016). The influence corporate governance attributes on corporate social and environmental disclosure quality in Nigeria. *ESUT Journal of Accountancy, 7*(1), 217-235.

Ernst and Young. (2017). Is Your Non-Financial Performance Revealing the True Value of Your Business to Investors? Tomorrow´s Investment Rules 2017. Available online: https://www.ey.com/gl/en/services/assurance/climate-change-and-sustainability-services/ey-nonfinancial-performance-may-influence-investors (accessed on 12 August 2018).

Esa, E & Mohd Ghazali, N.A.M (2012).Corporate social responsibility and corporate governance in Malaysian government-linked companies. *The international journal of business in society*, 12(3), 292 – 305.

Ezeani, N. S., & Oladele, R. (2012).Adoption of international financial reporting standards (IFRS) to enhance financial reporting in Nigeria universities *Arabian Journal of Business and Management Review, 2*(3), 70 – 85

Fanke, B. (2018). Qualitative disclosure in corporate filings and loan terms.*Journal of Accounting Research, 8*, 1-42. Downloaded fromhttps://papers.ssrn.com/sol3/papers.cfm?abstract_id=3152458

Financial Accounting Standards Board (FASB), (2000). *Conceptual framework.*

Flack, T., & Douglas, E. (2007). The role of annual reports in a system of accountability for public fundraising charities, (PhD Dissertation).*Queensland University of Technology.*

Fowokan, T. (2011). IFRS adoption in Nigeria: Tax implications. *A paper presented at CITN seminar on IFRS Adoption in Nigeria 4-10*

Francis, J., LaFond, R., Olsson, P., & Schipper, K. (1994). Cost of equity and earnings attributes. *The Accounting Review, 79*(4), 967-1010.

Freeman, R. E., Wicks, A. C. & Parmar, B. (2004). Stakeholder theory and the corporate objective revisited. *Organ. Sci., 15*(3), 364–369.

Freeman, R.E. (1999). Divergent stakeholder theory. *Academy of management Review*, *24*(2), 233–236.

Freeman, R.E., Harrison, J.S., Wicks, A.C., Parmar, B.L., & Colle, de S. (2010). Stakeholder Theory – The state of the art, Cambridge, Cambridge University Press.

Freeman, R.E., & Reed, D. E., (1983). Stockholders and shareholders: a new perspective on corporate governance. *California Management Review,25 (3),93-94.*

Huafaung, M. and Jiangupl, B. (2007). *Managerial Auditing Journal* 22(6), 604-619 Emerald Group Publishing Limited0268-6902DOI 10.1108/02686900710759.

Graham, S., Harvey, S. & Michaely, P. (2005). The economic indication of corporate financial reporting. *Journal of Accounting and Economic, 40*(3), 37.

Garuba, A. O., & Donwa, P. (2011). The challenges of adopting international financial reporting system in Nigeria. *JORIND, I*(9), 313-317.

Ghasempour, A., & Yusof, M. A. (2014). The effect of fundamental determinants on voluntary disclosure of financial and non-financial information: The case of internet reporting on the Tehran stock exchange. *The International Journal of Digital Accounting Research,14*(3), 37-56

Ghazali, M. N. (2008). Voluntary disclosure in Malaysian corporate annual reports: Views of stakeholders. *Journal Corporate Social Responsibility, 4*(4), 504-516.

Gray, R., Javad, M., Power, D. & Sinclair, D. (2001). Social and environmental disclosure and corporate characteristics: a research note and extension. *Journal of Business and Accounting*, 28(3), 327-56.

Gray, R., Kouhy, R., & Lavers, S. (1995). Corporate social and environmental reporting: A review of the literature and a longitudinal study of UK disclosure. *Accounting, Auditing &Accountability Journal, 8*(2), 47–77.

Gray, R., Kouhy, R., & Lavers, S. (1995). Methodological themes constructing a research database of social and environmental reporting by UK companies. *Accounting, Auditing and Accountability Journal*, *8*(2), 78-101

Gary, R. & Adams, C. (2006). Social environmental and sustainability reporting and organisational value creation. Whose Value, Whose creation, Accounting, *Auditing &Accountability Journal,* 19(6), 793-819.

Global Reporting Initiative (GRI) (2015). GRI G4 Guidelines Part 2 Implementation Manual. Retrieved from https://www.globalreporting.org/Pages/resource-library.aspx

Grossman, H., & Hart, M. (1986). Value maximisation, stakeholder theory, and the corporate objective function. *European Financial Management Journal, 7*(3) 297–317.

Halim, H. A. (2015). Intellectual capital disclosure emphasis: An analysis of Malaysian annual reports. In *Proceedings of Global Business and Finance Research Conference*.

Hart, O. (1995). Corporate governance: some theory and implications. *The Economic Journal*, *105*(430), 678–689.

Hassan, O., & Marston, C. (2010). Disclosure measurement in the empirical accounting literature: A review article. *Woking paper no. 10-18. Brunel University*. Retrieved from: http://bura.brunel.ac.uk/bitstream

Hassan, O.A.G., Romilly, P., Giorgioni, G., & Power, D. (2009). The value relevance of disclosure: Evidence from the emerging capital market of Egypt. *The International*

Healy, P.M., & Palepu, K. J. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics, 3*(31), 405–440.

Hieu, P.D., &Lan, D. T. H. (2015). Factors influencing the voluntary disclosure of Vietnamese listed companies. *Journal of Modern Accounting and Auditing,11*(12), 656-676

Ho, L. J., & Taylor, M. E. (2007). An empirical analysis of triple bottom-line reporting and its determinants: Evidence from the United States and Japan. *Journal of international Financial Management and Accounting*, *18*(2), 123-150.

Hossain, M., & Hammami, H. (2009). Voluntary disclosure in the annual reports of an emerging country: the case of Qatar. *Advances in Accounting, Incorporating Advances in International Accounting*, *25*(2), 255-265.

Husillos, J., & Alvarez, M. (2008).A stakeholder-theory approach to environmental disclosures by small and medium enterprises (SMEs).*RC-SAR, 11*(1), 125–156.

IASB. (2015). International Accounting Standard Board (IASB) *Conceptual Framework for Financial Reporting - Exposure Draft ED/2015/3*. ed. IFRS Foundation.

Ikpor, I. M., & Agha, N. (2016). Determinants of voluntary disclosure quality in emerging economies: Evidence from firms listed in Nigeria stock exchange, impact: *International Journal of Research in Business Management, 4*(6), 51-66

Ilaboya, O. J. (2008). *Advanced financial accounting*. Benin City, Nigeria: Mindex Press.
International Finance Corporation (IFC). (2010). *Corporate governance manual* (2nd ed.). Hanoi.

Ismail, R., & Rahman, R. A. (2013).Risk management disclosure in Malaysian public listed companies. *Journal of Business Administration and Management Sciences Research*, *2*(7), 172–177.

Ismail, T.H. (2002). An Empirical Investigation of Factors Influencing Voluntary Disclosure of Financial Information on the Internet in the GCC Countries http://dx.doi.org/10.2139/ssrn.420700

Ismail, T. H. (2008). *Intellectual capital reporting in knowledge economy: Evidence from Egypt*. International conference on economic directions III: The College of Business Administration, Kuwait University.

Jamali, D., Safieddine, A. M., & Rabbath, M. (2008).Corporate governance and corporate social responsibility synergies and interrelationships. *Corporate Governance*, *16*(5), 443–459.

Jensen, M. C. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305-360.

Jouirou, M., & Chenguel, M.B. (2014).The determinants of voluntary disclosure in Tunisia: A study of the firms listed in the Tunisian stock exchange. *Journal of Business and Management Research,5*(4), 86-97. *Journal of Accounting, 44(1),* 79-102.

Kabir, I. (2014). Firm characteristics and voluntary segments disclosure among the largest firms in Nigeria. *International Journal of Trade, Economics and Finance, 5*(4), *327-331*

Karami A., & Akhgar, M. (2014). Effect of company's size and leverage features on the quality of financial reporting of firms non-financial listed in Tehran stock exchange. *Interdisciplinary Journal of Contemporary Research In Business, 6*(5), 71-80.

Kent, P., & Chan, C. (2009). Application of stakeholder theory to corporate environmental disclosures. *Corporate Ownership and Control*, *71*, 399–414.

Khales, S., Khilif, H. & Hussainey, K. (2015). The impact of board and audit committee characteristics on voluntary disclosure: A meta-analysis. *Journal of international accounting, auditing and taxation l2*(4), 13- -28
https://doi.org/10.1016/j.intaccaudtax.2014.11.001

Kiel, G.C., & Nicholson, G.J. (2003). Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance. *Corporate Governance: An International Review, 11*(3), 189–205.

Lan, Y., Wang, L., & Zhang, X. (2013). Determinants and features of voluntary disclosure in the Chinese stock market. *China Journal of Accounting Research, 6*(4), 265-285.

Lamberton. G.. (2005). Sustainability accounting-a brief history and conceptual framework. *Accounting Journal*, 22(7),1029-1054.

Learmount, S. (2002).*Theorizing corporate governance:* New organizational alternatives.

Leventis, S. and Weetman, P. (2004). Impression management: Dual language reporting and voluntary disclosure, *Accounting Forum*, 28(3), 307-328.

Li, H., & Zhao, P. (2011). A study of factors influencing voluntary disclosure of Chinese listed companies. *M & D Forum*, 245-257.

Linsley, P. M., & Shrives, P. J. (2006). Risk reporting: A study of risk disclosures in the annual reports of UK companies. *British Accounting Review, 38*(2), 387–404.

Lundberg, F., & Ahman, E. (2015). The effect of firm characteristics on disclosures: A Swedish context (Dissertation). Retrieved from http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-258802

Maroun, W. (2017).Assuring the integrated report: Insights and recommendations from auditors and preparers. The British Accounting Review 49: 329–46.

Marr, B., Gray, D., & Neely, A. (2003). Why do firms measure their intellectual capital?.*Journal of Intellectual Capital*, *4*(4), 441-464.

Meek, G.K., Roberts, C.B., & Gray, S. (1995). Factors influencing voluntary annual report disclosures by US, UK and continental European multinational corporations. *Journal of International Business Studies*, 26(3), 555-572.

Menon, K., & Williams, D. D. (2010). Investor reaction to going concern audit reports. *The Accounting Review, 85*(6), 2075–2105.

Mitchell, R., B. R. Agle, & D. J. Wood. (1997). Toward a theory of stakeholder identification and salience: Defining the principles of who and what really counts. *Academy of Management Review*. 22(4), 853-886.

Miihkin, .A, (2012) What Drives Quality of Firm Risk Disclosure?: The Impact of a National Disclosure Standard and Reporting Incentives under IFRS. *International Journal of Acoounting,vol47*(2)pp437-468 https://doi.org/10.1016/j.intacc.2012.10.005

Modarres, A., Alimohamadpour, A., & Rahimi, S. (2014). Determinants of corporate voluntary disclosure in the annual reports: The case study of Tehran Stock Exchange (TSE). *International Journal of Management and Humanity Sciences.3*(2), 2401-2407.

Modugu, K.P., & Eboigbe, S.U. (2017).Corporate attributes and corporate disclosure level of listed companies in Nigeria: A Post-IFRS Adoption Study. *Journal of Finance and Accounting*, 5(2), 44-52.

Moerman. R.W. (2006). The role of information asymmetry and financial reporting quality and deb t contracting: Evidence from the secondary loan market. *Journal of Accounting & Economics forthcoming*. Retrieved from: http://papcrs.ssrn.com/so13/papers.cfm?abstractπ-876X67 (Downloaded: 11/09/2017)

Mohamad, Z.Z., Salleh, H.M., Ismail, N.D., & Chek, I.T. (2014).Does quality of non-financial information disclosure influence firms' profitability in Malaysia? *International Journal of Academic Research in Accounting, Finance and Management Sciences,4*(4), 297-306.

Mohammed, D.U& Abubakar, Z.A (2014).The Nexus between Corporate Social Responsibility and Financial Performance in Nigeria Research Journal of Finance and Accounting, 5(10), 131-137

Mouritsen, J., & Larsen, H. (2001) Intellectual capital and the 'capable firm': Narrating, visualising and numbering for managing knowledge. *Accounting, Organisations and Society,* 26(7), 735-762.

Mousa, G. A., & Hassan, N. T. (2015).Legitimacy theory and environmental practices: Short Notes. *International Journal of Business and Statistical Analysis2*(1).

Muhamad, R., Shahimi, S., Yahya, Y., & Mahzan, N (2009). Disclosure quality on governance issues in annual reports of Malaysian plcs. *International Business Research, 2(*4),62-72

Nassreddine, G. (2016). Determinants of financial information disclosure: A visualization test by cognitive mapping technique. *Journal of Economics, Finance and Administrative Science, 21*(2) 8–13.

Neysi, S. A., Mazraeh, S., & Mousavi, Z. (2012). The importance of intellectual capital disclosure. *International Journal of Business and Social Science, 3*(15).

Nobes, C.W., & Stadler, C. (2014). The qualitative characteristics of financial information, and managers' accounting decisions: Evidence from IFRS policy changes. *Department of Accounting and Finance, Lancaster University Management School Lancaster, Lancashire, LA1 4YX, UK.*

Nataša ,s .,Ana, B and Marina, S.(2017) Logistic regression modelling: procedures and pitfalls in developing and interpreting prediction models. Croatian Operational Research Review,631-652

Nyahas, S. L. (2018). Stakeholders influence on voluntary disclosure practices by listed companies in Nigeria: An investigation of managers' perception. *International Journal of Law and Management, 60*(2), 267-283.

Nyahas, S. (2018). Stakeholders influence on voluntary disclosure practices by listed companies in Nigeria: An investigation of managers' perception", *International Journal of Law and Management, Vol. 60 Issue: 2, pp.267-283,* https://doi.org/10.1108/IJLMA-05-2017-0110

O'Donavan, G. (2000). Legitimacy theory as an explanation for corporate environmental disclosures. *Victoria University of Techno*.

Ofoegbu, G., & Okoye, E. (2006). The relevance of accounting and auditing Standards in corporate financial reporting in Nigeria: Emphasis on compliance. *The Nigerian Accountant, 39*(4), 45-53.

Okoye, M., Ebubechukkwu, J. & Agweda, F,(2016) Effect of Non-Disclosure of Environment Cost on the Performance of Selected Firm Listed on Nigeria (November 8, 2016). Chapter 43 in Managing Diversification for Sustainable Development in Sub-Saharan Africa: Proceedings of 2016 International Conference of the Faculty of Management Sciences, Nnamdi Azikiwe University, Awka, 8th-10th November, 2016. Available at SSRN: https://ssrn.com/abstract=3039452.

Okike, E. N. M. (2000). Extension of information in accounting reports: An investigation. *Nigerian Financial Review, 3*(2).

Okpala, A. N. (2012).Adoption of IFRS and financial statements effects: The perceived implications on FDI and Nigeria economy. *Australian Journal of Business and Management Research, 2*(5), 76-83.

Olatunji, W. R. (2013). Communication and social change: A case for cause-related advertising in Nigeria. *Covenant Journal of Communication. 1*(1), 27-42.

Oliveira, L., Rodrigues, L.L., & Craig, R. (2011). Firm-specific determinants of intangibles reporting: Evidence from the Portuguese stock market. *Journal of Human Resource Costing and Accounting*, *10*(1), 11–33.

Oluwagbemiga, O.E. (2014). The use of voluntary disclosure in determining the quality of financial statements: evidence from the Nigeria listed companies. *Serbian Journal of Management 9*(2),263 – 280.

Omoye, A.S. (2013). Determinants of intangibles assets disclosure in annual report: Evidence from Nigerian listed companies. *International Journal of Asian Social Science,3*(5), 1152-1165.

Onoja, A., & Agada, G. O. (2015).Voluntary risk disclosure in corporate annual reports: An empirical review. *Research Journal of Finance and Accounting, 6*(17).

Oseni, M. (2013).Application and challenges of IFRS in Nigeria.*Arabian journal of Business and Management Review,* 3(2), 72-79.

Osisioma, B.C. (2001). Fine tuning corporate reporting task for accountants, *Journal ofthe Certified National Accountants*, *9*(2), 40−55.

Oti, P.A., & Mbu-Ogar, G.B. (2018). Analysis of environmental and social disclosure and financial performance of selected quoted oil and gas companies in Nigeria (2012-2016). *Journal of Accounting and Financial Management, 4*(2), 1-12.

Owolabi, F., Akinwumi, T., Adetula, D., & Uwuigbe, U. (2016).Assessment of sustainability reporting in Nigerian industrial goods sector.3rd International Conference on African Development Issues. Covenant University Press, 383-386.

Owusu-Ansah, S. (2013). The Impact of corporate attributes on the extent of mandatory disclosure and reporting by listed companies in Zimbabwe. *The International Journal of Accounting*, 33, 605–631

Oyerogba, E. O. (2014). The use of voluntary disclosure in determining the quality of financial statements: Evidence from the Nigeria listed companies. *Serbian Journal of Management, 9*(2), 263 - 280

Padilla, A. (2002). Can agency theory justify the regulation of insider trading?.*Quarterly Journal of Austrian Economics*, *5*(1) 3–38.

Pandey, I. M. (2005).*Financial Management,* Vikas Publishing House Pvt Limited.

Ping, L. E. E. S. (2012). Corporate governance and strategic CSR practices influence on credibility of sustainability report. *Universiti Sains Malaysia*.

Pohlman, J. T. & Leitner, D.W. (2003). A comparison of ordinary least square and logistics regression. Ohio *Journal of Science,*103(5),118-125.

Popa, A., Blidi, R., & Bogdan, V. (2009). Transparency and disclosure between theory and practice .A case study of Romania. In *FIKUSZ '09 Symposium for Young Researchers* (pp. 173–183).

Pratten, J. D., & Mashat, A. A. (2009).Corporate social disclosure in Libya. *Social Responsibility Journal*, *5*(3), 311–327.

Prencipe, A. (2004). Proprietary costs and determinants of voluntary segment disclosure: Evidence from Italian listed companies. *European Accounting Review,13*(2), 319-340.

Preston, A. M., Cooper, D. J., Scarbrough, D. P., & Chilton, R. C. (1995). Changes in the code of ethics of the U.S. accounting profession 1917 and 1988: The continual quest for legitimation. *Journal of Accounting, Organizations, and Society*, *20*(6), 507-546.

PricewaterhouseCoopers (2009).*IFRS for small and medium-sized entities*. Pocket Guide. Retrieved from: http://www.pwc.com

Prugsamatz, R. (2010). *Factors that influence organization learning sustainability in non-profit organizations*. *The Learning Organization, 17*(3), 243-267.

Qu, W. (2011).A study of voluntary disclosure by listed companies in China (Ph.D. thesis).*Deakin University, Australia.*

Ragini (2012).Corporate disclosure of intangibles: A comparative study of practices among Indian, US, and Japanese Companies. *Vikalpa,7*(3), 51-72.

Rahim, A., Atan, R., & Amrizah, K. (2011).Intellectual capital reporting in Malaysian technology industry. *Asian Journal of Accounting and Governance*, *59,* 51–59.

Rabiu,s and Mamuda, m.(2017)Ownership Structure and Voluntary Disclosure of Listed Financial Service Companies in Nigeria. *International Journal of Advanced Scientific Research Vol. 2, No.2*

Rajab, B., & Handley-Schachler, M. (2009). Corporate risk disclosure by UK firms: Trends and determinants. *World Review of Entrepreneurship Management and Sustainable Development, 5*(3), 224-243.

Rashidah A.R., Apedzan, K., Lateefat, O.O., & Omneya, A.S. (2013). Risk management disclosure practices of Islamic banks in the MENA region: An empirical analysis. *Middle-East Journal of Scientific Research,15*(1), 152-160.

Redmayne, N. B., Bradbury, M. E., & Cahan, S. F. (2010). The effect of political visibility on audit effort and audit pricing. *Accounting and Finance,* 50(4), 921-939.

Resnick. J.T. (2004). Corporate reputation: managing corporate reputation—applying rigorous measures to a key asset. *Journal of Business Strategy,* 25(6), 30–38.

Reverte, C. (2008). Determinants of corporate social responsibility disclosure ratings by Spanish listed firms. *Journal of Business Ethics,88*(1), 351-366

Roberts, J., McNulty, T., & Stiles, P. (2005). Beyond agency conceptions of the work of the non-executive director: Creating accountability in the boardroom. *British Journal of Management, 16*(1), 5–26.

Roos, I. (2002). Methods of investigating critical incidents: A comparative review. *Journal of Service Research, 4,* 193–204.

Rouf, A., & Harun, A. (2011).Ownership structure and voluntary disclosure in annual reports of Bangladesh. *Pakistan Journal of Commerce & Social Sciences, 5*(1), 129-139.

Rouf, M. A. (2011). An empirical investigation into corporate voluntary disclosure of management's responsibilities in the Bangladeshi listed companies. *ASA University Review, 5*(1), 261-274.

Sadiq, .A.(2015) International Journal of Advanced Scientific Research | *IJASR International Journal of Scientific Research in Social Sciences & Management Studies* | IJSRSSMSISSN Print: 2579-101X | ISSN Online: 2(2), 2579-1928.

Sahay, A. (2004). Environmental repotting by Indian corporations. *Journal of CSR Environmental Management, 11*(1), 12-22.

Said, R & Zainuddin, Y. H & Haron, H. (2009).The relationship between corporate social responsibility disclosure and corporate governance characteristics in Malaysian public listed companies. *Social Responsibility Journal*, 5(2), 212 – 226.

Sani,M. D. (2018). Mandatory social and environmental disclosure: A performance evaluation of listed Nigerian oil and gas companies pre- and post-mandatory disclosure requirements. *Journal of Finance and Accounting*, 6(2), 56-68.

Scaltrito, D. (2016) Voluntary disclosure in Italy: Firm-specific determinants an empirical analysis of Italian listed companies EuroMed Journal of Business, Vol. 11 Issue: 2, pp.272-303, https://doi.org/10.1108/EMJB-07-2015-0032.

Scalyrito, D. (2016). Voluntary disclosure in Italy: Firm-specific determinants an empirical analysis of Italian listed companies", EuroMed Journal of Business, 11(2), 272-303, https://doi.org/10.1108/EMJB-07-2015-0032.

Serrasqueiro, R.M., & Mineiro, T. S. (2018). Corporate risk reporting: Analysis of risk disclosures in the interim reports of public Portuguese non-financial companies. *Accounting and Administration, 63*(2), 1-23.

Shil, N. C., & Paramanik, A. K. (2009).A look into the disclosure improvements for CSR reporting in Bangladesh. *Malaysian Accounting Review, 8*(2), 67–83.

Shiri, M. M., Salehi, M., & Radbon, A. (2016). A Study of Impact of Ownership Structure and Disclosure Quality on Information Asymmetry in Iran. *Vikalpa*, *41*(1), 51–60

Shiri, M., Salehi, M., & Radbon, A. (2016). A Study of Impact of Ownership Structure and Disclosure Quality on Information Asymmetry in Iran. *Vikalpa*, *41*(1), 51–60. https://doi.org/10.1177/0256090915620876

Shleifer, A., & Vishny, R.W. (1997).A survey of corporate governance. *Journal of Finance, 52*(2), 737–783.

Sierra-Garcia, L., Garcia-Benau, M.A., & Bollas-Araya, H.M. (2018).Empirical analysis of non-financial reporting by Spanish Companies. *Admin Science, 8*(29), 1-17.

Soderstrom, N., & Sun, K. (2007). IFRS adoption and accounting quality: A review. *European Accounting Review, 16*(4), 675-702.

Solomon, J.F., Solomon, A., Norton, S.D., & Josef, N.L. (2000).A conceptual framework for corporate risk disclosure emerging from the agenda for corporate governance reforms. *British Accounting Review*, *32*(4), 447–478.

Soltani, B. (2007). *Auditing: An international approach*. Pearson Education-Prentice-Hall

Stanga, K. G. (1976). Disclosure in published annual reports. *International Research Journal of Finance and Economics, Financial Management*, *25*(1), 42–51.

Street, D. L., & Shaughnessy, K. A. (1998). The quest for international accounting harmonization: A review of the standard setting agendas of the IASC, US, UK, Canada, and Australia, 1973–1997. *The International Journal of Accounting, 33*(2), 179–209.

Suchman, J. (1995). Sustainable development: A review of the international development, business and accounting literature. *Accounting Forum*, *25*(2), 128-157.

Sukthomya, D. (2011). The empirical evidence of voluntary disclosure in the annual reports of listed companies: The case of Thailand (Ph.D. thesis). *The University of Nottingham, United Kingdom*.

Sweeney, L., & Coughlan, J. (2008). Do different industries report Corporate Social Responsibility differently? An investigation through the lens of stakeholder theory. *Journal of Marketing Communications, 14*(2), 113–124.

Taliyang, S. (2008). The determinants of intellectual capital disclosure among Malaysian listed companies.

Taposh, K.N. (2002). Evaluation of efficiency of accounting information systems: A study on mobile telecommunication companies in Banglad1esh.*Global Disclosure of Economics and Business, 3*(1), 40-55.

Umoren, A. O. (2009). *Accounting disclosure and corporate attribute* (Unpublished Thesis). Convenant University, Ota, Nigeria.

Uwadia, C. (2012). Is ICT a sine-qua-non to modern University Management? Being an address delivered at 46th edition of the Business meeting of the committee of Registrars of Nigerian Universities (CORNU). May 2nd–

Uyar, A. (2011). Firm characteristics and voluntary disclosure of graphs in annual reports of Turkish Listed Companies. *African Journal of Business Management, 5*(17), 7651−7657.

Vergauwen, P. G. M., & Vanalem, F. I. C. (2005). Annual report: IC disclosure in the Netherlands, France and Germany. *Journal of IC, 6*, 89 – 10.

Vives, X. (2007). Information sharing: Economics and distrust. *Working paper, Barcelona, University of Navarra.*

Vu, K. B. (2012). Determinants of voluntary disclosure for Vietnamese listed companies (Ph.D. thesis). *Curtain University, Australia*.

Wallace, R. S. O., Naser, K. & Mora, A. (1994) The relationship between the comprehensiveness of corporate annual reports and firm specific characteristics in Spain. *Accounting and Business Research*, 25, 41–53.

Wang, J., Hsiung, H., & Ku, W. (2012). Ownership structure and environmental disclosure: Taiwan evidence. *International Research Journal of Finance and Economics, 88*(1), 132- 145.

Watts, R. L., & Zimmerman, J. L. (1986).*Positive accounting theory*. New Jersey: Prentice-Hall

Weir, C., Laing, D., & McKnight, P.J. (2002). Internal and external governance mechanisms: Their impact on the performance of large UK public companies. *Journal of Business Finance and Accounting, 29*, 579-611.

Williams, S. (2001). Is intellectual capital performance and reporting practice related? *Journal of Intellectual Capital*, *2(*3), 192-203.

Wilmshurst, T. D., & Frost, G. R. (2000). Corporate environmental reporting: A test of legitimacy theory. *Accounting, Auditing & Accountability Journal, 13*(1)**,** 10-25.

Wu, J., & Liu, L., & Sulkowski, A. (2010). Environmental disclosure, firm performance, and firm characteristics: An analysis of S&P 100 firms. *Journal of Academy of Business and Economics, 10*(4), 73-83.

Yi, A., & Davey, H. (2010).Intellectual capital disclosure in Chinese (mainland) companies. *Journal of Intellectual Capital, 11*(3), 326–347.

Yi, A., Davey, H., & Eggleton, I.R.C. (2011). Towards a comprehensive theoretical framework for voluntary IC disclosure. *Journal of Intellectual Capital, 12*(4), 571 – 585

Young, D., & Guenther, D. (2002). Financial reporting environments and international capital mobility. *Journal of Accounting Research*, *41*(3), 553-579.

Zarzeski, M. T. (1996). Spontaneous harmonization effects of culture and market forces on accounting disclosure practices. *Accounting Horizons, 10*, 18–37.

APPENDIX I:

Global Reporting Initiative Guideline

S/N	(A) Risk Management Information Disclosure Checklist	S/N	(B) Corporate Social and Environmental Disclosure Information Disclosure Checklist
1.	Risk assessment	1.	Number of employees
2.	Control environment	2.	Employee/labour management
3.	Control activities	3.	Equal opportunity/remuneration for both genders
4.	Information and communication	4.	Retirement benefit
5.	Monitoring	5.	Employment of disable
6.	Operation risk	6.	Employee involvement
7.	Integrity risk	7.	Pension policy
8.	Strategic risk	8.	Occupational health and safety
9.	Information technology risk	9.	Range of emolument of employees
10.	Financial risk	10.	Remuneration policy
11.	Network security risk	11.	Gratuity provision payment of staff
12.	Equity risk	12.	Human and indigenous rights
13.	Market risk	13.	Grievance mechanisms
14.	Credit risk	14.	Product Responsibility and compliance
15.	Reputational risk	15.	Customer health and safety impacts
16.	Legal risk	16.	Local community engagement
17.	Transaction risk	17.	Compliance with environmental laws
18.	Systemic risk	18.	Pollution
19.	Business risk	19.	Waste management
20.	Credit risk	20.	Development programmes
21.	Liquidity risk		
22.	Credit management risk		
23.	Property risk		

S/N	(C) Intellectual Capital Information Disclosure Checklist		(D) Corporate Governance Disclosure Checklist
1.	Discovery and learning	1.	Disclosure information on board members' qualifications and experience
2.	Research and development	2.	Disclosure information on senior managers' qualifications and experience
3.	Management processes	3.	Classification of managers as executive or outsider
4.	Workforce training	4.	Picture of all senior managers/board of members
5.	Infrastructure assets	5.	Information about changes in board members
6.	Spillover utilisation	6.	List of senior managers (not on the board of members)/senior management structure
7.	Business collaboration	7.	Details of senior managers and board of members' remuneration
8.	Customer integration	8.	A review of shareholders by type
9.	Supplier integration	9.	Number of board of director members' meetings held and data
10.	Patent, royalty and trademark	10.	Number of shares held by managers
11.	Licensing agreement	11.	Statement of percentage of total shareholders of 20 largest shareholders
12.	Technological and internet activities	12.	Managers' engagement/directorship of other companies
13.	Commercialisation	13.	Board committee terms of reference
14.	Marketing innovations	14.	List of audit committee
15.	Brand value	15.	Remuneration and compensation
16.	Government approval	16.	Board technical, risk management and compliance committee
17.	First mover	17.	Number of audit committee members' meetings held in a financial year and data
18.	Online trade		
19.	Major internet alliance		
20.	Customer choice and value		
21.	Innovation revenue		
22.	Patent and know-how royalties		

	(C) **Intellectual Capital Information Disclosure Checklist (continues)**		(D) **Corporate Governance Disclosure Checklist (continues)**
23	Product pipeline		
24.	Expected efficiency		
26.	Expected breakeven		
27.	Online management		
	ECONOMIC DISCLOSURE		
1	Risk and Opportunities posed by climate change		
2	Const of actions taken to manage risk		
3	Retirement plan		
4	Tax relief and tax credits		
5	Royalties holiday		
6	Financial assistance from export credit age		
7	Financial incentives		
8	Government presence in shareholding		
9	Minimum wage rules		
10	Presence of local minimum wage		
11	Percentage of senior management		
12	Report the extent of development		
13	Direct and indirect economic impacts		

Sources: As compiled from GRI-G4 (2015) and CBN Disclosure guideline (2016)

APPENDIX-II

Financial Data of Consumer and Industrial Goods Companies Listed on Nigerian Stock Exchange (NSE) 2012-2017

Names of listed companies	Total shares	directors' shares	Revenue	equity	gross profit	EBITA	debt/loan	TOTAL ASSET
Nigerian Bweries Plc-2012	7562633386	14694397	252674213	253633629	125452144	63932031	45000000	253633629
Nigerian Bweries Plc-2013	7562704432	13191640	268613518	252759633	136477042	69171377	9000000	252759633
Nigerian Bweries Plc-2014	7562704432	725732	266372475	349676784	135584179	66860899	2467000	349676784
Nigerian Bweries Plc-2015	7899989937	1638340	293905792	356707123	142461902	62269368	0	356707123
Nigerian Bweries Plc-2016	7929100888	1434299	313743147	367639915	135524619	52908411	17000000	367639915
Nigerian Bweries Plc-2017	7964580401	1284299	344562517	382726540	143549160	57126310	8000000	382726540
INT'L BREWERIES PLC-2012	3262526430	121716126	17388632	23036762	7701230	3444197	10107420	23036762
INT'L BREWERIES PLC-2013	3262526430	128296575	17388632	23036762	7701230	3444197	7748763	23036762
INT'L BREWERIES PLC-2014	3294249280	128296575	18493907	24370540	8902634	5011222	6068871	24370540
INT'L BREWERIES PLC-2015	3294249280	116495860	20649295	30171590	9061478	4635261	9515292	30171590
INT'L BREWERIES PLC-2016	3294249280	109505154	23269364	33482106	10708935	5141112	938480	33482106

INT'L BREWERIES PLC-2017	3294249280	109505154	32711218	44962735	15164459	8084425	1365220	44962735
NESTLE NIGERIA PLC-2012	792656252	3675050	116707394	88963218	50168632	25989569	46017189	88963218
NESTLE NIGERIA PLC-2013	792656252	3675050	133084076	108207480	56785929	27832980	56485134	108207480
NESTLE NIGERIA PLC-2014	792656252	1137550	143328982	106062067	61229931	29200221	18385876	106062067
NESTLE NIGERIA PLC-2015	792656252	94855000	151271526	119215053	67345569	33747243	12530361	119215053
NESTLE NIGERIA PLC-2016	792656252	57865000	181910977	169585932	75327592	38213337	10384341	169585932
NESTLE NIGERIA PLC-2017	792656252	56255000	244151411	146804128	100871151	55698373	9564664	146804128
UNILEVER NIGERIA PLC-2012	3783296250	6778209	55547798	36497624	21645661	8894882	19312035	36497624
UNILEVER NIGERIA PLC-2013	3783296250	6477779	60004119	43754114	22450008	7880539	26690176	43754114
UNILEVER NIGERIA PLC-2014	3783296250	6477779	55754309	45736255	20170293	4614744	31125307	45736255
UNILEVER NIGERIA PLC-2015	3783296250	5777779	59221748	50172484	21047500	4639690	34505057	50172484

UNILEVER NIGERIA PLC-2016	3783296250	1055976	69777061	72491309	20296041	5805045	52977778	72491309
UNILEVER NIGERIA PLC-2017	5745005000	2633807	90771306	121084365	28943264	12949724	33863348	121084365
DANGOTE SUGAR PLC-2012	1.2E+10	664265106	106868054	82956678	23228510	16331679	27112284	82956678
DANGOTE SUGAR PLC-2013	1.2E+10	664419093	102467361	87112182	26969898	20099517	21508166	87112182
DANGOTE SUGAR PLC-2014	1.2E+10	664419093	94103677	97287804	21734602	17232539	25609260	97287804
DANGOTE SUGAR PLC-2015	1.2E+10	665699093	100092221	106671333	22835147	18784857	27031108	106671333
DANGOTE SUGAR PLC-2016	1.2E+10	665699093	167409161	175593979	25484274	20314796	85521443	175593979
DANGOTE SUGAR PLC-2017	1.2E+10	665699093	198120639	196064664	52651356	47014188	71913340	196064664
GUINNESS NIG PLC.-2012	1474925519	1127169	126288184	102534172	56199939	22861423	37867968	102534172
GUINNESS NIG PLC.-2013	1495567298	1125505	122463538	121060621	56078434	20933616	51534181	121060621
GUINNESS NIG PLC.-2014	1505888000	1125505	109202120	132328273	51333214	16123378	67567989	132328273
GUINNESS NIG PLC.-2015	1505888000	1123361	118495882	122246632	54943920	15667379	52172389	122246632

GUINNESS NIG PLC.-2016	1505888000	1123361	101973030	136992444	41810413	4415623	76697969	136992444
GUINNESS NIG PLC.-2017	1505888000	1355361	125919817	146038216	48315304	10186330	84975417	146038216
FLOUR MILLS NIG. PLC. -2012	2385684716	10951383	183402710	172539746	20688363	14255063	96936241	172539746
FLOUR MILLS NIG. PLC. -2013	2385684716	10951383	225629747	223889728	23183983	13695056	112627686	223889728
FLOUR MILLS NIG. PLC. -2014	2385684716	11028476	245701366	220087648	29279322	17268732	103246790	220087648
FLOUR MILLS NIG. PLC. -2015	2624253380	11978253	229777869	233296607	24943523	6806318	115120983	233296607
FLOUR MILLS NIG. PLC. -2016	2624253380	11978253	278353341	348421004	36261461	20790412	228318891	348421004
FLOUR MILLS NIG. PLC. -2017	4100395606	12328253	375225284	343933157	50306446	29948911	219003050	343933157
P Z CUSSONS NIGERIA PLC.-2012	3970477046	6830798	72154601	49149109	9292109	4391813	14230169	49149109
P Z CUSSONS NIGERIA PLC.-2013	3970477046	6830798	71343088	50243854	12839059	7156292	13621473	50243854
P Z CUSSONS NIGERIA PLC.-2014	3970477045	1357676	72905679	51694166	11574882	2085150	19609345	51694166
P Z CUSSONS NIGERIA PLC.-2015	3970477045	4784556	73126070	48106661	13241396	2766807	17129501	48106661
P Z CUSSONS NIGERIA PLC.-2016	3970477045	4722050	69527537	58279602	12758615	6133051	20053465	58279602
P Z CUSSONS	3970477045	4872050	79630111	73039610	17952518	13215356	34014212	73039610

NIGERIA PLC.-2017								
NASCON ALLIED IND. PLC.-2012	4000000000	90495853	13414185	10689544	5090994	4036336	1684813	10689544
NASCON ALLIED IND. PLC.-2013	4000000000	126495853	10837261	11431167	4593106	4038405	1291365	11431167
NASCON ALLIED IND. PLC.-2014	2649438378	118975238	11250544	12555885	3785761	3551299	4630833	12555885
NASCON ALLIED IND. PLC.-2015	2649438378	118975238	16178197	16294826	4359118	3968435	7460908	16294826
NASCON ALLIED IND. PLC.-2016	2649438378	8928673	18291792	24603267	5917694	4833013	14291298	24603267
NASCON ALLIED IND. PLC.-2017	2649438378	7617653	27064325	30123247	9994015	9354478	14668525	30123247
DANGOTE FLOUR MILLS PLC.-2012	5000000000	41106448	41472599	77449018	2162325	-3571053	10433756	77449018
DANGOTE FLOUR MILLS PLC.-2013	5000000000	41106448	23079590	59800099	350603	-3313880	27830235	59800099
DANGOTE FLOUR MILLS PLC.-2014	5000000000	41106448	31704340	53563743	2383301	-1749077	32824632	53563743
DANGOTE FLOUR MILLS PLC.-2015	5000000000	41106000	36094021	46344429	3004555	-2066854	44720609	46344429

DANGOTE FLOUR MILLS PLC.-2016	5000000000	41106000	83671078	76605288	25550506	18666787	45576346	76605288
DANGOTE FLOUR MILLS PLC.-2017	5000000000	41106000	108086289	129341940	26937161	18675961	80812560	129341940
CADBURY NIGERIA PLC.-2012	3129188160	17080000	31231751	39811415	11476476	4594742	14289840	39811415
CADBURY NIGERIA PLC.-2013	3130374238	16730000	35760753	43172624	13100096	5720687	13541296	43172624
CADBURY NIGERIA PLC.-2014	1878201962	9648000	30518586	28811286	8383757	2385891	11742702	28811286
CADBURY NIGERIA PLC.-2015	1878201962	9648000	27825194	28417005	8930227	1577412	11104368	28417005
CADBURY NIGERIA PLC.-2016	1878201962	9648000	29979410	28409000	6860403	-732853	12734136	28409000
CADBURY NIGERIA PLC.-2017	1878201962	9648000	33079446	28423122	7435134	711365	12460098	28423122
CHAMPION BREW. PLC.-2012	9000000	500000	1785345	6799200	446382	-1222013	900163.6	6799200
CHAMPION BREW. PLC.-2013	40000000	501000	2233259	9137716	25935	-543902	1251870.6	9137716
CHAMPION BREW. PLC.-2014	90000000	1001000	3302383	9592381	639932	25511	2414360	9592381

CHAMPION BREW. PLC.-2015	7712221	508110	3501845	10329160	999698	206769	1690655	10329160
CHAMPION BREW. PLC.-2016	7829496	508110	3864943	9961240	1067053	617634	1281032	9961240
CHAMPION BREW. PLC.-2017	7829496	508110	4777313	10088861	1386621	595189	1111826	10088861
DANGOTE CEMENT PLC.-2012	1.7041E+10	31336652	285635278	624000619	179309258	148104709	187594897	624000619
DANGOTE CEMENT PLC.-2013	1.7041E+10	31336652	371551567	820477742	243614298	201079677	223799846	820477742
DANGOTE CEMENT PLC.-2014	1.7041E+10	34116652	371534000	963441000	242950000	190908000	73785000	963441000
DANGOTE CEMENT PLC.-2015	1.7041E+10	36116652	389215000	1.124E+09	258797000	193698000	104026000	1124475000
DANGOTE CEMENT PLC.-2016	1.7041E+10	15529031974	426129000	1.475E+09	248000000	183730000	178567000	1475441000
DANGOTE CEMENT PLC.-2017	1.7041E+10	14529216054	552364000	1.611E+09	393770000	305902000	142737000	1611087000
LAFARGE AFRICA PLC.-2012	2239453125	1926218	21825925	67325232	8325460	5473736	7503306	67325232
LAFARGE AFRICA PLC.-2013	2239453125	1926218	21694657	67423536	6228460	2844864	7378850	67423536

LAFARGE AFRICA PLC.-2014	4554902014	2275606	105848657	343627558	43985941	32352996	41893798	343627558
LAFARGE AFRICA PLC.-2015	4554902014	2610440	114558245	381272953	44361736	30906793	49685032	381272953
LAFARGE AFRICA PLC.-2016	4554902014	2610440	87198416	537598212	22871640	10848224	175371210	537598212
LAFARGE AFRICA PLC.-2017	4554902014	2610440	177170362	616169940	53039550	33205693	340593170	616169940
BETA GLASS PLC.-2012	499972000	275185	12932549	22456567	3120701	1868652	6260220	22456567
BETA GLASS PLC.-2013	499972000	275185	14096123	27166481	3225915	1795956	9371117	27166481
BETA GLASS PLC.-2014	499972000	275185	16632879	26928387	4448652	2938335	6315973	26928387
BETA GLASS PLC.-2015	499972000	152911	15953224	27171069	3705877	2349586	4537908	27171069
BETA GLASS PLC.-2016	499972000	152911	19091192	33184130	3945815	2957532	5522702	33184130
BETA GLASS PLC.-2017	499972000	52911	22186258	38211613	5247863	4374837	6045289	38211613
CAP PLC .-2012	560000000	4093720	5231330	2875802	2459796	1521610	934130	2875802
CAP PLC .-2013	700000000	4350181	6195824	3035012	3155104	1961036	709325	3035012
CAP PLC .-2014	700000000	4350181	6987604	3080881	3597686	2283596	726071	3080881
CAP PLC .-2015	700000000	4350181	7056876	3409300	3587965	2341165	550672	3409300
CAP PLC .-2016	700000000	4350181	6813984	4915999	3312483	2121822	1333362	4915999
CAP PLC .-2017	700000000	4350181	7113950	5013990	3249965	1975676	1208465	5013990
CUTIX PLC.-	880661013	229618206	1929477	1073865	535656	271557	323182	1073865

2012								
CUTIX PLC.-2013	880661013	229618206	1929477	1073865	553656	271557	323182	1073865
CUTIX PLC.-2014	880661013	228964424	2234959	1744670	651535	316752	893993	1744670
CUTIX PLC.-2015	880661013	393962946	2358412	1968814	639008	313818	1053140	1968814
CUTIX PLC.-2016	880661013	348920193	2835862	1891720	733353	415103	774427	1891720
CUTIX PLC.-2017	880661013	45986651	3675712	2329792	1005646	491729	1053548	2329792
AUSTIN LAZ & CO. PLC-2012	1079860	539930	686911	2240441	181101	102454	12432	2240441
AUSTIN LAZ & CO. PLC-2013	1079860	539930	667332	2379017	145485	40342	37905	2379017
AUSTIN LAZ & CO. PLC-2014	582864351	312728842.2	677121.5	2309729	163293	71398	25168.5	2309729
AUSTIN LAZ & CO. PLC-2015	698573333	374842666.7	468652.88	2597263.8	109255	32073	88324.625	2597263.75
AUSTIN LAZ & CO. PLC-2016	1047860000	562264000	217428	1760775	9167	-105759	176111	1760775
AUSTIN LAZ & CO. PLC-2017	1047860000	562264000	312730	1699093	119075	19857	114114	1699093
Port. Paints & Prod. Nig. PLC.-2012	793415628	258837400	2865582	2386024	1263294	-112515	1251232	2386024
Port. Paints & Prod. Nig. PLC.-2013	793415628	258837400	1135389	2427423	596649	122127	1244278	2427423
Port. Paints & Prod. Nig. PLC.-2014	793415628	258837400	2798165	2277558	1305823	304496	1127799	2277558

Port. Paints & Prod. Nig. PLC.- 2015	793415628	258837400	2168480	1899281	897658	-137105	1111062	1899281
Port. Paints & Prod. Nig PLC.- 2016	793415628	238877	1844050	1754322	683734	111985	984968	1754322
Port. Paints & Prod. Nig. PLC.- 2017	793415628	776347	2316289	2035902	696020	150689	541497	2035902
BERGER PAINTS PLC - 2012	217367585	6057158	2513664	2848115	977052	284464	559440	2848115
BERGER PAINTS PLC - 2013	217367585	6057158	2708448	3536641	1068562	356096	573102	3536641
BERGER PAINTS PLC - 2014	289823447	6057158	3082930	3640145	1346870	266217	534456	3640145
BERGER PAINTS PLC - 2015	289823447	6533864	3022264	3895870	1378568	470720	540491	3895870
BERGER PAINTS PLC - 2016	289823447	18419574	2602824	4102265	1111631	278317	807015	4102265
BERGER PAINTS PLC - 2017	289823447	18419574	3092445	4311424	1273077	339524	1011652	4311424
PREMIER PAINTS PLC.- 2012	123000000	17048850	257886	291702	70378	-43035	176696	291702
PREMIER PAINTS PLC.- 2013	123000000	17048850	279977	285772	92660	-16002	205997	285772

PREMIER PAINTS PLC.-2014	123000000	17048850	170635	341289	56704	-21585	264744	341289
PREMIER PAINTS PLC.-2015	123000000	17048850	236439	335397	72883	-30719	276013	335397
PREMIER PAINTS PLC.-2016	123000000	80048850	281841	320042	92830	-6850	276399	320042
PREMIER PAINTS PLC.-2017	123000000	80048850	190510	606523	49245	-44234	317300	606523
First Aluminium NIG. PLC.-2012	2110359242	23768233	8639181	8770956	149029	-651801	3635537	8770956
First Aluminium NIG. PLC.-2013	2110359242	21894433	8390463	8482712	716416	425786	3277493	8482712
First Aluminium NIG. PLC.-2014	2110359242	21894433	8901618	8389910	740555	437233	3147256	8389910
First Aluminium NIG. PLC.-2015	2110359242	20338300	10478233	8152848	726922	450309	2819113	8152848
First Aluminium NIG. PLC.-2016	2110359242	836660	9154586	9245829	1048048	851542	3784917	9245829
First Aluminium NIG. PLC.-2017	2110359242	836660	7878319	9524990	1271765	1079625	3923145	9524990

ROA	GPM	Ownership structure	Board size	Leverage	socio-environmental	corporate governance	intellectual capital	socio-economic	Risk Management
0.2521	0.4965	0.0019	13	0.1774	undisclosed	undisclosed	undisclosed	undisclose	undisclosed
0.2737	0.5081	0.0017	13	0.0356	disclosed	disclosed	disclosed	disclosed	disclosed
0.1912	0.5090	0.0001	16	0.0071	disclosed	disclosed	disclosed	disclosed	disclosed
0.1746	0.4847	0.0002	16	0.0000	disclosed	disclosed	disclosed	disclosed	disclosed
0.1439	0.4320	0.0002	17	0.0462	disclosed	disclosed	disclosed	disclosed	disclosed
0.1493	0.4166	0.0002	17	0.0209	disclosed	disclosed	disclosed	disclosed	disclosed
0.1495	0.4429	0.0373	9	0.4388	undisclosed	undisclosed	undisclosed	undisclose	undisclosed
0.1495	0.4429	0.0393	9	0.3364	disclosed	disclosed	disclosed	disclosed	disclosed
0.2056	0.4814	0.0389	9	0.2490	disclosed	disclosed	undisclosed	undisclosed	disclosed
0.1536	0.4388	0.0354	9	0.3154	disclosed	disclosed	disclosed	disclosed	disclosed
0.1535	0.4602	0.0332	8	0.0280	undisclosed	disclosed	undisclosed	undisclosed	undisclosed
0.1798	0.4636	0.0332	10	0.0304	disclosed	disclosed	disclosed	disclosed	disclosed
0.2921	0.4299	0.0046	8	0.5173	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
0.2572	0.4267	0.0046	8	0.5220	disclosed	disclosed	disclosed	disclosed	disclosed
0.2753	0.4272-	0.0014	8	0.1734	disclosed	disclosed	disclosed	disclosed	undisclosed
0.2831	0.4452	0.1197	8	0.1051	disclosed	disclosed	disclosed	disclosed	disclosed
0.2253	0.4141	0.0730	8	0.0612	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
0.3794	0.4131	0.0710	8	0.0652	disclosed	disclosed	disclosed	disclosed	disclosed
0.2437	0.3897	0.0018	8	0.5291	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
0.1801	0.3741	0.0017	8	0.6100	disclosed	disclosed	disclosed	disclosed	disclosed
0.1009	0.3618	0.0017	9	0.6805	undisclosed	disclosed	disclosed	disclosed	disclosed
0.0925	0.3554	0.0015	9	0.6877	disclosed	disclosed	disclosed	undisclosed	undisclosed
0.0801	0.2909	0.0199	10	0.7308	disclosed	undisclosed	undisclosed	disclosed	disclosed
0.1069	0.3189	0.0778	10	0.2797	disclosed	disclosed	disclosed	disclosed	disclosed
0.1969	0.2174	0.0554	9	0.3268	undisclosed	undisclosed	undisclosed	disclosed	disclosed
0.2307	0.2632	0.0554	10	0.2469	disclosed	disclosed	disclosed	disclosed	disclosed

0.1771	0.2310	0.0554	10	0.2632	disclosed	disclosed	disclosed	disclosed	disclosed
0.1761	0.2281	0.0555	9	0.2534	disclosed	disclosed	disclosed	disclosed	disclosed
0.1157	0.1522	0.0555	9	0.4870	disclosed	disclosed	disclosed	disclosed	disclosed
0.2398	0.2658	0.0555	9	0.3668	disclosed	disclosed	disclosed	disclosed	disclosed
0.2230	0.4450	0.0008	13	0.3693	disclosed	disclosed	disclosed	disclosed	disclosed
0.1729	0.4579	0.0007	12	0.4257	disclosed	disclosed	disclosed	disclosed	disclosed
0.1218	0.4701	0.0007	12	0.5106	disclosed	disclosed	disclosed	disclosed	disclosed
0.1282	0.4637	0.0007	13	0.4268	disclosed	disclosed	disclosed	disclosed	disclosed
0.0322	0.4100	0.0007	13	0.5599	disclosed	disclosed	disclosed	disclosed	disclosed
0.0698	0.3837	0.0009	12	0.5819	disclosed	disclosed	disclosed	disclosed	disclosed
0.0826	0.1128	0.0046	10	0.5618	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
0.0612	0.1028	0.0046	11	0.5030	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
0.0785	0.1192	0.0046	11	0.4691	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
0.0292	0.1086	0.0046	11	0.4935	disclosed	disclosed	disclosed	disclosed	disclosed
0.0597	0.1303	0.0046	14	0.6553	disclosed	disclosed	disclosed	disclosed	disclosed
0.0871	0.1341	0.0030	14	0.6368	disclosed	disclosed	disclosed	disclosed	disclosed
0.0894	0.1288	0.0017	12	0.2895	undisclosed	undisclosed	undisclosed	disclosed	disclosed
0.1424	0.1800	0.0017	12	0.2711	disclosed	disclosed	disclosed	disclosed	disclosed
0.0403	0.1588	0.0003	10	0.3793	disclosed	disclosed	disclosed	disclosed	disclosed
0.0575	0.1811	0.0012	10	0.3561	disclosed	disclosed	disclosed	disclosed	disclosed
0.1052	0.1835	0.0012	11	0.3441	disclosed	disclosed	disclosed	disclosed	disclosed
0.1809	0.2254	0.0012	9	0.4657	disclosed	disclosed	disclosed	disclosed	disclosed
0.3776	0.3795	0.0226	9	0.1576	disclosed	disclosed	disclosed	undisclosed	undisclosed
0.3533	0.4238	0.0316	9	0.1130	disclosed	undisclosed	undisclosed	disclosed	disclosed
0.2828	0.3365	0.0449	10	0.3688	disclosed	disclosed	disclosed	undisclosed	undisclosed
0.2435	0.2694	0.0449	10	0.4579	disclosed	disclosed	disclosed	disclosed	disclosed
0.1964	0.3235	0.0034	10	0.5809	undisclosed	disclosed	undisclosed	undisclosed	undisclosed

0.3105	0.3693	0.0029	10	0.4870	disclosed	disclosed	disclosed	disclosed	disclosed
-0.0461	0.0521	0.0082	12	0.1347	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
-0.0554	0.0152	0.0082	11	0.4654	undisclosed	undisclosed	undisclosed	disclosed	disclosed
-0.0327	0.0752	0.0082	11	0.6128	disclosed	disclosed	disclosed	undisclosed	undisclosed
-0.0446	0.0832	0.0082	12	0.9650	disclosed	disclosed	disclosed	disclosed	disclosed
0.2437	0.3054	0.0082	10	0.5950	disclosed	disclosed	disclosed	undisclosed	undisclosed
0.1444	0.2492	0.0082	8	0.6248	disclosed	disclosed	disclosed	disclosed	disclosed
0.1154	0.3675	0.0055	9	0.3589	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
0.1325	0.3663	0.0053	7	0.3137	disclosed	disclosed	disclosed	disclosed	disclosed
0.0828	0.2747	0.0051	8	0.4076	disclosed	disclosed	disclosed	disclosed	disclosed
0.0555	0.3209	0.0051	7	0.3908	disclosed	disclosed	disclosed	disclosed	disclosed
-0.0258	0.2288	0.0051	8	0.4482	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
0.0250	0.2248	0.0051	7	0.4384	disclosed	disclosed	disclosed	disclosed	disclosed
-0.1797	0.2500	0.0556	10	0.1324	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
-0.0595	0.0116	0.0125	9	0.1370	disclosed	disclosed	disclosed	disclosed	disclosed
0.0027	0.1938	0.0111	9	0.2517	disclosed	disclosed	disclosed	disclosed	disclosed
0.0200	0.2855	0.0659	11	0.1637	disclosed	disclosed	disclosed	disclosed	disclosed
0.0620	0.2761	0.0649	11	0.1286	disclosed	disclosed	disclosed	undisclosed	undisclosed
0.0590	0.2903	0.0649	11	0.1102	disclosed	disclosed	disclosed	disclosed	disclosed
0.2373	0.6278	0.0018	9	0.3006	disclosed	disclosed	disclosed	disclosed	disclosed
0.2451	0.6557	0.0018	9	0.2728	disclosed	disclosed	disclosed	disclosed	disclosed
0.1982	0.6539	0.0020	12	0.0766	disclosed	disclosed	disclosed	disclosed	disclosed

0.1723	0.6649	0.0021	12	0.0925	disclosed	disclosed	disclosed	disclosed	disclosed
0.1245	0.5820	0.9113	14	0.1210	disclosed	disclosed	disclosed	disclosed	disclosed
0.1899	0.7129	0.8526	14	0.0886	disclosed	disclosed	disclosed	disclosed	disclosed
0.0813	0.3814	0.0009	12	0.1114	disclosed	disclosed	disclosed	disclosed	disclosed
0.0422	0.2871	0.0009	12	0.1094	disclosed	disclosed	disclosed	disclosed	disclosed
0.0942	0.4156	0.0005	17	0.1219	disclosed	disclosed	disclosed	disclosed	disclosed
0.0811	0.3872	0.0006	17	0.1303	disclosed	disclosed	disclosed	disclosed	disclosed
0.0202	0.2623	0.0006	17	0.3262	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
0.0539	0.2994	0.0006	17	0.5528	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
0.0832	0.2413	0.0006	9	0.2788	disclosed	undisclosed	undisclosed	undisclosed	undisclosed
0.0661	0.2289	0.0006	9	0.3450	disclosed	disclosed	disclosed	disclosed	disclosed
0.1091	0.2675	0.0006	9	0.2345	disclosed	disclosed	undisclosed	disclosed	disclosed
0.0865	0.2323	0.0003	11	0.1670	disclosed	disclosed	disclosed	disclosed	disclosed
0.0891	0.2067	0.0003	8	0.1664	disclosed	undisclosed	undisclosed	undisclosed	undisclosed
0.1145	0.2365	0.0001	10	0.1582	disclosed	disclosed	disclosed	disclosed	disclosed
0.5291	0.4702	0.0073	7	0.3248	undisclosed	disclosed	undisclosed	disclosed	disclosed
0.6461	0.5092	0.0062	6	0.2337	disclosed	disclosed	disclosed	disclosed	disclosed
0.7412	0.5149	0.0062	6	0.2357	undisclosed	disclosed	undisclosed	disclosed	disclosed
0.6867	0.5084	0.0062	6	0.1615	disclosed	disclosed	disclosed	disclosed	disclosed
0.4316	0.4861	0.0062	7	0.2712	disclosed	disclosed	undisclosed	disclosed	disclosed
0.3940	0.4568	0.0062	7	0.2410	disclosed	disclosed	disclosed	disclosed	disclosed
0.2529	0.2776	0.2607	7	0.3010	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
0.2529	0.2869	0.2607	7	0.3010	disclosed	disclosed	disclosed	undisclosed	disclosed
0.1816	0.2915	0.2600	7	0.5124	disclosed	disclosed	disclosed	undisclosed	disclosed
0.1594	0.2709	0.4473	6	0.5349	undisclosed	undisclosed	undisclosed	disclosed	disclosed
0.2194	0.2586	0.3962	6	0.4094	disclosed	disclosed	disclosed	undisclosed	undisclosed
0.2111	0.2736	0.0522	6	0.4522	disclosed	disclosed	disclosed	disclosed	disclosed

0.0457	0.2636	0.5000	6	0.0055	undisclosed	disclosed	undisclosed	disclosed	disclosed
0.0170	0.2180	0.5000	6	0.0159	undisclosed	disclosed	undisclosed	disclosed	disclosed
0.0309	0.2412	0.5365	6	0.0109	undisclosed	disclosed	undisclosed	disclosed	disclosed
0.0123	0.2331	0.5366	6	0.0340	undisclosed	disclosed	undisclosed	disclosed	disclosed
-0.0601	0.0422	0.5366	6	0.1000	undisclosed	disclosed	undisclosed	disclosed	disclosed
0.0117	0.3808	0.5366	6	0.0672	undisclosed	disclosed	undisclosed	disclosed	disclosed
-0.0472	0.4409	0.3262	5	0.5244	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
0.0503	0.5255	0.3262	6	0.5126	undisclosed	disclosed	undisclosed	disclosed	undisclosed
0.1337	0.4667	0.3262	5	0.4952	undisclosed	disclosed	undisclosed	undisclosed	undisclosed
-0.0722	0.4140	0.3262	5	0.5850	undisclosed	undisclosed	undisclosed	disclosed	undisclosed
0.0638	0.3708	0.0003	7	0.5615	undisclosed	disclosed	undisclosed	undisclosed	undisclosed
0.0740	0.3005	0.0010	6	0.2660	disclosed	disclosed	disclosed	disclosed	disclosed
0.0999	0.3887	0.0279	12	0.1964	undisclosed	disclosed	undisclosed	undisclosed	undisclosed
0.1007	0.3945	0.0279	12	0.1620	disclosed	disclosed	disclosed	disclosed	disclosed
0.0731	0.4369	0.0209	12	0.1468	disclosed	disclosed	disclosed	disclosed	disclosed
0.1208	0.4561	0.0225	12	0.1387	undisclosed	disclosed	undisclosed	disclosed	undisclosed
0.0678	0.4271	0.0636	10	0.1967	disclosed	disclosed	undisclosed	undisclosed	disclosed
0.0787	0.4117	0.0636	10	0.2346	disclosed	disclosed	disclosed	disclosed	disclosed
-0.1475	0.2729	0.1386	8	0.6057	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
-0.0560	0.3310	0.1386	9	0.7208	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
-0.0632	0.3323	0.1386	9	0.7757	undisclosed	undisclosed	undisclosed	undisclosed	undisclosed
-0.0916	0.3083	0.1386	9	0.8229	disclosed	disclosed	disclosed	disclosed	disclosed

-0.0214	0.3294	0.6508	8	0.8636	disclosed	disclosed	disclosed	disclosed	disclosed
-0.0729	0.2585	0.6508	8	0.5231	disclosed	disclosed	disclosed	disclosed	disclosed
-0.0743	0.0173	0.0113	8	0.4145	undisclosed	disclosed	undisclosed	undisclosed	undisclosed
0.0502	0.0854	0.0104	8	0.3864	disclosed	disclosed	undisclosed	disclosed	disclosed
0.0521	0.0832	0.0104	8	0.3751	disclosed	disclosed	undisclosed	undisclosed	disclosed
0.0552	0.0694	0.0096	8	0.3458	undisclosed	disclosed	undisclosed	disclosed	disclosed
0.0921	0.1145	0.0004	6	0.4094	undisclosed	disclosed	undisclosed	disclosed	undisclosed
0.1133	0.1614	0.0004	6	0.4119	disclosed	disclosed	disclosed	undisclosed	disclosed

Logarithm of Financial Data of Consumer and Industrial Goods Companies Listed on Nigerian Stock Exchange (NSE) 2012-2017

ROA	GPM	OWNS	BZ	LEV	FZ	SEND	COD	ICAD	SECOD	RIMD	IT
0.9288	0.9636	0.7255	1.1139	0.9106	8.4042	1	1	1	1	1	1
0.933	0.9681	0.7208	1.1139	0.8276	8.4027	1	1	1	1	1	1
0.9159	0.9518	0.5933	1.2041	0.7482	8.5437	1	1	1	1	1	1
0.9114	0.9534	0.6279	1.2041	0	8.5523	1	1	1	1	1	1
0.9017	0.9494	0.6219	1.2304	0.8441	8.5654	1	1	1	1	1	1
0.9038	0.9504	0.617	1.2304	0.8043	8.5829	1	1	1	1	1	1
0.9038	0.9354	0.8499	0.9542	0.9514	7.3624	0	0	0	0	0	1
0.9038	0.9354	0.8523	0.9542	0.9357	7.3624	1	1	1	1	1	1
0.9038	0.9408	0.8519	0.9542	0.9183	7.3869	1	1	0	0	1	1
0.9038	0.9302	0.8475	0.9542	0.933	7.4796	1	1	1	1	1	1
0.9038	0.9342	0.8447	0.9031	0.7937	7.5248	0	1	0	0	0	1
0.9038	0.9383	0.8447	1	0.8017	7.6529	1	1	1	1	1	1
0.9038	0.9687	0.7377	0.9031	0.964	7.9492	0	0	0	0	0	1
0.9038	0.9651	0.7377	0.9031	0.9649	8.0343	1	1	1	1	1	1
0.9038	0.9703	0.6805	0.9031	0.9052	8.0256	1	1	1	1	0	1
0.9038	0.9693	0.8964	0.9031	0.8789	8.0763	1	1	1	1	1	1
0.9038	0.9572	0.8723	0.9031	0.8526	8.2294	1	1	1	1	1	1
0.9038	0.98	0.8709	0.9031	0.8548	8.1667	1	1	1	1	1	1
0.9038	0.97	0.7132	0.9031	0.9634	7.5623	0	0	0	0	0	1
0.9038	0.9621	0.7112	0.9031	0.9719	7.641	1	1	1	1	1	1
0.9038	0.9536	0.7112	0.9542	0.9782	7.6603	0	1	1	1	1	1
0.9038	0.951	0.706	0.9542	0.9789	7.7005	1	1	1	0	0	1
0.9038	0.9297	0.6289	1	0.9827	7.8603	1	0	0	1	1	1
0.9038	0.9231	0.6579	1	0.9315	8.0831	1	1	1	1	1	1
0.9038	0.9302	0.8753	0.9542	0.9387	7.9189	0	0	0	1	1	1
0.9038	0.9359	0.8753	1	0.9235	7.9401	1	1	1	1	1	1
0.9038	0.9185	0.8753	1	0.9274	7.9881	1	1	1	1	1	1
0.9038	0.9166	0.8754	0.9542	0.9257	8.028	1	1	1	1	1	1
0.9038	0.8983	0.8754	0.9542	0.9621	8.2445	1	1	1	1	1	1
0.9038	0.9311	0.8754	0.9542	0.9475	8.2924	0	0	0	0	0	1
0.9038	0.9674	0.6601	1.1139	0.946	8.0109	1	1	1	1	1	1
0.9038	0.9587	0.6596	1.0792	0.9541	8.083	1	1	1	1	1	1
0.9038	0.9494	0.6593	1.0792	0.9641	8.1217	1	1	1	1	1	1
0.9038	0.9571	0.6593	1.1139	0.9543	8.0872	1	1	1	1	1	1

0.9038	0.9367	0.6593	1.1139	0.969	8.1367	1	1	1	1	1	1
0.9038	0.9412	0.6681	1.0792	0.9712	8.1645	1	1	1	1	1	1
0.9038	0.8882	0.7507	1	0.9696	8.2369	1	1	1	1	1	1
0.9038	0.8821	0.7507	1.0414	0.9643	8.35	0	0	0	0	0	1
0.9038	0.895	0.751	1.0414	0.9606	8.3426	0	0	0	0	0	1
0.9038	0.884	0.7515	1.0414	0.9633	8.3679	1	1	1	1	1	1
0.9038	0.885	0.7515	1.1461	0.9785	8.5421	1	1	1	1	1	1
0.9038	0.9022	0.7377	1.1461	0.977	8.5365	1	1	1	1	1	1
0.9038	0.9059	0.712	1.0792	0.93	7.6915	0	0	0	0	0	1
0.9038	0.9231	0.712	1.0792	0.9264	7.7011	1	1	1	1	1	1
0.9038	0.9157	0.6389	1	0.9454	7.7134	1	1	1	1	1	1
0.9038	0.9271	0.6959	1	0.9416	7.6822	1	1	1	1	1	1
0.9038	0.915	0.6953	1.0414	0.9403	7.7655	1	1	1	1	1	1
0.9038	0.9225	0.6967	0.9542	0.9578	7.8636	1	1	1	1	1	1
0.9038	0.9542	0.8286	0.9542	0.8858	7.029	0	0	0	0	0	1
0.9038	0.9439	0.8438	0.9542	0.8658	7.0581	1	0	0	1	1	1
0.9038	0.9267	0.857	1	0.939	7.0988	1	1	1	0	0	1
0.9038	0.9206	0.857	1	0.953	7.212	1	1	1	1	1	1
0.9038	0.9163	0.7376	1	0.9681	7.391	0	1	0	0	0	1
0.9038	0.9359	0.7303	1	0.9582	7.4789	1	1	1	1	1	1
0.9038	0.803	0.785	1.0792	0.8896	7.889	0	0	0	0	0	1
0.9038	0.713	0.785	1.0414	0.9573	7.7767	0	0	0	1	1	1
0.9038	0.8251	0.785	1.0414	0.9725	7.7289	1	1	1	0	0	1
0.9038	0.845	0.785	1.0792	0.998	7.666	1	1	1	1	1	1
0.9038	0.9395	0.785	1	0.9714	7.8843	0	0	0	0	0	1
0.9038	0.916	0.785	0.9031	0.9748	8.1117	0	0	0	0	0	1
0.9038	0.9289	0.7617	0.9542	0.9415	7.6	0	0	0	0	0	1
0.9038	0.9322	0.7607	0.8451	0.934	7.6352	1	1	1	1	1	1
0.9038	0.9281	0.7531	0.9031	0.9477	7.4596	1	1	1	1	1	1
0.9038	0.9326	0.7531	0.8451	0.9452	7.4536	1	1	1	1	1	1
0.9038	0.9172	0.7531	0.9031	0.9532	7.4535	0	0	0	0	0	1
0.9038	0.9219	0.7531	0.8451	0.9519	7.4537	0	0	1	1	1	1
0.9038	0.8269	0.8195	1.0000	0.8715	6.8325	0	0	0	0	0	1
0.9038	0.6341	0.7498	0.9542	0.876	6.9608	1	1	1	1	1	1
0.9038	0.8316	0.7544	0.9542	0.9142	6.9819	1	1	1	1	1	1
0.9038	0.8554	0.8285	1.0414	0.8879	7.0141	1	1	1	1	1	1
0.9038	0.8614	0.8277	1.0414	0.8727	6.9983	1	1	1	0	0	1
0.9038	0.8769	0.8277	1.0414	0.8632	7.0038	1	1	1	1	1	1

0.9038	0.9384	0.7326	0.9542	0.9407	8.7952	0	0	0	0	0	0
0.9038	0.9408	0.7326	0.9542	0.9367	8.9141	1	1	1	1	1	0
0.9038	0.9334	0.7363	1.0792	0.8758	8.9838	1	1	1	1	1	0
0.9038	0.9295	0.7387	1.0792	0.8858	9.0509	1	1	1	1	1	0
0.9038	0.9155	0.9961	1.1461	0.9	9.1689	1	1	1	1	1	0
0.9038	0.9335	0.9932	1.1461	0.8857	9.2071	1	1	1	1	1	0
0.9038	0.884	0.6722	1.0792	0.8783	7.8282	0	0	0	0	0	0
0.9038	0.8679	0.6722	1.0792	0.8773	7.8288	1	1	1	1	1	0
0.9038	0.8954	0.6582	1.2304	0.8929	8.5361	1	1	1	1	1	0
0.9038	0.8911	0.6644	1.2304	0.8969	8.5812	1	1	1	1	1	0
0.9038	0.8429	0.6644	1.2304	0.9443	8.7305	0	0	0	0	0	0
0.9038	0.8788	0.6644	1.2304	0.9707	8.7897	0	0	0	0	0	0
0.9038	0.8834	0.6253	0.9542	0.9245	7.3513	1	0	0	0	0	0
0.9038	0.8755	0.6253	0.9542	0.9378	7.434	1	1	1	1	1	0
0.9038	0.8948	0.6253	0.9542	0.9152	7.4302	1	1	0	1	1	0
0.9038	0.8836	0.596	1.0414	0.8954	7.4341	1	1	1	1	1	0
0.9038	0.877	0.596	0.9031	0.8965	7.5209	1	0	0	0	0	0
0.9038	0.8863	0.543	1	0.8944	7.5822	1	1	1	1	1	0
0.9038	0.9895	0.7558	0.8451	0.9244	6.4588	0	1	0	1	1	0
0.9038	1.0026	0.7505	0.7782	0.9026	6.4822	1	1	1	1	1	0
0.9038	1.0104	0.7505	0.7782	0.9033	6.4887	0	1	0	1	1	0
0.9038	1.0034	0.7505	0.7782	0.8788	6.5327	1	1	1	1	1	0
0.9038	0.9744	0.7505	0.8451	0.9153	6.6916	1	1	0	1	1	0
0.9038	0.9719	0.7505	0.8451	0.9078	6.7002	1	1	1	1	1	0
0.9038	0.9499	0.9347	0.8451	0.9135	6.0309	0	0	0	0	0	0
0.9038	0.9523	0.9347	0.8451	0.9135	6.0309	1	1	1	0	1	0
0.9038	0.9315	0.9346	0.8451	0.9535	6.2417	1	1	1	0	1	0
0.9038	0.9224	0.9609	0.7782	0.9568	6.2942	0	0	0	1	1	0
0.9038	0.9344	0.955	0.7782	0.9382	6.2769	1	1	1	0	0	0
0.9038	0.9427	0.8567	0.7782	0.9459	6.3673	1	1	1	1	1	0
0.9038	0.828	0.9501	0.7782	0.6448	6.3503	0	1	0	1	1	0
0.9038	0.8097	0.9501	0.7782	0.7181	6.3764	0	1	0	1	1	0
0.9038	0.8192	0.9692	0.7782	0.6916	6.3636	0	1	0	1	1	0
0.9038	0.7855	0.9694	0.7782	0.7711	6.4145	0	1	0	1	1	0
0.9038	0.6344	0.97	0.7782	0.8399	6.2457	0	1	0	1	1	0
0.9038	0.8147	0.97	0.7782	0.8117	6.2302	0	1	0	1	1	0
0.9038	0.9567	0.9453	0.699	0.956	6.3777	0	0	0	0	0	0
0.9038	0.9046	0.9453	0.7782	0.9545	6.3851	0	1	0	1	0	0

0.9038	0.962	0.9453	0.699	0.952	6.3575	0	1	0	0	0	0
0.9038	0.9482	0.9453	0.699	0.9629	6.2786	0	0	0	1	0	0
0.9038	0.9345	0.6043	0.8451	0.9599	6.2441	0	1	0	0	0	0
0.9038	0.9261	0.6618	0.7782	0.9088	6.3088	1	1	1	1	1	0
0.9038	0.928	0.8135	1.0792	0.8905	6.4546	0	1	0	0	0	0
0.9038	0.9206	0.8135	1.0792	0.8793	6.5486	1	1	1	1	1	0
0.9038	0.9342	0.8015	1.0792	0.873	6.5611	1	1	1	1	1	0
0.9038	0.9315	0.8054	1.0792	0.8698	6.5906	0	1	0	1	0	0
0.9038	0.9143	0.8586	1	0.8932	6.613	1	1	0	0	1	0
0.9038	0.9202	0.8586	1	0.9051	6.6346	1	1	1	1	1	0
0.9038	0.887	0.8939	0.9031	0.9602	5.4649	0	0	0	0	0	0
0.9038	0.9104	0.8939	0.9542	0.9739	5.456	0	0	0	0	0	0
0.9038	0.8591	0.8939	0.9542	0.9801	5.5331	0	0	0	0	0	0
0.9038	0.88	0.8939	0.9542	0.9847	5.5256	1	1	1	1	1	0
0.9038	0.9024	0.9769	0.9031	0.9884	5.5052	1	1	1	1	1	0
0.9038	0.8114	0.9769	0.9031	0.9513	5.7828	1	1	1	1	1	0
0.9038	0.7451	0.791	0.9031	0.9449	6.943	0	1	0	0	0	0
0.9038	0.8451	0.7872	0.9031	0.9404	6.9285	1	1	0	1	1	0
0.9038	0.8477	0.7872	0.9031	0.9385	6.9238	1	1	0	0	1	0
0.9038	0.8481	0.7838	0.9031	0.9333	6.9113	0	1	0	1	1	0
0.9038	0.8643	0.6352	0.7782	0.9443	6.9659	0	1	0	1	0	0
0.9038	0.8747	0.6352	0.7782	0.9448	6.9789	1	1	1	0	1	0

APPENDIX-III

Underlying Assumptions of Statistical Data Analysis for Categorical (Binomial logistic) Regression

i. **The dependent variable** is measured on a **dichotomous scale** (i.e. **disclosed [1]** and **undisclosed [0]**).However, if **dependent variable** is measured on a **continuous** scale instead, we will carry out **multiple regression**, whereas if **dependent variable** was measured on an **ordinal scale**, **ordinal regression** would be a more appropriate analysis.

ii. **One or more independent variables**, which can be either **continuous** (i.e., an **interval** /**ratio** variable-ROA, GPM, ownership structure, leverage, firm size). Or **Categorical** (i.e., an **ordinal** or **nominal** variable-[consumer goods [1] or industrial goods companies [2])

iii. **Independence of observations** and the dependent variable should have **mutually exclusive and exhaustive categories (see i & ii).**

iv. **Linear relationship between any continuous independent variables and the logit transformation of the dependent variable**. (a) use the Box-Tidwell (1962) procedure to test for linearity.

v. **Hosmer-Lemeshow** tests the null hypothesis that predictions made by the model fit perfectly with observed group memberships. A chi-square statistic is computed comparing the observed frequencies with those expected under the linear model. A non-significant chi-square indicates that the data fit the model well. This procedure suffers from several problems, one of which is that it relies on a test of significance. With large sample sizes, the test may be significant, even when the fit is good. With small sample sizes it may not be significant, even with poor fit. Even Hosmer and Lemeshow have acknowledged problems with this test

vi. **Box-Tidwell Test**. Although logistic regression is often thought of as having no assumptions, we do assume that the relationship between the continuous predictors and the logit (log odds) is linear. This assumption can be tested by including in the model interactions between the continuous predictors and their logs. If such an interaction is significant, then the assumption has been violated. We should take caution that sample size is a factor here too, so we should not be very concerned with a just significant interaction when sample sizes are large. See the interaction test in bold as follows:

Linearity Assumption between Continuous Predictors and Logit (Log Odds)

i. Partial violation

Variables in the Equation									
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	IT(1)	-.193	.495	.152	1	.697	.824	.312	2.177
	BZ	3.964	1.793	4.887	1	.027	52.661	1.568	1768.832
	BZ by elogBZ	**-1.141**	**.534**	**4.565**	**1**	**.033**	**.320**	**.112**	**.910**
	ROA	-133.017	153.324	.753	1	.386	.000	.000	5.515E+72
	OWNS	-124.304	55.955	4.935	1	.026	.000	.000	.000
	ROA by elogROA	**104.755**	**114.721**	**.834**	**1**	**.361**	**3.123E+45**	**.000**	**1.396E+143**
	OWNS by elogOWNS	**118.462**	**54.394**	**4.743**	**1**	**.029**	**2.802E+51**	**140454.107**	**5.588E+97**
	Constant	50.592	34.327	2.172	1	.141	937607464106217300 0000.000		

a. Variable(s) entered on step 1: IT, BZ, BZ * elogBZ , ROA, OWNS, ROA * elogROA , OWNS * elogOWNS .

Note you can add the power of the predictor to the model (i.e. going polynomial) since the assumption of linearity has been violated.

ii. Not violated

Variables in the Equation									
Intellectual capital information disclosure		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	IT(1)	.960	.648	2.195	1	.138	2.610	.734	9.290
	BZ	.562	1.668	.114	1	.736	1.755	.067	46.113
	FZ	19.531	12.063	2.621	1	.105	303401288.103	.016	5623226286529806300
	GPM	-134.291	102.1	1.72	1	.189	.000	.000	46448523928

			95	7					13997000000 0000000
	BZ by elogBZ	**-.119**	**.495**	**.058**	**1**	**.810**	**.888**	**.337**	**2.343**
	FZ by elogfz	**-6.588**	**4.052**	**2.643**	**1**	**.104**	**.001**	**.000**	**3.874**
	GPM by elogGPM	**127.524**	**94.277**	**1.830**	**1**	**.176**	**2.416 E+55**	**.000**	**4.282E+135**
	Constant	-1.670	47.322	.001	1	.972	.188		
a. Variable(s) entered on step 1: IT, BZ, FZ, GPM, BZ * elogBZ , FZ * elogfz , GPM * elogGPM .									

iii. Not violated

Variables in the Equation									
Risk management qualitative information disclosure		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	IT(1)	-.376	.399	.885	1	.347	.687	.314	1.502
	LEV	-17.524	142.410	.015	1	.902	.000	.000	4.066E+113
	LEV by elogLEV	**5.970**	**128.112**	**.002**	**1**	**.963**	**391.434**	**.000**	**4.383E+111**
	Constant	13.544	54.089	.063	1	.802	761993.591		
a. Variable(s) entered on step 1: IT, LEV, LEV * elogLEV .									

iv. Not violated

Variables in the Equation									
Socio-economic qualitative information disclosure		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	IT(1)	-.440	.398	1.219	1	.269	.644	.295	1.406
	LEV	-61.701	170.781	.131	1	.718	.000	.000	3.737E+118
	LEV by elogLEV	**45.566**	**152.878**	**.089**	**1**	**.766**	**615005445631216200 00.**	**.000**	**8.292E+149**
	Constant	30.381	65.305	.216	1	.642	15642232682591.055		
a. Variable(s) entered on step 1: IT, LEV, LEV * elogLEV .									

V. not violated

Variables in the Equation									
Corporate governance qualitative information disclosure		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	IT(1)	.085	.438	.038	1	.846	1.089	.462	2.568
	LEV	-170.077	337.116	.255	1	.614	.000	.000	1.230E+213
	LEV by elogLEV	**138.251**	**298.100**	**.215**	**1**	**.643**	**1.101E+60**	**.000**	**.**
	Constant	74.619	131.116	.324	1	.569	2551223586240745000000000000000		
a. Variable(s) entered on step 1: IT, LEV, LEV * elogLEV .									

VI.Not violated

Variables in the Equation									
Socio-environmental qualitative information disclosure		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	FZ	1.678	10.537	.025	1	.873	5.357	.000	4990356977.594
	IT(1)	-.219	.490	.199	1	.656	.804	.308	2.100
	FZ by elogfz	**-.368**	**3.517**	**.011**	**1**	**.917**	**.692**	**.001**	682.077
	Constant	-6.226	25.858	.058	1	.810	.002		
a. Variable(s) entered on step 1: FZ, IT, FZ * elogfz .									

APPENDIX-IV

Data Analysis Output from Statistical Package for Social Science Students (SPSS) Version-23.

```
LOGISTIC REGRESSION VARIABLES SEND
  /METHOD=ENTER ROA OWNS BZ IT
  /CONTRAST (IT)=Indicator
  /SAVE=PRED PGROUP
  /CLASSPLOT
  /CASEWISE OUTLIER(2)
  /PRINT=GOODFIT CI(95)
  /CRITERIA=PIN(0.05) POUT(0.10) ITERATE(20) CUT(0.5).
```

Logistic Regression

Notes		
Output Created		10-NOV-2018 09:12:17
Comments		
Input	Data	C:\Users\EJEMBI ANDREW\Downloads\Client\Eneh Ilochi Data PhD.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	132
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing
Syntax		LOGISTIC REGRESSION VARIABLES SEND /METHOD=ENTER ROA OWNS BZ IT /CONTRAST (IT)=Indicator /SAVE=PRED PGROUP /CLASSPLOT /CASEWISE OUTLIER(2) /PRINT=GOODFIT CI(95) /CRITERIA=PIN(0.05) POUT(0.10) ITERATE(20) CUT(0.5).
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02
Variables Created or Modified	PRE_1	Predicted probability
	PGR_1	Predicted group

Case Processing Summary			
Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	132	100.0
	Missing Cases	0	.0
	Total	132	100.0

Unselected Cases	0	.0
Total	132	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding	
Original Value	Internal Value
Undisclosed	0
Disclosed	1

Categorical Variables Codings			
		Frequency	Parameter coding (1)
Industry Type	listed industrial goods companies	60	1.000
	listed consumer goods companies	72	.000

Block 0: Beginning Block

Classification Table[a,b]					
	Observed		Predicted		
			Socio-environmental qualitative information disclosure		Percentage Correct
			undisclo	disclo	
Step 0	Socio-environmental qualitative information disclosure	undisclo	0	47	.0
		disclo	0	85	100.0
	Overall Percentage				64.4

a. Constant is included in the model.
b. The cut value is .500

Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	.593	.182	10.625	1	.001	1.809

Variables not in the Equation					
			Score	df	Sig.
Step 0	Variables	ROA	7.451	1	.006
		OWNS	8.548	1	.003
		BZ	11.741	1	.001

		IT(1)	4.234	1	.040
	Overall Statistics		17.694	4	.001

Block 1: Method = Enter

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	18.281	4	.001
	Block	18.281	4	.001
	Model	18.281	4	.001

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	153.614[a]	.129	.178

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	4.245	8	.834

Contingency Table for Hosmer and Lemeshow Test						
		Socio-environmental qualitative information disclosure = undisclosed		Socio-environmental qualitative information disclosure = disclosed		Total
		Observed	Expected	Observed	Expected	
Step 1	1	11	9.833	2	3.167	13
	2	5	6.991	8	6.009	13
	3	5	5.790	8	7.210	13
	4	4	4.772	9	8.228	13
	5	5	4.335	8	8.665	13
	6	3	3.913	10	9.087	13
	7	4	3.623	9	9.377	13
	8	5	3.127	8	9.873	13
	9	3	2.624	10	10.376	13
	10	2	1.990	13	13.010	15

Classification Table[a]					
	Observed		Predicted		
			Socio-environmental qualitative information disclosure		Percentage Correct
			undisclosed	disclosed	
Step 1	Socio-environmental	undisclos	16	31	34.0

	qualitative information disclosure	ed			
		disclosed	10	75	88.2
	Overall Percentage				68.9

a. The cut value is .500

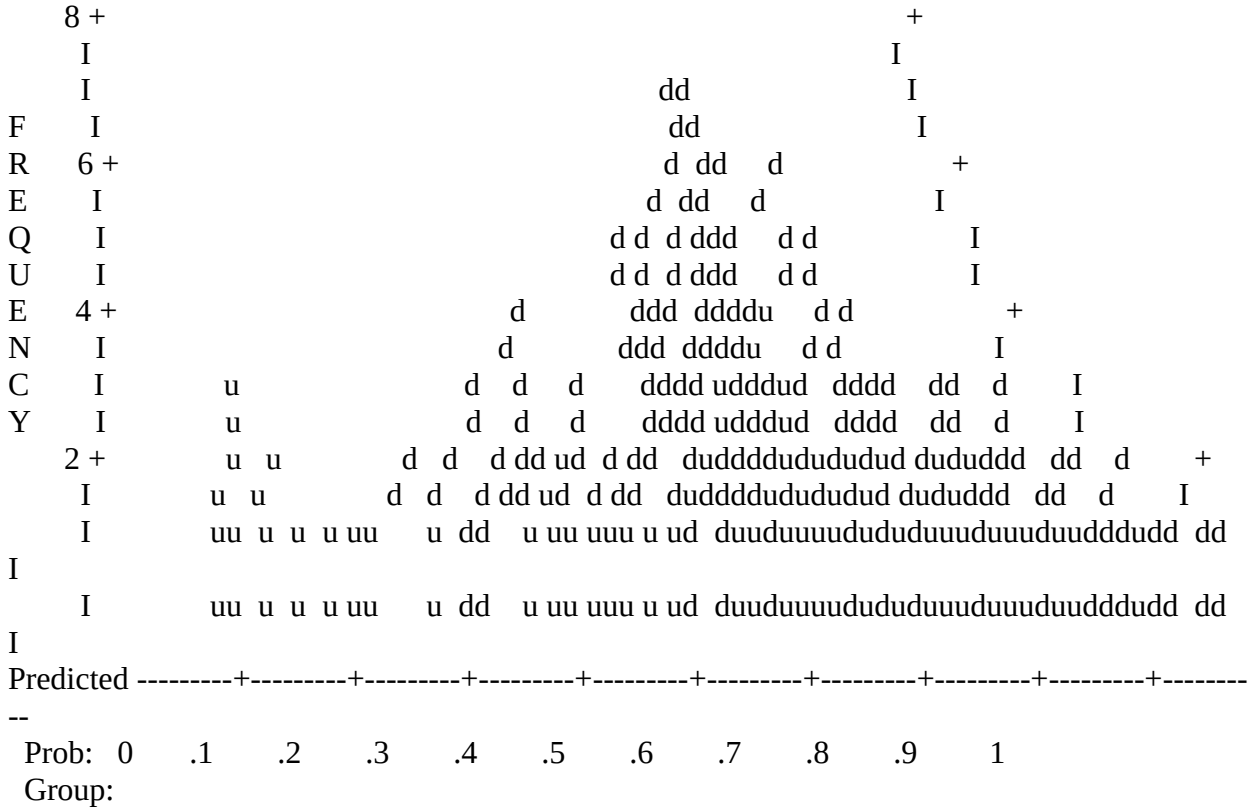
Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	ROA	5.641	3.434	2.698	1	.100	281.708	.336	235930.716
	OWNS	-2.670	1.989	1.802	1	.179	.069	.001	3.416
	BZ	3.763	1.902	3.913	1	.048	43.068	1.035	1791.852
	IT(1)	-.179	.422	.179	1	.672	.836	.366	1.912
	Constant	-5.713	4.137	1.907	1	.167	.003		

a. Variable(s) entered on step 1: ROA, OWNS, BZ, IT.

Step number: 1

Observed Groups and Predicted Probabilities



Predicted Probability is of Membership for disclosed
The Cut Value is .50
Symbols: u - undisclosed
d - disclosed
Each Symbol Represents .5 Cases.

Casewise List[b]

Case	Selected Status[a]	Observed	Predicted	Predicted Group	Temporary Variable	
		Socio-environmental qualitative information disclosure			Resid	ZResid
84	S	u**	.857	d	-.857	-2.448

a. S = Selected, U = Unselected cases, and ** = Misclassified cases.
b. Cases with studentized residuals greater than 2.000 are listed.

Block 0: Beginning Block

Classification Table[a,b]

	Observed	Predicted	
		Intellectual capital qualitative	Percentage

			information disclosure		Correct
			undisclosed	disclosed	
Step 0	Intellectual capital qualitative information disclosure	undisclosed	0	55	.0
		disclosed	0	77	100.0
	Overall Percentage				58.3

a. Constant is included in the model.
b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	.336	.177	3.632	1	.057	1.400

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	IT(1)	10.183	1	.001
		BZ	12.596	1	.000
		GPM	6.245	1	.012
		FZ	12.082	1	.001
	Overall Statistics		21.767	4	.000

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	23.270	4	.000
	Block	23.270	4	.000
	Model	23.270	4	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	156.037[a]	.162	.218

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	15.028	8	.059

Contingency Table for Hosmer and Lemeshow Test

		Intellectual capital qualitative information disclosure = undisclosed		Intellectual capital qualitative information disclosure = disclosed		Total
		Observed	Expected	Observed	Expected	
Step 1	1	10	10.565	3	2.435	13
	2	9	8.735	4	4.265	13
	3	7	7.441	6	5.559	13
	4	5	6.122	8	6.878	13
	5	6	4.973	7	8.027	13
	6	3	4.203	10	8.797	13
	7	9	3.863	4	9.137	13
	8	2	3.628	11	9.372	13
	9	4	3.264	9	9.736	13
	10	0	2.207	15	12.793	15

Classification Table[a]

	Observed		Predicted		
			Intellectual capital qualitative information disclosure		Percentage Correct
			undisclosed	disclosed	
Step 1	Intellectual capital qualitative information disclosure	undisclosed	27	28	49.1
		disclosed	16	61	79.2
	Overall Percentage				66.7

a. The cut value is .500

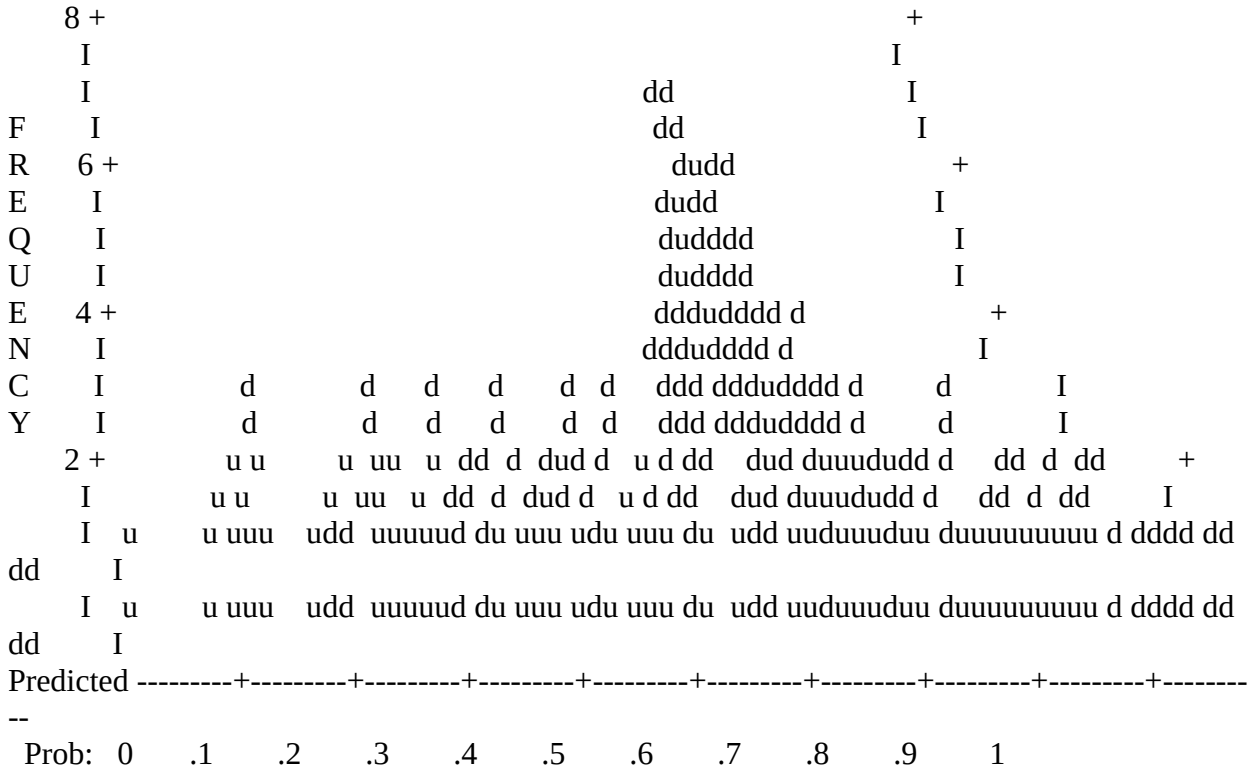
Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	95% C.I.for EXP(B)
								Lower	Upper
Step 1[a]	IT(1)	-.672	.437	2.362	1	.124	.511	.217	1.203
	BZ	4.526	2.169	4.357	1	.037	92.406	1.318	6479.585
	GPM	7.758	3.694	4.409	1	.036	2339.399	1.676	3264599.546
	FZ	.078	.310	.063	1	.802	1.081	.589	1.984
	Constant	-11.320	4.044	7.837	1	.005	.000		

a. Variable(s) entered on step 1: IT, BZ, GPM, FZ.

Step number: 1

Observed Groups and Predicted Probabilities



Predicted Probability is of Membership for disclo
The Cut Value is .50
Symbols: u - undisclosed
d - disclosed
Each Symbol Represents .5 Cases.

Casewise List[b]

Case	Selected Status[a]	Observed	Predicted	Predicted Group	Temporary Variable	
		Intellectual capital qualitative information disclosure			Resid	ZResid
68	S	d**	.176	u	.824	2.161

a. S = Selected, U = Unselected cases, and ** = Misclassified cases.

b. Cases with studentized residuals greater than 2.000 are listed.

Block 0: Beginning Block

Classification Table[a,b]

	Observed	Predicted	
		Corporate governance qualitative	Percentage

			information disclosure		Correct
			undisclosed	disclosed	
Step 0	Corporate governance qualitative information disclosure	Undisclosed	0	32	.0
		disclosed	0	100	100.0
	Overall Percentage				75.8

a. Constant is included in the model.
b. The cut value is .500

Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	1.139	.203	31.474	1	.000	3.125

Variables not in the Equation					
			Score	df	Sig.
Step 0	Variables	IT(1)	.397	1	.528
		LEV	4.092	1	.043
	Overall Statistics		4.393	2	.111

Block 1: Method = Enter

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	9.709	2	.008
	Block	9.709	2	.008
	Model	9.709	2	.008

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	136.510[a]	.071	.106

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test			
Step	Chi-	df	Sig.

	square		
1	7.836	8	.450

Contingency Table for Hosmer and Lemeshow Test						
		Corporate governance qualitative information disclosure = undisclo		Corporate governance qualitative information disclosure = disclo		Total
		Observed	Expected	Observed	Expected	
Step 1	1	4	5.252	9	7.748	13
	2	5	4.696	8	8.304	13
	3	7	4.261	6	8.739	13
	4	3	3.923	10	9.077	13
	5	4	3.591	9	9.409	13
	6	2	3.228	11	9.772	13
	7	1	2.569	12	10.431	13
	8	3	2.063	10	10.937	13
	9	3	1.673	10	11.327	13
	10	0	.744	15	14.256	15

Classification Table[a]					
	Observed		Predicted		
			Corporate governance qualitative information disclosure		Percentage Correct
			undisclo	disclo	
Step 1	Corporate governance qualitative information disclosure	undisclo	0	32	.0
		disclo	0	100	100.0
	Overall Percentage				75.8

a. The cut value is .500

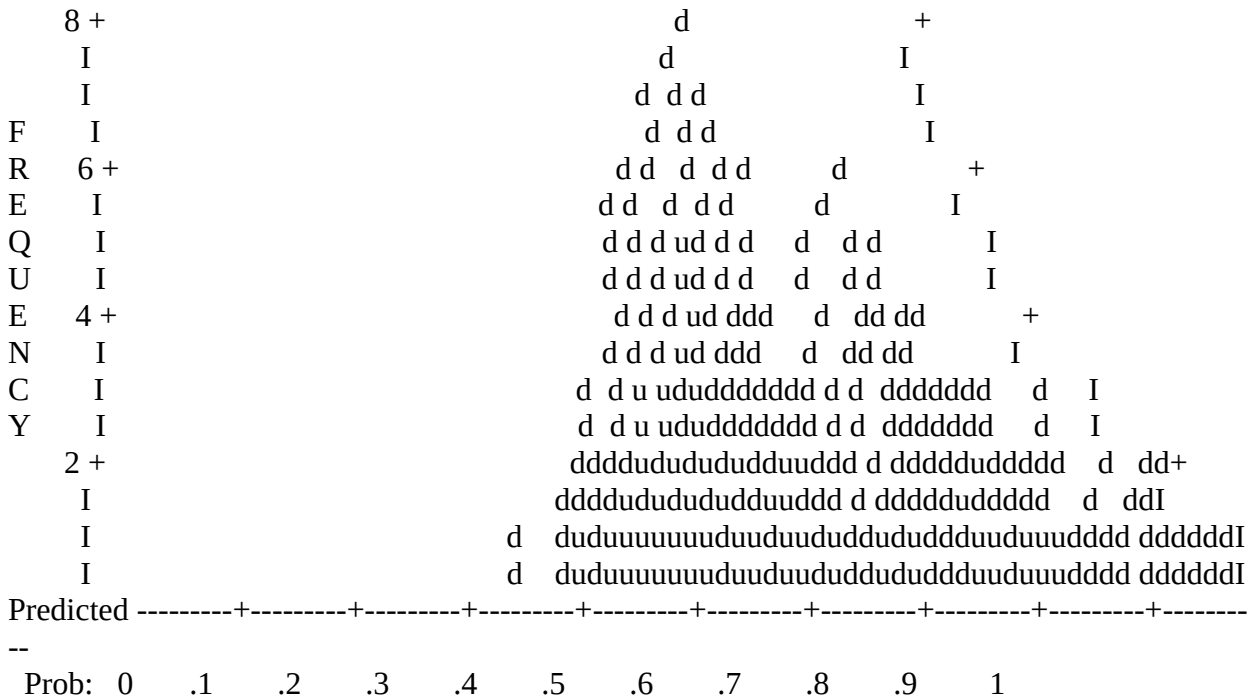
Variables in the Equation									
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	95% C.I.for EXP(B)
								Lower	Upper
Step 1[a]	IT(1)	.051	.433	.014	1	.907	1.052	.451	2.456
	LEV	-14.24	5.703	6.240	1	.012	.000	.000	.046

		6							
	Constant	14.336	5.385	7.086	1	.008	1682661.693		

a. Variable(s) entered on step 1: IT, LEV.

Step number: 1

Observed Groups and Predicted Probabilities



Predicted Probability is of Membership for disclo
The Cut Value is .50
Symbols: u - undisclo
d - disclo
Each Symbol Represents .5 Cases.

Casewise List[b]						
Case	Selected Status[a]	Observed	Predicted	Predicted Group	Temporary Variable	
		Corporate governance qualitative information disclosure			Resid	ZResid

50	S	u**	.881	d	-.881	-2.721
67	S	u**	.872	d	-.872	-2.612
79	S	u**	.867	d	-.867	-2.553

a. S = Selected, U = Unselected cases, and ** = Misclassified cases.

b. Cases with studentized residuals greater than 2.000 are listed.

Block 0: Beginning Block

Classification Table[a,b]

	Observed		Predicted		
			Socio-economic qualitative information disclosure		Percentage Correct
			undisclo	disclo	
Step 0	Socio-economic qualitative information disclosure	undisclo	0	42	.0
		disclo	0	90	100.0
	Overall Percentage				68.2

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	.762	.187	16.634	1	.000	2.143

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	IT(1)	.513	1	.474
		LEV	3.828	1	.050
	Overall Statistics		4.463	2	.107

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	8.727	2	.013
	Block	8.727	2	.013
	Model	8.727	2	.013

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	156.402[a]	.064	.090

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	4.155	8	.843

Contingency Table for Hosmer and Lemeshow Test						
		Socio-economic qualitative information disclosure = undisclosed		Socio-economic qualitative information disclosure = disclosed		Total
		Observed	Expected	Observed	Expected	
Step 1	1	7	6.337	6	6.663	13
	2	7	5.538	6	7.462	13
	3	4	5.165	9	7.835	13
	4	6	4.793	7	8.207	13
	5	4	4.482	9	8.518	13
	6	3	4.172	10	8.828	13
	7	4	3.897	9	9.103	13
	8	2	3.527	11	9.473	13
	9	4	2.678	9	10.322	13
	10	1	1.413	14	13.587	15

Classification Table[a]					
	Observed		Predicted		
			Socio-economic qualitative information disclosure		Percentage Correct
			undisclosed	disclosed	
Step 1	Socio-economic qualitative information disclosure	undisclosed	3	39	7.1
		disclosed	2	88	97.8
	Overall Percentage				68.9

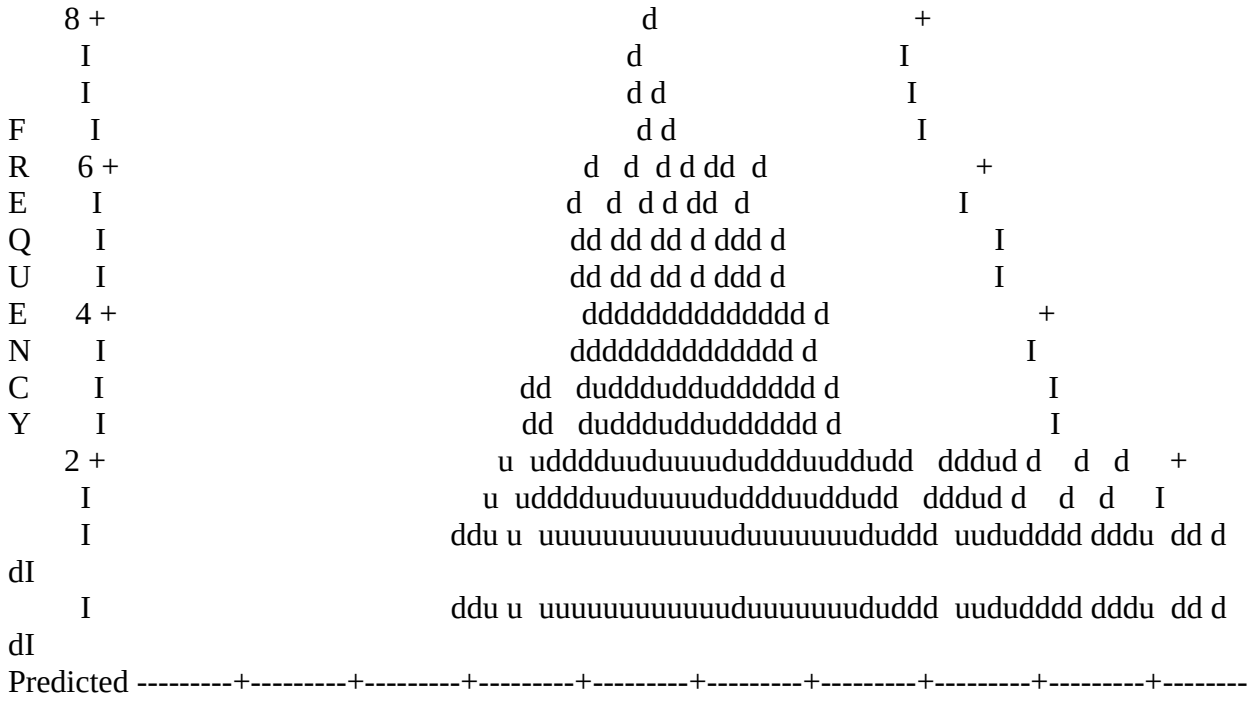
a. The cut value is .500

Variables in the Equation									
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	95% C.I.for EXP(B)
								Lower	Upper
Step 1[a]	IT(1)	-.458	.394	1.351	1	.245	.632	.292	1.370
	LEV	-10.974	4.598	5.697	1	.017	.000	.000	.141
	Constant	11.110	4.327	6.594	1	.010	66819.631		

a. Variable(s) entered on step 1: IT, LEV.

Step number: 1

Observed Groups and Predicted Probabilities



Predicted Probability is of Membership for disclo

The Cut Value is .50
Symbols: u - undisclo
d - disclo
Each Symbol Represents .5 Cases.

Casewise List[b]						
Case	Selected Status[a]	Observed	Predicted	Predicted Group	Temporary Variable	
		Socio-economic qualitative information disclosure			Resid	ZResid
11	S	u**	.917	d	-.917	-3.319

a. S = Selected, U = Unselected cases, and ** = Misclassified cases.
b. Cases with studentized residuals greater than 2.000 are listed.

Block 0: Beginning Block

Classification Table[a,b]					
	Observed		Predicted		
			Risk management qualitative information disclosure		Percentage Correct
			undisclosed	disclosed	
Step 0	Risk management qualitative information disclosure	undisclosed	0	41	.0
		disclosed	0	91	100.0
	Overall Percentage				68.9

a. Constant is included in the model.
b. The cut value is .500

Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	.797	.188	17.967	1	.000	2.220

Variables not in the Equation					
			Score	df	Sig.
Step 0	Variables	IT(1)	.265	1	.606
		LEV	3.770	1	.052
	Overall Statistics		4.124	2	.127

Block 1: Method = Enter

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	8.245	2	.016
	Block	8.245	2	.016
	Model	8.245	2	.016

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	155.325[a]	.061	.085

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	10.340	8	.242

Contingency Table for Hosmer and Lemeshow Test						
		Risk management qualitative information disclosure = undisclosed		Risk management qualitative information disclosure = disclosed		Total
		Observed	Expected	Observed	Expected	
Step 1	1	8	6.090	5	6.910	13
	2	6	5.352	7	7.648	13
	3	5	5.070	8	7.930	13
	4	5	4.751	8	8.249	13
	5	4	4.398	9	8.602	13
	6	2	4.092	11	8.908	13
	7	2	3.781	11	9.219	13
	8	2	3.420	11	9.580	13
	9	6	2.647	7	10.353	13
	10	1	1.399	14	13.601	15

Classification Table[a]			
	Observed	Predicted	
		Risk management qualitative information disclosure	Percentage Correct

			undisclo	disclo	
Step 1	Risk management qualitative information disclosure	undisclo	1	40	2.4
		disclo	2	89	97.8
	Overall Percentage				68.2

a. The cut value is .500

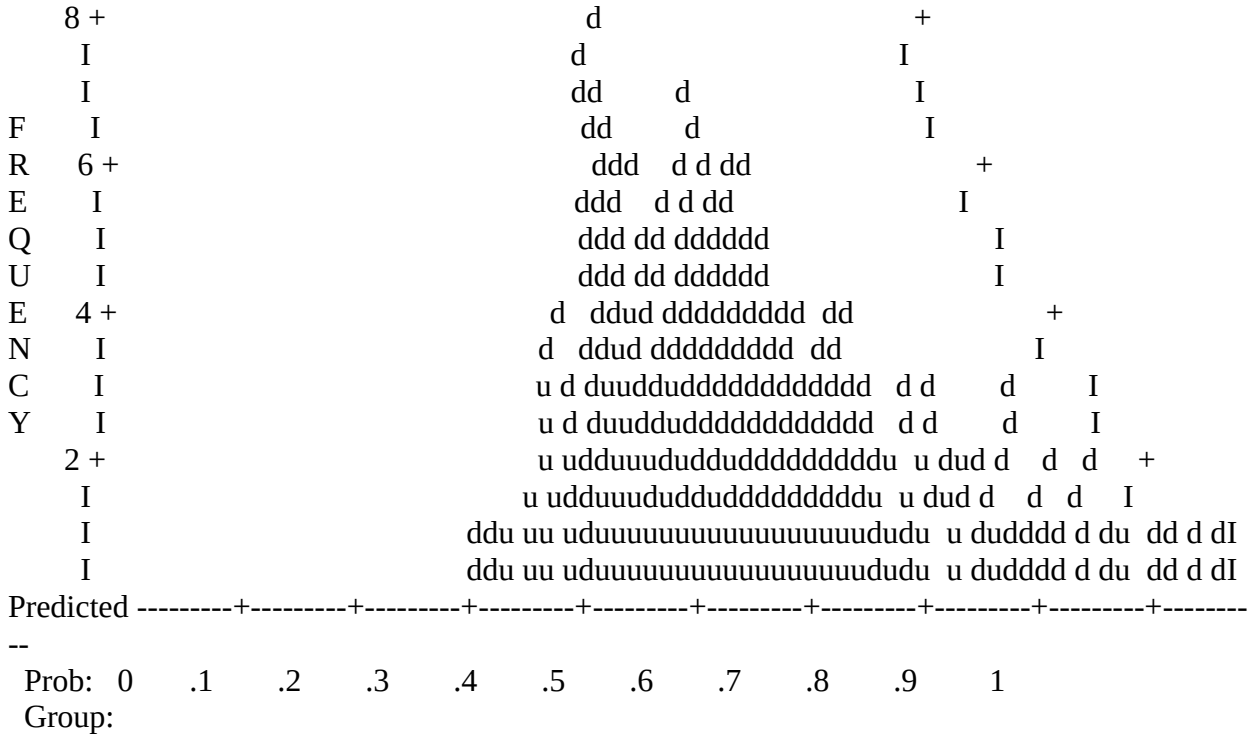
Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	95% C.I.for EXP(B)
								Lower	Upper
Step 1[a]	IT(1)	-.378	.396	.913	1	.339	.685	.315	1.489
	LEV	-10.895	4.630	5.536	1	.019	.000	.000	.162
	Constant	11.035	4.356	6.416	1	.011	61998.620		

a. Variable(s) entered on step 1: IT, LEV.

Step number: 1

Observed Groups and Predicted Probabilities



Predicted Probability is of Membership for disclo
The Cut Value is .50
Symbols: u - undisclo
d - disclo
Each Symbol Represents .5 Cases.

Casewise List[b]

Case	Selected Status[a]	Observed	Predicted	Predicted Group	Temporary Variable	
		Risk management qualitative information disclosure			Resid	ZResid
11	S	u**	.916	d	-.916	-3.300

a. S = Selected, U = Unselected cases, and ** = Misclassified cases.

b. Cases with studentized residuals greater than 2.000 are listed.

Block 0: Beginning Block

Classification Table[a,b]

	Observed	Predicted	
		Socio-environmental	Percentage Correct

			qualitative information disclosure		
			undisclo	disclo	
Step 0	Socio-environmental qualitative information disclosure	undisclo	0	47	.0
		disclo	0	85	100.0
	Overall Percentage				64.4

a. Constant is included in the model.
b. The cut value is .500

Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	.593	.182	10.625	1	.001	1.809

Variables not in the Equation					
			Score	df	Sig.
Step 0	Variables	FZ	9.240	1	.002
		IT(1)	4.234	1	.040
	Overall Statistics		9.659	2	.008

Block 1: Method = Enter

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	9.689	2	.008
	Block	9.689	2	.008
	Model	9.689	2	.008

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	162.206[a]	.071	.097

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	13.024	8	.111

Contingency Table for Hosmer and Lemeshow Test						
		Socio-environmental qualitative information disclosure = undisclosed		Socio-environmental qualitative information disclosure = disclosed		Total
		Observed	Expected	Observed	Expected	
Step 1	1	7	7.684	6	5.316	13
	2	11	6.812	2	6.188	13
	3	3	6.262	10	6.738	13
	4	3	5.103	10	7.897	13
	5	5	4.430	8	8.570	13
	6	5	3.948	8	9.052	13
	7	5	3.603	8	9.397	13
	8	2	3.227	11	9.773	13
	9	4	2.956	9	10.044	13
	10	2	2.976	13	12.024	15

Classification Table[a]					
	Observed		Predicted		
			Socio-environmental qualitative information disclosure		Percentage Correct
			undisclosed	disclosed	
Step 1	Socio-environmental qualitative information disclosure	undisclosed	19	28	40.4
		disclosed	10	75	88.2
	Overall Percentage				71.2

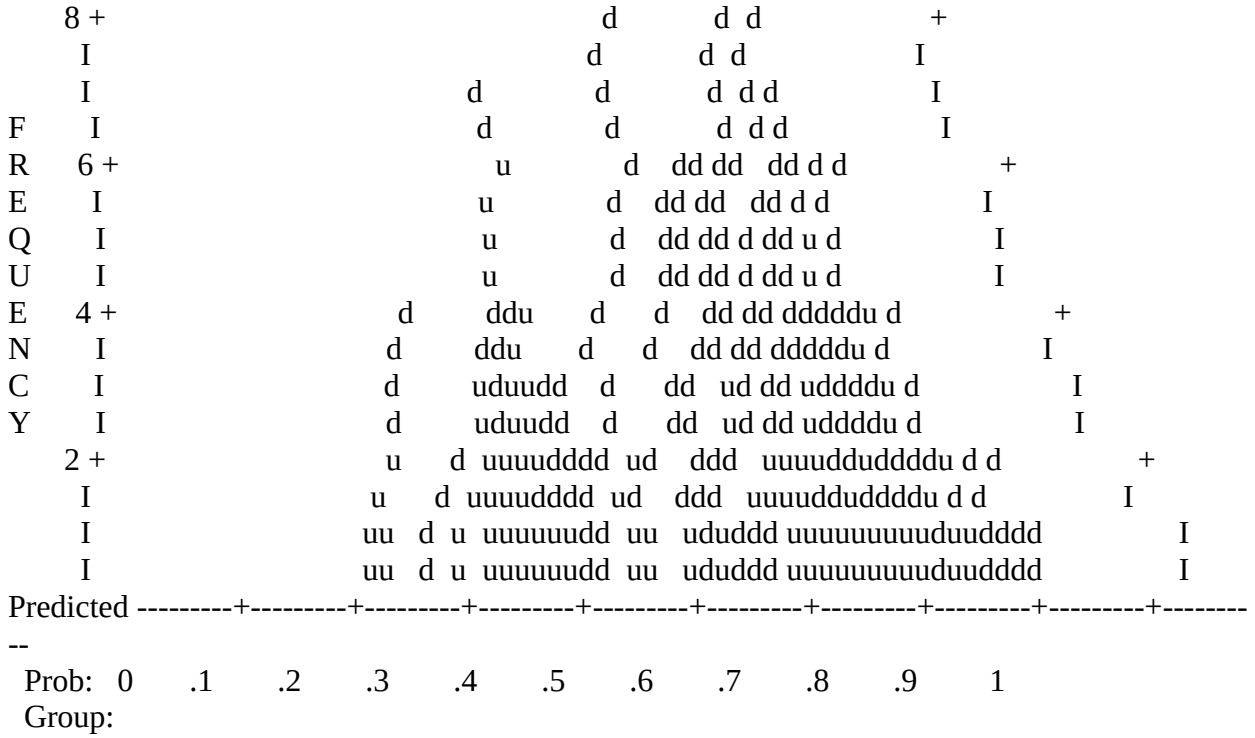
a. The cut value is .500

Variables in the Equation									
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	95% C.I.for EXP(B)
								Lower	Upper
Step 1[a]	FZ	.577	.261	4.891	1	.027	1.781	1.068	2.970
	IT(1)	-.239	.450	.282	1	.595	.787	.326	1.901
	Constant	-3.532	2.040	2.999	1	.083	.029		

a. Variable(s) entered on step 1: FZ, IT.

Step number: 1

Observed Groups and Predicted Probabilities



Predicted Probability is of Membership for disclo
The Cut Value is .50
Symbols: u - undisclo
d - disclo
Each Symbol Represents .5 Cases.

APPENDIX-V

Names of Nigeria Listed Consumer and Industrial Goods Companies on Nigeria Stock Exchange

S/N	NAMES OF CONSUMER GOODS COMPANIES	MKT CAPITALISATION
1	NESTLE NIGERIA PLC. (NESTLE)	1,109,718,752,800.00
2	NIGERIAN BREW. PLC. (NB)	703,727,380,488.00
3	INTERNATIONAL BREWERIES PLC. (INTBREW)	275,067,581,952.00
4	UNILEVER NIGERIA PLC. (UNILEVER)	249,907,735,639.50
5	DANGOTE SUGAR REFINERY PLC (DANGSUGAR)	176,400,000,000.00
6	GUINNESS NIG PLC (GUINNESS)	173,040,242,701.00
7	FLOUR MILLS NIG. PLC. (FLOURMILL)	85,287,895,784.00
8	P Z CUSSONS NIGERIA PLC. (PZ)	50,028,010,767.00
9	NASCON ALLIED INDUSTRIES PLC (NASCON)	49,014,609,993.00
10	DANGOTE FLOUR MILLS PLC (DANGFLOUR)	40,000,000,000.00
11	CADBURY NIGERIA PLC. (CADBURY)	17,842,919,380.00
12	CHAMPION BREW. PLC. (CHAMPION)	12,683,784,271.68
13	HONEYWELL FLOUR MILL PLC (HONYFLOUR)	10,071,351,025.66
14	UNION DICON SALT PLC. (UNIONDICON)	3,676,406,537.20
15	VITAFOAM NIG PLC. (VITAFOAM)	3,648,295,185.50
16	NIGERIAN ENAMELWARE PLC. (ENAMELWA)	1,680,307,200.00
17	MULTI-TREX INTEGRATED FOODS PLC (MULTITREX)	1,340,097,703.20
18	N NIG. FLOUR MILLS PLC. (NNFM)	1,051,380,000.00
19	DN TYRE & RUBBER PLC (DUNLOP)	954,533,842.40
20	GOLDEN GUINEA BREW. PLC. (GOLDBREW)	242,222,400.00
21	MCNICHOLS PLC (MCNICHOLS)	192,753,000.00

S/N	NAMES OF COMPANIES-INDUSTRIAL GOODS	MARKET CAPITALISATION
1	DANGOTE CEMENT PLC.	3,621,107,823,562.50
2	LAFARGE AFRICA PLC.	158,290,065,380.00
3	NOTORE CHEMICAL IND PLC.	100,754,137,500.00
4	CEMENT CO. OF NORTH.NIG. PLC.	31,354,110,261.70
5	BETA GLASS PLC.	31,048,261,200.00
6	CAP PLC .	20,020,000,000.00
7	CUTIX PLC.	3,575,483,712.78

8	AUSTIN LAZ & COMPANY PLC	**2,256,907,400.00**
9	PORTLAND PAINTS & PRODUCTS NIGERIA PLC.	**1,999,407,148.20**
10	BERGER PAINTS PLC	**1,912,834,750.20**
11	PREMIER PAINTS PLC.	**1,279,200,000.00**
12	FIRST ALUMINIUM NIGERIA PLC.	**696,418,549.86**
13	GREIF NIGERIA PLC.	**388,024,000.00**
14	MEYER PLC.	**329,367,388.26**

Sample Size Selection 10 Industrial and 12 Consumer Goods were selected based on Market Capitalisation and Availability of Audited Annual Accounts and Reports Covering 2012-2017.

S/N	NAMES OF CONSUMER GOODS COMPANIES	MKT CAPITALISATION
1	NESTLE NIGERIA PLC. (NESTLE)	1,109,718,752,800.00
2	NIGERIAN BREW. PLC. (NB)	703,727,380,488.00
3	INTERNATIONAL BREWERIES PLC. (INTBREW)	275,067,581,952.00
4	UNILEVER NIGERIA PLC. (UNILEVER)	249,907,735,639.50
5	DANGOTE SUGAR REFINERY PLC (DANGSUGAR)	176,400,000,000.00
6	GUINNESS NIG PLC (GUINNESS)	173,040,242,701.00
7	FLOUR MILLS NIG. PLC. (FLOURMILL)	85,287,895,784.00
8	P Z CUSSONS NIGERIA PLC. (PZ)	50,028,010,767.00
9	NASCON ALLIED INDUSTRIES PLC (NASCON)	49,014,609,993.00
10	DANGOTE FLOUR MILLS PLC (DANGFLOUR)	40,000,000,000.00
11	CADBURY NIGERIA PLC. (CADBURY)	17,842,919,380.00
12	CHAMPION BREW. PLC. (CHAMPION)	12,683,784,271.68
NAMES OF COMPANIES-INDUSTRIAL GOODS		**MARKET CAPITALISATION**
13	DANGOTE CEMENT PLC.	3,621,107,823,562.50
14	LAFARGE AFRICA PLC.	158,290,065,380.00
15	BETA GLASS PLC.	31,048,261,200.00
16	CAP PLC.	20,020,000,000.00
17	CUTIX PLC.	3,575,483,712.78
18	AUSTIN LAZ & COMPANY PLC	2,256,907,400.00
19	PORTLAND PAINTS & PRODUCTS NIGERIA PLC.	1,999,407,148.20
20	BERGER PAINTS PLC	1,912,834,750.20
21	PREMIER PAINTS PLC.	1,279,200,000.00
22	FIRST ALUMINIUM NIGERIA PLC.	696,418,549.86

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 /__    /   ____/   /   ____/
___/   /   /___/   /   /___/   11.0   Copyright 1984-2009
  Statistics/Data Analysis            StataCorp
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     Special Edition                  College Station, Texas 77845 USA
                                      800-STATA-PC        http://www.stata.com
                                      979-696-4600        stata@stata.com
                                      979-696-4601 (fax)

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Notes:
      1.  (/m# option or -set memory-) 50.00 MB allocated to data
      2.  (/v# option or -set maxvar-) 5000 maximum variables

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. use "C:\Users\User\Desktop\STATA FILES\STATA11 training\onyinye.dta", clear

. logit nfd roa gpm owns bz lev fz it

Iteration 0:   log likelihood = -379.23181
Iteration 1:   log likelihood = -274.43028
Iteration 2:   log likelihood = -172.95755
Iteration 3:   log likelihood = -162.90873
Iteration 4:   log likelihood = -162.90344
Iteration 5:   log likelihood = -153.95333
Iteration 6:   log likelihood = -153.95333

Logistic regression                               Number of obs   =        132
                                                  LR chi2(7)      =      390.6
                                                  Prob > chi2     =     0.0000
Log likelihood = -153.95333                       Pseudo R2       =     0.5799

------------------------------------------------------------------------------
         nfd |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         roa |   0.177473   0.072177     2.46   0.019    -2.641476    2.457865
         gpm |   0.564978   0.211996     2.67   0.013    -3.122411    3.252370
        owns |  -0.122993   0.164498    -0.74   0.704    -5.365331    3.119345
          bz |   0.120579   0.279187     0.43   0.523    -3.346546    5.587703
         lev |  -0.722461   0.995484    -0.72   0.802    -22.51343   -2.931488
          fz |  -0.007058   0.000241    -2.93   0.014     -.676857    .6627419
          it |   0.450757   .2177651     2.07   0.045    -.4854227    1.386936
       _cons |  -0.621197   0.228577    -2.72   0.018    -10.34176    48.09403
------------------------------------------------------------------------------

. logit nfd roa gpm owns bz lev fz it, or

Iteration 0:   log likelihood = -379.23181
Iteration 1:   log likelihood = -274.43028
Iteration 2:   log likelihood = -172.95755
Iteration 3:   log likelihood = -162.90873
Iteration 4:   log likelihood = -162.90344
Iteration 5:   log likelihood = -153.95333
Iteration 6:   log likelihood = -153.95333
```

```
Logistic regression                                     Number of obs   =        132
                                                        LR chi2(7)      =      390.6
                                                        Prob > chi2     =     0.0000
Log likelihood = -153.95333                             Pseudo R2       =     0.5799

------------------------------------------------------------------------------
         nfd | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         roa |   1.194195   0.072177     2.46   0.019    -2.641476    2.457865
         gpm |   1.759409   0.211996     2.67   0.013    -3.122411    3.252370
        owns |   0.884269   0.164498    -0.74   0.704    -5.365331    3.119345
          bz |   1.128151   0.279187     0.43   0.523    -3.346546    5.587703
         lev |   0.485555   0.995484    -0.72   0.802    -22.51343   -2.931488
          fz |   0.992966   0.000241    -2.93   0.014    -.6768577    .6627419
          it |   1.569499   .2177651     2.07   0.045    -.4854227    1.386936
       _cons |   0.537300   0.228577    -2.72   0.018    -10.34176    48.09403
------------------------------------------------------------------------------

. linktest

Iteration 0:   log likelihood = -379.23181
Iteration 1:   log likelihood = -274.43028
Iteration 2:   log likelihood = -172.95755
Iteration 3:   log likelihood = -162.90873
Iteration 4:   log likelihood = -162.90344
Iteration 5:   log likelihood = -153.95333
Iteration 6:   log likelihood = -153.95333

Logistic regression                                     Number of obs   =        132
                                                        LR chi2(7)      =      390.6
                                                        Prob > chi2     =     0.0000
Log likelihood = -153.95333                             Pseudo R2       =     0.5799

------------------------------------------------------------------------------
         nfd |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        _hat |   1.119104   .4039779     2.77   0.006     .3273217    1.910886
      _hatsq |  -.0530384   .0673428    -0.79   0.431    -.1850278    .0789511
       _cons |  -.0417721   .3452744    -0.12   0.904    -.7184976    .6349534
------------------------------------------------------------------------------

. lfit, group (10) table

Logistic model for nfd, goodness-of-fit test

  (Table collapsed on quantiles of estimated probabilities)
  +--------------------------------------------------------+
  | Group |   Prob | Obs_1 | Exp_1 | Obs_0 | Exp_0 | Total |
  |-------+--------+-------+-------+-------+-------+-------|
  |     1 | 0.0016 |     5 |   5.5 |     9 |   8.5 |    14 |
  |     2 | 0.0033 |     8 |   8.4 |     5 |   5.6 |    13 |
  |     3 | 0.0054 |     9 |   8.4 |     4 |   4.6 |    13 |
  |     4 | 0.0096 |     6 |   6.8 |     7 |   7.2 |    13 |
  |     5 | 0.0206 |    10 |   10.1|     3 |   3.5 |    13 |
  |-------+--------+-------+-------+-------+-------+-------|
  |     6 | 0.0623 |    13 |  10.2 |     1 |   1.8 |    14 |
  |     7 | 0.1421 |    11 |   9.9 |     2 |   3.1 |    13 |
  |     8 | 0.4738 |    10 |  10.3 |     3 |   2.7 |    13 |
  |     9 | 0.8720 |    10 |  10.9 |     3 |   2.5 |    13 |
  |    10 | 0.9692 |    12 |  12.4 |     1 |   0.6 |    13 |
  +--------------------------------------------------------+

       number of observations =       132
```

```
           number of groups =        10
     Hosmer-Lemeshow chi2(8) =      7.90
                Prob > chi2 =      0.4432

. estat gof, all

Logistic model for nfd, goodness-of-fit test

       number of observations =       132
 number of covariate patterns =       132
            Pearson chi2(124) =    132.75
                  Prob > chi2 =      0.2793

. estat ic

-------------------------------------------------------------------------------
       Model |    Obs    ll(null)   ll(model)     df          AIC         BIC
-------------+-----------------------------------------------------------------
           . |    132   -153.9043   -153.9533      8     161.8066     184.869
-------------------------------------------------------------------------------
               Note:  N=Obs used in calculating BIC; see [R] BIC note
```