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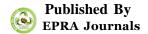
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# IMPACTS OF CORPORATE GOVERNANCE ATTRIBUTES ON INTELLECTUAL CAPITAL DISCLOSURE: EVIDENCE FROM LISTED BANKING COMPANIES IN NIGERIA

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#### **ABSTRACT**

Intellectual capital (IC) can be a source of competitive advantage from business and stimulate innovation that leads to wealth generation. Meanwhile, it is a study that covers the period of 2013-2016. The sample size of the study carried out on the intellectual capital disclosure practice consists of all listed (30 bank) in Nigeria, from which data were collected from their annual reports. This study investigates the association between the extent of intellectual capital disclosure (ICD) and the corporate governance attributes of listed banking companies in Nigeria. Moreover, hypothesis were formulated in accordance with the objectives and was tested with regression analysis by SPSS in order to ascertain the relationship between the board characteristics and intellectual disclosure of the firms. The assumptions underlying the regression model were tested for multi colinearity based on the correction matrix as well as the variance inflation factor (VIF)

Therefore, this study confirms that there are significant relationship between intellectual capital disclosure and board size, size of audit committee respectively.

However, the study finds no significant relationship between intellectual capital disclosure and other variable like number of independent directors to the board, frequency of board meeting, ownership concentration and shareholders.

KEY WORDS: corporate governance; intellectual capital; Disclosure; Banks; Nigeria.

#### INTRODUCTION

The concept of Intellectual Capital (IC) gained grounds in the 1990s with the rapid emergence of information and communication technologies. It is simply the knowledge, organizational technology, professional skills, and customer relations that offer a competitive advantage in the market.

According to Bontis (1998), the concept was more than pure intellect but intellectual action. It is the move from "having" knowledge to "using" knowledge.

As the dynamics of the Nigerian economy is making a shift away from its traditional product based economy to a knowledge based orientation and diversification approach, the importance of intellectual capital is beginning to gain momentum. The knowledge based economy is now increasingly important to value creation than ever before.

In modern economic environment, intellectual capital is understood as "a non monetary asset without physical substance but which possesses value or which can generate future benefits" (Choong, 2015, p.613). It is classified into three sub-categories, i.e. human

structural and relational capital (e.g Edvinsson, 1997, Sveiby, 1997; Sanchez et al; 2013).

It is also considered as one of the main value creators in the process of value creation in organization and in the new economy (METRITUM, 2002); OECD, 2015, 2016.

Since accounting theory recognizes intellectual capital in a very limited extent and a balance sheet reports only those intangible assets that fulfill the required criteria (eg. Ownership rights, goodwill), it is necessary to report or obtain more comprehensive (non-financial, forward looking) information about them somewhere else.

An adequate disclosure regime is a common goal of all corporate governance systems. A sizeable body of the literature argues that the wave of accounting scandals can be attributed to the poor quality of corporate governance in overseeing the practice of financial reporting (Agrawal & Chadha, 2012). The empirical research shows that good corporate governance reduces the information asvmmetrv between managers and owners (Kanagaretnam, Lobo, & Whalen, 2013) and improves the levels of corporate disclosure (Lang & Lundholm, 2012). Focusing on the importance of disclosures in corporate governance, the Cadbury committee stipulates that, an open approach to the disclosure of information contributes to the efficient working of the market economy, prompts boards to take effective action and allows shareholders and others to scrutinize companies more thoroughly (Cadbury, 2015, principles 3.2).

However, traditional financial reporting, based mostly on regulating requirement, often proved inadequate for disclosing information about critical success factors, related performance indicators (Mouriten, Larsen, & Bukh, 2015) and those value creation, drivers not represented in financial statements (Levi & Zarowin, 2016). More specifically, traditional accounting reports do not have enough potential to show the true value established by intangibles in firms not to cover the gap between market and book value in many of today's companies (Canibuno, Garcia – Auyso, & Sanchez, 2000; Maditines, Chatzoudes, Tsairidis & Theriou, 2011).

Undoubtedly, emergence of knowledge based society and economy has shifted organizational value driver from tangible assets to intangibles, which is termed as intellectual capital. A discourse then emerges, expressing an urgency to measure and manage these intangible and knowledge assets (Mouritsen & Roslender, 2016). In a consequence, companies are urged to improve their disclosure on intangible assets (Sriram, 2016; Vandemaele, Vergauwen, & Smits, 2005) and also explain the roles these assets play in their value creation strategies (Bismuth & Tojo, 2008).

The term "IC" is used to refer to intangible assets or intangible business factors of the company, which have a significant impact on its performance and overall business success, although the are not explicitly listed in the balance sheet (if so, then under the term goodwill) (Mondel & Ghosh, 2012, p. 516). Intellectual Capital has been used interchangeably with intangibles, knowledge or knowledge resources. Various researchers have identified three components of intellectual capital, namely; human capital (HC), structural capital, and relational capital (Bontis, 1999, 2001; it is apparent from the voluminous number of edited publication (Bontis, 2015) that there is an influential body of opinion which advocates increased intellectual capital disclosure (Bontis, 2016) and lately, IC elements and related disclosures have been in the ascendant and this commensurate with the rise of the modern knowledge-based economy (Guthrie, Petty, Yongvanich, & Ricceri, 2005; Oliveries, Gowthorpe, Kasper Skaya, & Perramon, 2008).

The research aims to answer the important questions of whether corporate governance affects firms' decisions to voluntarily disclose intellectual capital information in the narratives of their annual reports. The study tests the association between corporate governance attributes and IC disclosure. Specifically, the study examines the impacts of board size, board independence, audit committee, directors' ownership, and board meeting on IC disclosure.

# 2. STATEMENT OF THE PROBLEM

The study stems from an interest to observe impact of corporate governance attributes on intellectual capital disclosure in the banking industry of Nigeria. In recent years, financial institutions, especially those in the banking industry, have experienced a dynamic and competitive environment. With escalating global competition and its attendant rapid changes, banks have been increasingly providing superior product differentiation and value added services in order to remain competitive. Being aware of the inevitability of establishing sustainable competitive growth, the Nigerian banking sector has embraced a range of initiatives in a move towards knowledgebased resources. Raihan (2014) identified banks' upgrading of business processes into automated systems, the constant striving for efficient manpower creation, enhanced employees knowledge and competence, improved networks and offering value added services as examples of the necessary changes with in the Nigerian banking industry. The banking industry not only appeared as one of the most knowledge-intensive industries in Nigeria but also as a prime mover of economic growth on which functions of other business organizations are dependent. In that aspect, value of IC disclosure in the banking industry in Nigeria bears high significance.

During the last decade, focus on disclosure and corporate governance has increased gradually in the South Asian countries and most importantly, some local and regional professional bodies have taken some initiatives to set a benchmark on disclosure practices and to motivate companies to disclose company information fairly and accurately. For example, South Asian Federation of Accountants (SAFA) awards SAFA Best presented Accounts Awards and Corporate Governance Disclosure Awards to the companies within the South Asian region for presentation of accounts and corporate disclosures. Most importantly, in 2015, Prime Bank Limited, a Nigeria Commercial Bank achieved the winner award in the banking sector. In Nigeria, the prime regulator of stock market, that is Nigerian Securities and Exchange Commission (SEC) also felt urgency of ensuring the integrity of financial control system existing in the listed companies through NSEC Notification 2015. The Nigerian Banks prudential regulators Banks on Corporate Governance in Bank Management States that, "The board shall have its analytical review incorporated in the Annual Report as regard the success/failure in achieving the business and other target as set out in its annual workplan and shall appraise the shareholders of its opinions/recommendations on future plans and strategies. It shall set the Key Performance Indicators (KPIs) for the CEO and other senior executives and have it evaluated at time".

Previous researches also shown that the ownership structure of the large stock exchange listed companies is dominated by families Nigerian Enterprise Institute (BEL, 2016) not unlike others. Family and Kinship ties are deeply rooted in Nigeria's political and economic history. A family business is more like a household, where disclosure is seen as revealing the family's secrets. Uddin and Chowdhury (2016) argue that, it is not surprising that familycontrolled companies inhibit accountability and transparency, because this is about revealing family secrets. That's why, while the financial disclosure requirements and auditing standards set out by the NSEC for listed companies are quite comprehensive, actual compliance is highly questionable. Undoubtedly, intellectual capital disclosure (ICS), which is voluntary in nature, in the listed companies in Nigeria largely, depends on corporate governance attributes or the characteristics of the family controlled board of directors.

#### **OBJECTIVES OF THE STUDY**

The primary objective of the study is to examine the impact of board size, board independence, audit committee, director's ownership, and board meeting on intellectual disclosure.

# **SECONDARY OBJECTIVES ARE:**

- (1) To ascertain the impact of board size on the quality of intellectual capital disclosure in Nigerian Banking Companies.
- (2) To know the degree of board independence on intellectual capital disclosure quality in Nigerian Banking firms.
- (3) To determine the relevancy of audit committee size on the quality of intellectual capital disclosure in Nigerian Banking firms.
- (4) To know if there is a relationship between directors ownership and the quality of intellectual capital disclosure in Nigeria banking companies.
- (5) To ascertain the relationship between shareholders and the quality of intellectual capital disclosure.

#### **HYPOTHESIS**

- H1: Board size has a positive significant impact on the quality of intellectual capital disclosure in Nigerian banking companies.
- **H2:** Board independence has a significant positive effect on intellectual capital disclosure quality in Nigerian Banking Firms.
- H3: Audit committee has a significant positive impact on intellectual capital disclosure quality in Nigerian banking firms.
- H4: Directors ownership has a significant positive impact on the quality of intellectual capital disclosure in Nigerian banking companies.
- H5: Shareholders has a significant positive relationship on intellectual capital disclosure.

#### LITERATURE REVIEW

Intellectual capital disclosure is a voluntary disclosure. There is no universally accepted regulation of guidance. There is no universally accepted regulation or guideline on intellectual capital disclosure (Rahim, Atan, & Kamaluddin, 2014). Voluntary disclosure is annual report has always been seen to reflect good corporate governance because it represents a company's effort to promote transparency by provision of relevant information as much as possible to users (Campbell & Rahman, 2010). The corporate governance literature provides some evidence that low disclosure of intellectual capital information is an indication of weak governance practices in the governing reporting process (Haniffa & Cooke, 2016).

Apart from corporate governance literature, a number of empirical studies were conducted to investigate ICD practices worldwide (e.g Guthrie & Petty, 2015 in Australia; Brenna, 2001 in Ireland; April, Bosma & Deglon 2003 in South Africa; Bozzolan, O'Regan, & Ricceri, 2015 in Italy; Goh & Lim, 2015 in Malaysia; Abeysekera and Guthrie, 2015 in Sri Lanka; Guthrie, Petty, & Recceri, 2016 in Hong Kong and Australia; Kamath, 2016 in India; Yi & Davey, 2016 in China; Nurunnabi, Hossain, & Hossain, 2011 in Bangladesh). Features of prior researches on ICD are that, these researches mainly focused on the developed countries, with a minority of studies of developing economies and the majority of ICD studies have employed a content analysis methodology Nurunnabi, Hossain, & Hossain, 2016 p. 200).

Another development in the ICD literature is the incorporation of theoretical reasoning and investigation of firm-specific factors to explain why companies do voluntarily disclose IC (Bozzolan, Favotto, & Ricceri, 2016; Li, Pike, & Haniffa, 2014). Some studies (e.g. Bozzolan, Favotto, & Ricceri, 2016; Bruggen, Vergauwen, & Dao, 2014) find that, board size, board independence, audit committee, directors ownership and shareholders are significant explanatory variables of ICD. Tayib and Salman (2014) demonstrated that as a company discloses its intellectual resources becomes competitive and earns trust of investors and creditors. Al-Musalli and Ismail (2012) conducted a study to analyse the relationship between intellectual capital performance and corporate governance attributes on 147 bank in Gulf Cooperation Counsel (CGC) for the period 2008 to 2010. They found that, except board independence (negative relationship with disclosure), other variables are not associated with intellectual capital performance. Falikhatun, Aryani, and Prabow (2010) investigated the effects of corporate governance on the intellectual capital disclosure on a sample of 36 banks in Nigeria from a period of 2013 to 2016. They found that some corporate governance attribute (Board size, Audit committee directors ownership and shareholder) do not affect IC disclosure while board size negatively affects IC disclosure. Nurunnabi, Hossain, and Hossain (2011) confirm that size and industry are important attributes to explain the IC disclosure (ICD) issues in Nigeria.

The above literature reveals that intellectual capital disclosure is affected by various corporate attributes. Explanatory factors that are tested for influence on ICD include industry, firm size, leverage, profitability or financial performance and corporate governance variables such as board independence, ownership structure, board size, shareholders, audit committee size etc. Given the emphasis of the extract literature, the research questions for the present study were given above.

# THEORETICAL BACKGROUND / FRAMEWORK

Organization undertake voluntary disclosure for the following key reasons. Technology-based or knowledge-intensive industry like bank will engage in more ICD than industries that relay mainly on physical assets to be profitable. This relationship can be explained by the Agency Theory.

# 2.1 AGENCY THEORY

The theory explains that, managers are the agents of the shareholders and adequate disclosure will provide a means of achieving the optimal contact (Aljifri, 2016). The theory assumes that the agency cost will vary with corporate attributes and by disclosing more; the managers will reduce the agency cost of ensuring trustworthiness to the shareholders. Some support for the agency theory exists based on prior studies linking corporate governance features to voluntary disclosure (Gul & Leung 2014).

#### 2.2 STAKEHOLDERS THEORY

Stakeholder theory purports that stakeholders have a right to be provided with information about how the company's activities affect them Guthrie, Petty, Yongvanich, & Ricceri, 2014).

In knowledge-intensive industries, IC assets appear to be the organization's value driver. Since, IC assets are invisible in mandated disclosure, in order to satisfy the stakeholders' need for information and to balance conflicting demands of stakeholders, firms in technology-based or knowledge-intensive industries will engage in voluntary disclosure about their IC (Yau, Chun, & Balaraman, 2015)

#### 2.3 LEGITIMACY THEORY

Under legitimacy theory, "a company would voluntarily report on activities of management perceived that the particular activities were expected by the communities in which it operates" (Guthrie, Petty, Yongvanich, & Ricceri, 2015, p. 284). Legitimating is concerned with building, maintain and repairing the social contract between the organization and society (Campball, Craven, & Shrives, 2016). Legitimacy theory overlaps with stakeholder theory (Deegan, 2009). Both view organizations as embedded in a wider societal system, interacting with, affecting and being affected by others within that system.

# 2.4 SIGNALING THEORY

Signaling theory, by contrast, suggests that to minimize the information gap between a company and its stakeholders, it will need to supply the most credible or widely accepted information of its operations that it possibly can (Spence, 1973). The theory assumes that the disclosures of information is a reaction to informational asymmetry in markets and the signal of the company would be critical in terms of attracting potential and prospective investors and creditors (Morris 1987).

# 2.5 MEDIA AGENDA – SETTING THEORY

According to this theory, management can respond to media – focused community concerns by way of voluntary disclosure in their corporate annual accounts. Alternatively, Sujan and Abeysekera (2007) argue that corporate annual report are an important form of media and through them firms can bring attention to what they believe stakeholders should view as important.

Meanwhile, this work is anchored in signaling theory.

#### **METHODOLOGY**

Content analysis method is used to measure the extent of ICD in annual reports. While each company's entire annual report was analyzed, the Chairman's Report and Managing Directors' Report were the predominant areas where IC was disclosed. To measure ICD, the study uses disclosure index comprising items of IC developed by Nurunnabi, Hossain (2014) (Appendix - 1). Main reason for choosing the disclosure index is that, it covers 63 IC items proposed by previous researchers. Moreover, the index has previously been used to measure ICD in the context of Nigeria. The disclosure index contains 11 internal (structural) capital (IC) items, 19 external (relational) capital (EC) items and 33 human (employee) capital (HC) 33 items. To asses the extent of voluntary disclosure, a scoring sheet was developed where if the company disclosed the information on IC it will receive a score of 1 to 3, or 0 in the event of an absence of disclosure. The disclosure model for the weighted disclosure thus measures the total disclosure score (TDS) for a company as follows;

ICD = 
$$\frac{\text{Edi}}{m}$$
 i = 1,2 ...... 63;

where

di = 1 or 2 or 3 of the item di is disclosed

di = 1 for disclosure in qualitative terms or

di = 2 for disclosure in qualitative terms or

di = 3 for disclosure in both qualitative and quantitative terms 0 of the item di is not disclosed.

M = Total weighted number of items a company may disclose = 189

# 3.2 THE SAMPLE SIZE

The study is carried out on the IC disclosure practices of listed banks in Nigeria. The sample frame of the study consists of all listed banks (30 banks) in Nigeria – Specifically, the sample covers the annual reports of companies listed on the NSE for the year 2014 – 2016.

#### 3.3 REGRESSION MODEL

The researchers has used regression analysis to test the relation between the board characteristics and intellectual disclosure of the firms. The assumptions underlying the regression model were tested for multi collinearity based on the correlation matrix as well as the variance inflation factor (VIF)

ICD = a + B1Bs + B2 ID + B3MAC + B4 BSH + B5 $NBM + \epsilon$ 

#### **TABLE TWO**

**Independent Variables**: Corporate Goverance Attributes

BS = Board size	Total number of directors on the board Number of
ID = Independent Directors (Board Independence)	Independent Directors in the Board. This satisfies
	the definition of an independent director as
	provided in the NSEC Notification 2016.
MAC – Members of Audit Committee	Total number of audit committee members
BSH = Board shareholders	Percentage of share capital held by the directors
	The number of regular meetings held by the board
NBM = Number of Board meeting during the year	of directors during each year. The meetings refer to
	those held in person, excluding the telephonic
	meetings

#### **DEPENDABLE VARIABLES**

Intellectual Capital Disclose (ICD)	Checklist containing 63 items developed by Nurunnabi,
	Hassain, and Hossain (2011)

# DATA PRESENTATION AND ANALYSIS

Table 3 presents the descriptive statistics for the dependent and independent variables. The average level of voluntary ICD in the sample companies is 16.32 percent, with a maximum of 28.0 percent and a minimum of 7 percent. This level of disclosure reveals a relatively poor disclosure regime in Nigeria which is similar to the findings of Nurunnabi, Hossian and

Hossian (2016). Regarding the independent variable, the average board size is approximately 14 directors ranging from a minimum of 5 directors to a maximum of 24 directors. As per NSEC notification No. SEC/CMRRCD/2006-158/134/Admin/44 dated August, 2012, listed companies in Nigeria should have a board size in between 5-20; whereas, the banking companies act 1991 (Amended in 2013) requires board size to be maximum of 20 directors including 3

independent directors. At present, all the banks comply with the legal and regulatory requirements. Table 3 also reveals that the average number of independent directors to the board is 1.73 with maximum 4 members and minimum 0. Further scruting reveals that, 4 sample banks failed to comply the requirements legal and regulatory requirement regarding IDS. As regards to size of audit committee, the study finds that, on an average,, there are 4.26 members in the Audit committee to the board with maximum 6 members and maximum 3 members. But the focal point is that some companies do not comply minimum ID requirement. The average frequency of board meeting is 17.76 times

per fiscal year with minimum 7 times and maximum 31 times. 31 times and the average attendance of board of director are 72.92% in the board meetings. It appears that banking and financial sector entails much more regular board meetings due to nature of business. The percentage of inside ownership has a mean value of 36.94% with SD 19.33%. There is high difference between the minimum, which is 4.63% and the maximum of 90.19%. This implies that board directors in some companies may own more than 50% of shares in the firm attributing them the majority of the ownership.

**Table 3: descriptive Statistics** 

	N	Range	Minimum	maximum	mean	Standard deviation
BS	90	19	5	24	13.99	4.20
ID	90	4	0	4	1.73	0.88
MAC	90	3	3	6	4.26	0.92
NBM	90	24	7	31	17.76	6.42
BSH	90	85.56	4.63	90.19	36.94	19.33
ICD	90	.21	.07	.28	.1632	.04403

# 4.2 Correlation Analysis

Table 4 summarizes the correlation between dependent variable (ICD) and independent variable board size,.

board independence, audit committee and directors ownership.

**Table 4 Correlation Analysis** 

		BS	BS	MAC	NBM	BSH	
BS	Person	1	0.123	.275	0	0.156	.602**
	Correlation						
ID	Person		1	0.043	0.119	.083	
	Correlation						.083
MAC	Person			1	0.194	.418	
	Correlation						
NBM	Person				1	-0.026	.315**
	Correlation						
BSH	Person						
	Correlation						.020

<sup>\*</sup>Significant at 5% level of Significance, \*\* Significant at 1 %level of Significant

The table also represents the correlation between the independent variable each other. It shows that board size is positively correlation with audit committee size, which means that the size of the board of directors play a significant role in determining the members of audit committee. A significantly negative correlation exists between audit committee size and the directors ownership. The NSEC Notification No. SEC/CMRRCD/2006 158 /134/Admin/44 dated August, 2014 emphasized on board independence focusing on having adequate number of independent directors to the board. The

notification requires that, at least one fifth (1/5) of the total number of directors in the company's board shall be independent director (ID).

The notification also requires that, the audit committee to the board shall be composed of at least 3 (three) members including at least 1 (one) shall be an ID. Moreover, chairman of the audit committee shall be an ID who shall remain present in the Annual General Meeting (AGM). However, it is interesting that no relationship has been found between independent directors and other corporate governance attributes.

# 4.3 Multiple Linear Regression Analysis

The models are regressed using Linear regression analysis by the SPSS and the results are presented in table 4. In total, 36. 3 percent of the variable in ICD (adjusted R2) was explained by the five independent variables. Examination of the five independent variables showed that board size (BC) and audit committee size (MAC) has a statistically significant positive relationship with overall ICD (P=0.000 and 0.033 respectively). However, other test variables, directors ownership and directors independence are not positively significant at 5 percent level. This implies that having a higher proportion of outside independence directors (ID) on board does not influence IC disclosures, thus rejecting H2. These results also confirmed the correlation analysis results. The board of directors in most of the listed companies in Nigeria comprise very close members. The boards play a significant part in serving the interests of families rather than those of general shareholders (Uddin & Chowdhury 2016, P 1026).

It is not surprising that family controlled companies inhibit accountability and transparency, because this is about revealing family secrets.

That's why, the research hypothesized that board independence is negatively associated with ICD.

However, regression analysis did not show any significant impact of directors ownership on ICD, thus rejecting H4.

# 4.4 Test for Multi Co-Linearity and Autocorrelation.

The multi co-linearity is a phenomenon where two or more variables are highly correlation. Highly degree of multi co-linearity indicated bias relation between two variables and it may affect accuracy of multi regression test results. The problem exist if independent variables are highly correlation at each other with correlation exceeding 0.90 according to Tabachnick and Fidel (2007). Multi co-linearity can also be examined by tolerance and VIF test Myers (2015) suggested that a VIF value of 10 and tolerance level greater than (>) I are causes for concern. The multi co-linearity statistics of the independent variables of this study is presented in table 4.

It is seen that, none of the independent variables has a tolerance value in excess of 10 and a VIF value in excess of IO. So in this study, multi colinearity is not a problem in interpreting the regression results. Moreover, Durbin-Watson test value in these models are 1.986 (see Table 5), which confirms the absence of auto correlation.

TABLE 4: IMPACT OF CORPORATE GOVERANCE ATTRIBUTES IN ICD

	Impact of corporate Governance Attributes on ICD			
Independent Variables	T	Sig.	Tolerance	Collinearity
Variables				VIF
Constant	1.646	.103		
BS	5.764	.000	.830	1.204
ID	.069	.945	.960	1.042
MAC	2.165	.033	.684	1.462
NBM	.902	.370	.947	1.056
BSH	.920	.360	.734	1.362
Adjusted R <sup>2</sup>	0.363			
F Stat	11.147			
Significance of F	0.000*			

**Table 5:** Impact of corporate Governance Attributes on Intellectual capital Disclosure: Evidence from listed Banking Companies in Nigeria.

Durbin-Watson	1.986
* Significant at 5% level of significance	

#### 5.1 CONCLUSION

Intellectual capital can be a source of competitive advantage for business and stimulate innovative that leads to wealth generation. This study investigates the association between the extent of ICD and the corporate governance attributes of listed banking companies in Nigeria. There are many driving forces, such as globalization, the increased use of information technology, the recent announcement of "Digital Nigeria" and the consistent growth of the capital markets, which are pushing Nigeria towards knowledge based economy status. The banking industry not only appeared as one of the most knowledge-intensive industries in Nigeria but also as a prime mover of economic growth on which functions of other business organizations are dependent.

However, contrary to the notion of a knowledge based sector, this study adds to previous findings that demonstrate that Nigerian companies provide little in the way of ICD. The reasons for such poor disclosure may be due to the absence of any clear set of legislative guidelines including the companies Act 1994. Although there are some legal provisions on intellectual property including the patents, Designs and Trade Marks Act 1883 (later the Patents and Design Act 1991) and the Trade Marks Act 1940, there is no copyright guideline and the stock Exchange Listing Requirements also do not require companies to make ICDs. It may be argues that most of the companies in Nigeria are family owned in which, management does not have much motivation to disclose voluntary information on their stocks of IC in their annual reports. Therefore, regulation might be an option for the policy makers in Nigeria.

The study confirms that board size and size of audit committee are important attributes to explain the IC disclosure (ICD) issues in Nigeria. However, the study finds no significant association between ICD and other variables like number of IDs, frequency of board meeting, and ownership structure. The study is limited to only one sector of the knowledge economy companies and only for years 2013-2015. This study investigated the effect of five corporate governance attributes on ICD. Further research can be done using other firm specific features like industry type, leverage, firm size, listing age, auditor type etc.

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