Horn of Africa Journal of Business and Economics (HAJBE), 2021, 4(1), PP: 44-55

ISSN: 2617-0078 (Print), 2617-0086 (Online)

Corporate Governance Characteristics and Intellectual Capital of Listed Non-Financial Firms in Nigeria

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Abstract

This study investigated the influence of corporate governance characteristics among listed non-financial firms on the Nigerian Stock Exchange. The population of the study consists of one hundred and forty-nine (149) listed non-financial firms of which purposive sampling technique was used to select sixty-four (64) firms having adequate information needed for the study in their annual report from 2010 to 2019. The study used multiple regression analysis to investigate the influence of board size, board meeting, and board independence on intellectual capital. The study found that board size, board meeting, and board independence has a negative relationship with intellectual capital. While, firm size has positive and significant association with intellectual capital among non-financial listed firms in Nigeria. Therefore, it was recommended that regulators should implement a standardized guideline for intellectual capital disclosure to establish consistency in reporting information and to lower the cost of agency by improving the policies and practices of corporate governance systems.

Keywords: *Board Independence, Board Meeting, Board Size, Firm Size, Intellectual Capital*

1. INTRODUCTION

The strategic role of intellectual capital (IC) in the development of contemporary corporate business around the world cannot be overemphasized. IC is an essential driving force behind the development of modern corporations. Intellectual capital is a key driver of firm profitability and growth and it is an important aspect of strategic management used for value creation by corporate entities in order to retain their loyal customers. In the contemporary business world, intellectual resources such as employee skills, knowledge, capabilities and non-visible resources play prominent role in the survival of any business. Chahal and Bakshi (2015) submitted that IC plays a prominent role for corporations to generate good profit and enhance their strength. Several evidences have revealed that intellectual capital serves as important driving force behind firms financial (Mohammad, Bujang & Hakim, 2018; Nimtrakoon, 2015; Tran & Vo, 2018) and non-financial performance (Pourmozafari, Heyrani & Moeinadin, 2014). Amin and Aslam (2017) also submitted that more efficient intellectual capital triggers better organizational performance.

The resource based view theory introduced by Penrose (1959) also provides theoretical explanation for the crucial role of intellectual resources on the growth and sustainability of a firm. The theory argued that the main force behind financial performance of a firm is its resources comprising both tangible and intangible assets. Intellectual capital helps an organization to sustain its competitive advantage (Pourmozafari *et al.,* 2014). This is due to the fact that intellectual capital is usually unique resources to an organization which are rare and imperfectly imitate by competing firms. These characteristics (inimitable, valuable and uniqueness) create value addition which assists an organization to maximize the organizational outcomes. IC helps an organization to attain competitive advantage since the resources are usually valuable, rare, hard to be replicated and mimicked by competitors and not substitutable (Barney, Wright & Ketchen Jr, 2001; Ljubojevic, Ljubojevic & Maksimovic, 2013). Intellectual capital is hence the major and strategic asset for an organization (Soheyli, Moeinaddin & Nayebzadeh, 2014; Saruchi, Zamil, Basiruddin & Ahmad, 2019).

The corporate business is now lean towards knowledge based resources which depends majorly on the firms human and structural capital. In fact IC has become an advance tool to measure firm performance as against the traditional financial measures. Gan and Saleh (2008) submitted that the rapid changes in business environment have rendered the use of financial measures to measure firm performance incomplete.

Over the years, the world has witnessed the collapse of major corporate businesses such as the En-ron, WorldCom and Parmalat. The case is not different in Nigeria as information from the Nigeria stock exchange indicates that not less than 109 corporate firms were delisted between 2002 and 2019. The companies include UTC Nigeria Plc which was delisted in 2017, Albarka Airline Plc which went out of business in 2011 and Nigeria Textile Mills Plc which voluntarily delisted from NSE in 2008 among others. Opinion in section of literature is that the business organizations that survive the complex and dynamic world of business paid adequate attention to their IC which remains a key business resource that organizations can leverage on to gain competitive advantage (Ekwe, 2013).

The prevailing corporate failure around the world and existence of ample evidence suggesting that intellectual capability of firms can help to mitigate corporate crisis and failures especially in the world characterized with resourced based system have made the role of intellectual capital to be more essential to corporate organizations. By implication, firms are becoming conscious of the inability of only the physical capital to drive the needed growth in an organization, hence given attention to intangible asset popularly referred to as intellectual capital. Thus, understanding the intellectual capability of firms and its fundamental determinants are of obvious importance in contemporary business world.

Even though several empirical evidences have been documented on the impact of intellectual capital on organizational performance, not much has been done on the fundamental determinants of intellectual capital of firms. However, some scholars are beginning to consider corporate governance as driver of firm intellectual capability. Their argument is hinged on the ability of the corporate governance to create, develop and leverage IC embedded in the people, processes and structure within an organization (Keenan & Aggestam, 2001). Hence, managing an organization IC requires noteworthy advancement, observations and adaptability in the leadership process which are likely to be found in a more diversified board (Aslam & Haron, 2020; Arifin, 2016; Kamath, 2019).

Several studies have documented crucial role of corporate governance in effectively deploying, protecting and sustaining intellectual capital in an organization (Aslam & Haron, 2020, Basyith, 2016, Mahmudi & Nurhayati, 2015; Nawaz, 2019). It has been argued in some quarters that corporate governance is the main determinants of intellectual capital due to its ability to function as a system to direct and control a firm with the aim of striking balance between the power and authority (Widiatmoko, Indarti & Pamungkas, 2020). There is however lack of consensus as to the appropriate governance code to achieve intellectual capital efficiency implying that corporate governance code for efficient intellectual capital varied according to different cultural and socio-economic contexts. Hence, this study examined the influence of some corporate governance variables namely board size, board independence, board meeting and audit committee size on intellectual capital using samples of listed non-financial firms in Nigeria between 2010 and 2019.

The outcome of this study would be of immense benefit to various stakeholders including managers, standard setters, policy makers and shareholders who have interest in designing appropriate corporate governance mechanism capable of providing sustainable intellectual capital in the firms. In particular, the outcome of this study is expected to provide a useful insight into how corporate governance variables can help to overcome skill deficiency in corporate entities. It will guide the regulators in the country on how corporate governance code can be modified towards achieving an enhanced intellectual capital in Nigeria corporate entities.

2. LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Intellectual Capital

The term intellectual capital has been defined in various ways by different authors in literature. Steward (1997) defined intellectual capital as the intellectual material and property, knowledge,

experience and information that can be used to create wealth. A more broader definition was suggested by Mention (2012) who defines intellectual capital as ña set of internal and external resources, including human process (IT-based or enabled) that organization mobilize and articulate, through activities, with other resources (financial and tangible) in order to further generate resources which can be of tangible, intangible or financing nature, in their pursuit of competitive advantageò. By implication, intellectual capital encompasses intangible assets including knowledge, experience, customer relationship and soft infrastructure that drive the organization performance through creation of value addition and sustained competitive advantage.

A major obstacle to research efforts on intellectual capital is how to measure the concept as the measure used may influence the results of empirical analysis (Aslam & Haron, 2020; Widiatmoko et al., 2020). In general, the diverse definition has led to the identification of three essential elements of IC which are human capital, structural capital and relational capital (Mention & Bontis, 2013; Morariu, 2013) and on the basis of these elements, four measures are mostly used to proxy intellectual capital in empirical research which are human capital efficiency, structural capital efficiency, relational capital efficiency and value added intellectual capital efficiency which is the sum of the previous three (3). Each of the components is presented below:

Structural Capital: This is also called organizational capital and it represents the form of intellectual capital, which is an embodiment of the organization corporate culture, technology systems, intellectual property, the management process and learning capacity (Alhassan & Asare, 2016).

Relational Capital: This is otherwise called external capital and it constitutes the relation that the organization has with external constituents including suppliers, customers and joint ventures (Meles, Porzio, Sampagnaro & Verdoliva, 2016; Ordonez de Pablos, 2003). Examples of relational capital include corporate image, customer loyalty and distribution channels (Mubaraq & Ahmed Haji, 2014).

Human Capital: This entails the experience, skills and knowledge base of an organization (Edvinsson & Stenfelt, 1999). Evidence in the literature reveals that human capital is unarguably the principal component of intellectual capital owned by a firm (Pasban & Nojedeh, 2016). Aslam and Haron (2020) opined that human capital is the most important intellectual capital of an organization. Hence, this study would rely on HCE to proxy IC.

2.1.2 Corporate Governance

The term corporate governance (CG) has been defined variedly in literature. All the definitions have however yet to produce universally acceptable definition of CG particularly due to the continually expounding scope of the subject (Roche, 2005). Anis (2013) for instance described it as a set of rules which defined the relationship between shareholders, managers, creditors, the government, employees and other internal and external stakeholders in respect to their rights and responsibilities. OECD defined it to be a system by which business organizations are directed and controlled and the corporate governance structure encompasses the distribution rights and

responsibilities among different stakeholders in a corporation including the board, managers, employee, shareholders and other participants and established rules and procedures for making decisions on corporate affairs (Akingunola, Adekunle & Adedipe, 2013). It serves as the channel through which disappointment on part of management which originates from abuse of corporate governance code can be resolved (Aslam, Kalim & Fizza, 2019). From the foregoing, CG represents the widely known avenue through which an organization can be lead towards sustainable path. Hence, every organization needs to contribute, collect and set useful governance framework controlled by knowledge-based system (Aslam & Haron, 2020).

Corporate governance has been represented in various ways in literature. While some have used comprehensive measures such as corporate governance perception index (Attarit, 2016), majority of the extant empirical literature have represented corporate governance through the board characteristics particular in intellectual capital research based on the argument that larger and diversified board tend to develop and efficiently utilize IC resources towards attaining organizational growth and developments. In addition, few studies have represented corporate governance from the perspective of ownership structure (Aslam & Haron, 2020; Kamath, 2019; Mahmudi & Nurhayati, 2015; Widiatmoko et al., 2020) while others have used subcommittee characteristics (Chou & Buchdadi, 2017; Morariu, 2013). Irrespective of the measure used, studies have generally shown that corporate governance is associated with better IC performance (Aslam & Haron, 2020; Attarit, 2016; Kamath, 2019; Widiatmoko et al., 2020). Hence, this study investigates the influence of board size, board independence and board meeting on intellectual capital.

Board Size

Board size represents the total number of directors that constitute a board of firm. Larger boards are naturally expected to attract varied experience and expertise. It is thus expected that larger board size would be associated with higher level of transparency, innovative practices and better monitoring compared to smaller board size which are usually characterized with secrecy. There are however contrasting argument on how board size affects intellectual capital. On the one hand, it is argued that smaller board size promotes intellectual capital. This view is premised on the argument that small boards tend to be more involved in the operations of an organization and decision-making process that enhances the organizational efficiency (Aslam & Haron, 2020). In addition, Tulung and Ramadani (2018) argued that larger boards have tendency to be eluded with needed coordination and cohesive decision making which can substantially limit their ability to stake strategic decision that can positively affect organizational outcome. On the other hand, it is argued that larger board is embedded with pool of diversified skills which can enhance the monitoring capacity of the board towards achieving sustainable organizational outcome (Abeysekera, 2010).

Board Independence

This indicates the degree to which board is comprised of independent minds which makes it difficult for the activities of the board to be subjected to interference by the management. The non-executive directors are expected to monitor the activities of the management but do not naturally involved in the day to day running of the business. Thus, high composition of non-

executive indicates more independent board. The professional competence and aptitude of independent director help to improve the quality of decision making of the board including those related to investment in intellectual capital. In addition, by ensuring that management decisions align with the interest of the shareholders, independent directors play crucial role in mitigating the agency problem. Hence, management gauges the competence and effectiveness of the board in terms of the proportion of independent directors in the board (Aslam et al., 2020). Independent board is expected to bring in substantial experience, expertise, and objectivity which guide them not to succumb to the management self-interested objective of financial performance such as profit maximization only. Hence, board independence is expected to promote intellectual capital in a firm.

Board Meeting

Frequency of board meeting to an extent indicates the extent to which the board is active. In particular, it reflects the extent to which the board is actively pre-occupied with issues relating to policy formulation, implementation and monitoring of firm performance (Kamath, 2019). Regular attendance at board meeting by members is expected to strengthen membersô commitment and functioning of the board. By implication, higher board meeting frequency is expected to bring about better IC performance.

2.2. Theoretical Review

This study is anchored on the stakeholder theory. The evolution of this theory is credited to Philosopher and professor of business administration, Edward Freemanôs 1983 who published an article titled ñStrategic Management: A Stakeholder Approachò (Freeman, 1983). Stakeholder theory is considered one of the key theories for accountability and stakeholder management which tries to establish positive relationship with stakeholders by managing their expectations and objectives (Solomon, 2010). The theory is based on the presumption that every firm has external and internal stakeholders. While the later include corporate directors, managers and employees, the former comprises auditors, vendors, creditors, and community and government agencies. The theory emphasizes the important of different stakeholders in an organization as against shareholder-centric view of the shareholder theory and each of the stakeholders plays distinct role for the achievement of corporate entities overall goal. It provides direction on how corporation can mitigate or reduce conflicts among stakeholders including the third parties that have some level of dependence on the firm. The theory opined that each of the stakeholders has influence on how the firm operate though not all stakeholders are directly involved and they are concerned with the company activities on the presumption that corporation will deliver certain expectations including pay check, dividends, bonus, additional job, others or tax revenue.

In line with the resource dependence view, the achievement of the goal cannot be materialized without adequate internal and external resources available to the firm of which intellectual capital is a major component. The general assumption of stakeholder theory is that the firm operates within a complicated multi-party environment and these parties, which are called stakeholders, are either affected by or affecting the business. In line with the theory, among the major stakeholders of an organization is the board of directors that control the corporate governance of the organization while the intangible assets such as employees is another major

stakeholder of the corporation. According to the theory, an organization tends to be more successful when it delivers value which may come in different forms beyond financial benefit to its various stakeholders. In addition, drawing on the stakeholders perspective, the board of directors would recognize that the work force are central to the achievement of their goal and thus will ensure improvement in the mental health of the workforce through increase job satisfaction. Independent directors are for instance credited with the responsibility of monitoring the insiders. Moreover, companies that are that characterized with more effective board and by extension good corporate governance may find them in better position to monitor the activities of the intangible assets such as intellectual capital which result in a better utilization of these assets and their efficiency than companies that have comparatively lower corporate governance system. The stakeholders theory has been used to link corporate governance with intellectual capital elsewhere (Aslam & Haron, 2020; Mubaraq & Ahmed Haji, 2014).

Even though this theory is regarded has been problematic because of the difficulty in satisfying the interest of the diverse stakeholders (Blattberg, 2004), it is regarded to be more realistic than the shareholder theory

2.3. Empirical Literature Review

Board Size and Intellectual Capital

Substantial literature had empirically investigated the impact of board size on intellectual capital. A regression result of the study conducted by Alizadeh, Chashmi and Bahnamiri (2014) using sample of listed pharmaceutical companies on Tehran Stock Exchange between 2004 and 2009 revealed a significant negative impact of board size on human capital efficiency. Kamath (2019) revealed in a study of Indian corporate firms that board size is negatively related with human capital efficiency of large corporations. Other studies reported negative impact includes (Ahmed & Mohm Ghazal, 2013). Wang (2013) found significant positive impact of board size in Taiwan. Significant positive impact of board size was also reported elsewhere (Attait, 2016; Appuhami & Bhuyan, 2015; Faisal et al., 2016). Some others have reported no significant impact of board size. Saruchi et al. (2019) used a sample of 59 Islamic bank data between 2006 and 2017 and reported insignificant negative influence of board size on human capital. Al-Musalli and Ismail (2012) revealed no significant impact of board size on intellectual capital. Studies of banking sectors in Nigeria between 2006 and 2009 by Mubaraq and Ahmed Haji (2014) revealed no significant impact of board size on human capital. Thus, there are mixed results on the nexus between board size and intellectual capital in empirical literature.

Board Independence and Intellectual capital

Aslam and Haron (2020) examined the impact of internal corporate governance structure on intellectual capital efficiency of 129 Islamic Banks selected from 29 organizations of Islamic Corporation countries between 2008 and 2017 using two step systems GMM to analyse the data. The results of the study revealed that board independence exert significant positive impact on human capital efficiency. In a sample of service sector in Australia, Appuhami and Bhuyan (2015) reported significant positive impact of board independence on human capital performance. Wang (2013) reported positive and significant impact of board independence on

intellectual capital of listed firms in Taiwan. Mahmudi and Nurhayati (2015) reported significant positive impact of board independence on intellectual capital in Indonesia. Isa and Ismail (2015) found in a study of sample banks in Nigeria between 2003 and 2013 that board independence has significant positive impact on human capital performance. Some studies however reported no significant impact of board independence. Kamath (2019) for instance reported that board independence has insignificant positive impact on intellectual capital of Indian listed firms. The same result was reported by Alizadeh et al. (2014). Hence, there is no consensus on how board independence affects intellectual performance.

Board Meeting and Intellectual Capital

In a study of 129 Islamic banks in 29 OIC countries, Aslam and Haron (2020) reported significant positive impact of board meeting on human capital efficiency. Kamath (2019) found in a study to examine the impact of corporate governance characteristics on intellectual capital using a sample of 95 listed Indian firms that board meeting has significant negative impact on intellectual capital of larger firms but insignificant positive impact for smaller firms. Mahmudi and Nurhayati (2015) found, in a study of sampled firm in Indonesia, no significant impact of board meeting on intellectual capital. Saruchi et al. (2019) revealed in a study of 59 Islamic Banks between 2006 and 2017 that board meeting has insignificant positive impact on human capital efficiency. By implication, existing empirical research on the link between board meeting and intellectual capital has produced mixed results.

Control Variables

Kamath (2019) found in a study of listed firms in Indian that firm size is a significant control variable in the relationship between corporate governance and intellectual capital. Alizadeh et al. (2014) found significant positive impact of firm size on human capital performance among listed Pharmaceutical firms in Iran. Aslam and Haron (2020) reported insignificant positive impact of firm size on human capital efficiency of Islamic Banks in OIC countries. Saruchi et al. (2019) reported insignificant positive impact of firm size on human capital efficiency. Widiamako et al. (2020) found in a study of companies listed in Indonesian corporate governance forum between 2015 and 2018 using path analysis that firm size has insignificant negative impact on intellectual capital. For firm performance, Alizadeh et al. (2014) reported significant positive impact of return on asset on human capital efficiency in Iran Pharmaceutical companies. Isa and Ismail (2015) reported significant positive impact of profitability on intellectual capital of listed banks in Nigeria between 2003 and 2013.

From the foregoing, despite that research effort on intellectual capital is relatively new, substantial number of extant studies have been conducted on the link between corporate governance and intellectual capital. However, these studies reported conflicting results making it unreasonable to apply a uniform corporate governance code to achieve desired intellectual capital in different context. In addition, the review indicates that all the studies focus on countries other than Nigeria with the exception of who used sample of banking sector. Thus, this study advances literature by using sample of listed non-financial firms in Nigeria to study the influence of corporate governance variables on intellectual capital in Nigeria.

3. METHODOLOGY

The ex-post facto research design was employed for this study. To investigate the relationship between dependent and independent variables, panel data analysis was used. The population of the study consists of all one hundred and forty-nine (149) non-financial listed firms on the Nigerian Stock Exchange. The sampling technique used in this study was purposive sampling technique. This sampling was used to select sixty (64) firms having adequate information (annual reports) needed for the study from 2010 to 2019. The study used descriptive statistics and inferential statistics (correlation and regression analysis) to analyze the data of the study.

Measurement of Variables

The dependent variable is intellectual capital, while independent variables are board size, board meeting and board independence.

Table 1. Variables and their descriptions

Variables	Description	Source	Apriori Expectation
Dependent Variable			
Intellectual capital (IC)	Value added intellectual coefficient. Measured with sum of capital employed efficiency plus human capital, and structural efficiency	Aslam and Haron (2020); Kamath (2019)	
Independent Variable			
Board Size (BODS)	Number of members in board of directors	Wang (2013)	+ve
Board Meeting (BDMET)	Number of meetings held by board of directors	Kamath (2019)	+ve
Board independence (BODI)	Proportion of non-executive director to total member of the board	Appuhami and Bhuyan (2015)	+ve
Control Variables			
Firm size (FSIZE)	Natural log of total assets of the company	Aslam and Haron (2020)	+ve

Source: Author's Computation (2020).

Model Specification

To investigate the influence of corporate governance characteristics on intellectual capital, the following regression model was used:

$IC_{it} = \beta_0 + \beta_1 BODS_{it} + \beta_2 BDMET_{it} + \beta_3 BODI_{it} + \beta_5 FSIZE_{it} +$ Ů$_i$é é é é é é é é é é . (1)

Where;

IC = Intellectual Capital
BODS= Board Size
BDMET= Board Meeting
BODI = Board Independence
FSIZE = Firm Size

4. RESULTS AND DISCUSSIONS

Descriptive Statistics

Result in Table 2 shows that the mean for intellectual capital measured with Value Added Intellectual Coefficient (VAIC) has a mean of 4.920 and standard deviation of 6.464 respectively. It can also be deduced that the minimum and maximum values are -83.986 and 80.225 respectively.

Table 2 shows that board size (BODS) has a mean and standard deviation of 9.042 and 2.666 while the minimum and maximum values are 4 and 19 respectively. This implies that most of the companies under study have more than the minimum numbers of member of two (2) stipulated for listed companies on their board. Result also shows that board meeting (BDMET) has mean and standard deviation of 4.706 and 1.964 while minimum and maximum values are 1 and 44 respectively. This result implies that board meeting has a slight deviation from the mean and that companies met frequently for effective decision making.

Table 2 shows that the mean and standard deviation for board independence are 66.837 and 16.778 while minimum and maximum values are 0 and 94.444. The result implies that there is adequate number of non-executive member among the board of director for efficiency of business operation.

Table 2. Summary of Descriptive Statistics

Variables	Mean	Std. Dev.	Minimum	Maximum
VAIC	4.920	6.464	-83.986	80.225
BODS	9.042	2.666	4	19
BDMET	4.706	1.964	1	44
BODI	66.837	16.778	0	94.444
FSIZE	0.248	0.2997	-1.609	5.954

Source: Output from STATA 14

Correlation and Multicollinearity Test

Correlation shows the direction of the relationship between variables in a study. Table 3 shows the correlation coefficient between variables of the study. It can be observed from Table 3 that there is low positive correlation between board size and intellectual capital. Table 3 also shows that there is low negative correlation between board meeting and intellectual capital. Board independence as shown in Table 3 has a weak negative correlation with intellectual capital.

Furthermore, Table 3 shows that there is good positive correlation between firm size and intellectual capital among non-financial listed companies in Nigeria. Result in Table 3 shows

with variance inflation factor (VIF) and tolerance (1/VIF) indicates that multicollinearity problem does not exist in the current study.

Table 3 Correlation Matrix and Multicollinearity Test

	VAIC	BODS	BMET	BODI	FSIZE	VIF	1/VIF
VAIC	1.0000					-	
BODS	0.0778	1.0000				1.07	0.930601
BDMET	-0.0729	0.1542	1.0000			1.03	0.974930
BODI	-0.0350	0.1522	-0.0115	1.0000		1.03	0.974481
FSIZE	0.6156	0.1485	-0.0150	-0.0033	1.0000	1.02	0.977135
MEAN VIF						**1.04**	

Source: Output from STATA 14.

Regression Analysis

Table 4 shows the result of regression diagnostic tests conducted, which serve as a guide on the conduct of the multiple regression analysis. It can be deduced that there is no first-order autocorrelation. Table 4 shows that random effect regression is best for the data under study and that data are normally distributed.

Table 4 Regression Diagnostic Test Results

Test	Test Type	Value	P value	Conclusion
Systematic Difference	Hausman	1.03	0.9052	Random effect is better
Autocorrelation	Wooldridge Test	2.179	0.1740	No first-order autocorrelation
Normality	Shapiro-Wilk W	0.93473	0.07305	Data Normally Distributed

Source: *Authors Computation, using STATA 2021.*

Based on the result of Hausman Test with p-value of 0.9052 in Table 4, it shows that random effect regression is better for the study. Result of random effect regression analysis in Table 5 shows that there is negative relationship between board size and intellectual capital. This result indicates that board size negatively influences the intellectual capital among non-financial listed firms in Nigeria. This study is in line with findings by Alizadeh, Chashmi and Bahnamiri (2014) conducted using sample of listed pharmaceutical companies on Tehran Stock Exchange which found a negative impact of board size on intellectual capital measured with human capital efficiency. This result is also in line with Kamath (2019) which found that board size is negatively related with human capital efficiency of large corporations.

Results of the study maintain that board meeting has negative influence on intellectual capital among non-financial listed firms in Nigeria. This result implies that the higher the number of meeting held by the firms, the less would be the efficiency of human capital utilized for the growth of the firm. This result is in tandem with the study by Kamath (2019) in a study of sample of 95 listed Indian firms that board meeting has a negative influence on intellectual. This

study failed to support the findings by Aslam and Haron (2020) which reported significant positive impact of board meeting on efficiency of human capital.

In addition, Table 5 shows that in the case of non-financial listed firms in Nigeria, there is a negative association between board independence and intellectual capital. This implies that having more non-executive members among the board will reduce the efficiency of human capital due to varying decision that may arise as result of different opinions of members. The result failed to support the study by Mahmudi and Nurhayati (2015) which reported significant positive impact of board independence on intellectual capital.

Furthermore, result of the study in Table 5 shows that there is positively significant relationship between firm size and intellectual capital of non-financial listed firms in Nigeria. This result is in line with the study by Kamath (2019) and Alizadeh et al. (2014) which found a significant positive impact of firm size on human capital performance.

Table 5. Result of Random Effect Regression Analysis (Robust)

Variables	Coefficient	z-value	p-value
BODS	-.0232965	-0.30	0.765
BDMET	-.013552	-0.08	0.937
BODI	-.0127526	-1.05	0.292
FSIZE	13.22659	19.57	0.000
Number of Obs		640	
R Squared		0.3852	
Prob ˛ X^2		0.0000	

Source: Authors Computation using STATA 2021

5. CONCLUSION AND RECOMMENDATIONS

Corporate governance framework is a mechanism which strengthens the capacity of the firms in disclosing important information for effective decision making. Subsequently, good corporate governance improves financial statements by revealing information about intellectual capital which signifies the capacity of firms in management of their own resources and reflecting their worth. The current study focuses on the influence of corporate governance characteristics on intellectual capital among non-finance listed firms in Nigeria. Based on the results of the study there is a positively significant relationship between firm size and intellectual capital. This research expanded the previous findings by using a larger sample. Therefore, this paper is significant as it aims to add empirical evidence to the literature regarding the intellectual capital and corporate governance in Nigeria and developing countries.

Therefore, it was recommended that regulators should implement a standardized guideline for intellectual capital disclosure to establish consistency in reporting information and to lower the cost of agency by improving the policies and practices of corporate governance systems. This research was undertaken using non-financial listed firms in Nigeria; hence, the sample size is limited as opposed to the total companies listed. Furthermore, although some companies did not have a website, others did not have reported financial records on their websites. Therefore,

further research investigating all sector of Nigerian economy should be conducted to ensure generalization of research findings.

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