



The Effects of Boards Composition, Rewards and Ownerships on Intellectual Capital Efficiency of Banks in Nigeria

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Abstract

This paper examines the impact of corporate governance mechanisms on intellectual capital efficiency (ICE) of Nigerian Banks. The data for the study were generated from the audited financial statements of the sample banks for the period of 11 year (2003 - 2013). The study adopted Value Added Intellectual Co-Efficient (VAIC) methodology which includes three ICE components: human capital efficiency, structural capital efficiency and capital employed efficiency. Corporate governance mechanisms considered in this study are Boards Composition, Managerial Rewards, and Ownership Structure. The study controls for the return on equity and leverage of banks. The regression results show that the corporate governance attributes considered in this study are good indicators of (ICE) because their impact are positively and significantly at less than 1% with R-square of 58% and adj R-square of 55%. Also the two control variables are significantly related with intellectual capital efficiency. This implies that corporate governance have significant impact on ICE of firms in the Nigerian banking industry. Therefore, the study recommends that board should acquire political skills which are necessary to effective governance. In order to improve ICE, board should make it as their responsibility to develop and sustain healthy relationships and maintain open, two-way communication with all constituencies of staff in order to incite their IC towards organization's success.

Keywords: *Banks, Corporate Governance mechanisms, Intellectual Capital efficiency, Nigeria.*

Introduction

In recent years, the growth of information and rapid development of technology has created great changes in all aspects of human life activities towards the knowledge-based economy. The pattern on the industrial economy where physical assets such as land, plant and machinery and capital play the dominant role also experienced a shift. Today's knowledge and information based economy created the critical role of intangi-

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ble assets and intellectual capital in contemporary industrial economy to such extent that they are considered, more than the past, as a competitive advantage (Mahmood, Ali & Shahin, 2013). In recent past, corporate worth is measured by the physical assets reported in the financial statements of the corporations but intellectual resources, as they are improved, are becoming basis for creating corporate value. Conversely, the value created by intellectual resources is not quantified and reported in the financial statements. The absence of this measurement could possibly explain the increasing disparity between book value and market value of corporate organizations (Kavida & Sivakoumar, 2009).

Corporate Governance (CG) on the other hand represents an essential part of operating corporate organization. The collapse of big corporations in the world such as the Enron, WorldCom, Parmalat and in Nigeria such as Assurance Bank, Hallmark Bank, Gulf Bank of Nigeria, Intercontinental Bank Plc, Oceanic Bank, International Bank to mention but a few have refocused the debate on the role CG in corporate survival and the indispensability of IC in corporate Financial management. Thus, the relationship of the dual represents lifeline for corporate survival and growth with CG considered as the foremost attractor of IC in organizations (Saifeddine, Jamali & Nourddine, 2009). CG is not only concerned with corporate efficiency a wide range of company strategies and life cycle development (Mohammed, 2012). The challenge of corporate authorities in the knowledge century is attaining best out of its IC as a major source of competitive advantage (Makki, 2010). Apparently, business organizations that survive the complex and dynamic world of business paid adequate attention to their IC as it has become an important business resource that organizations can leverage on to gain competitive advantage (Ekwe, 2013). In the face of this, banks in Nigeria steps-up efforts on improving their IC foundation. Nigerian banks now made employment qualifications to be at least second class honors degrees indicating that IC is significant their performance. This surge for recruiting better brains leads to the improved performance of banks witnessed in Nigeria nowadays.

In spite of the importance of IC in financial organizations only few studies paying attention on the association between corporate governance and intellectual capital of banking industry. This ought not to be so in view of the fact that the banking industry is a backbone of global economic development. Khalique, Shaari, Isa & Alkali (2012) argue that the banking sector can be a good sector for the research of IC and they documented that banking sector around the world has grown as knowledge concentrated sector in dynamic and competitive environment. Also, they supported that this sector is based on knowledge intensive and its entire staff are moreover are identical intellectually and professionally. Also, the banking sector is one of the main intellectual capital intensive and well regulated industries (Anis, 2013).

An increasing number of corporate executives, political leaders and academic researchers, have recognized the significance of a firm's IC to its performance and future viability. Outcomes from prior studies focused on returns from entities physical capital may be query in the future given that intellectual capital is possibly happen to be the fundamental factor in corporate growth and development (Williams, 2000).

Studies such as those of Anis (2013); Tsai, Yu & Wen (2013); Zahra & Zahra (2013); Sanni & Abdifatah (2014) have been carried out on corporate governance and intellectual capital at different times and in different parts of the world, most of which are

well documented but little or none is known about association between corporate governance and intellectual capital efficiency in Nigeria. These studies examine among other issues level of IC disclosures, IC and firms' performance with most studies' focused on IC disclosures. This paper seeks to fill this gap by empirical investigation of the impact of CG on IC efficiency in the context of money deposit banks listed on the Nigerian Stock Exchange (NSE).

Literature Review

Concept of Corporate Governance

There is no consensus on definition of CG as reflected in the varieties of definitions proposed by prominent scholars. For instance, Akingunola, Adekunle & Adedipe (2013) defined corporate governance as the establishment of an appropriate legal, economic and institutional environment that allows companies to thrive as institutions for advancing long-term shareholder's value and maximum human centered development. The corporation has to achieve this while remaining conscious of its responsibilities to other stakeholders, the environment and the society at large. Corporate governance according to Anis (2013) is seen as a set of rules that defined the relationship between shareholders, managers, creditors, the government, employees and other internal and external stakeholders in respect to their right and responsibility. In addition, OECD (as cited in Akingunola *et al.*, 2013) defined it as a system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as, the board, managers, shareholders and other stakeholders and spells out the rules and procedures for making decisions on corporate affairs. As stated earlier, corporate governance is not easy to define as a result of the continually expanding boundaries of the subject (Roche, 2005). Definitions differ according to the context and the cultural situations, Armstrong & Sweeney (2002) and the perspectives of different researchers. The primary mission of public companies is to create long-term value, which is accomplished through corporate governance structures. This mission is classified into value creation and value protection. In relation to value creation, the focus is on shareholders through the development of long-term strategies for sustainable performance, whereas the value protection goal concentrates on accountability in relation to the management and monitoring of a company to protect the interests of both shareholders and stakeholders (Rezaee, 2009). Management should be able to adapt itself in response to global competition. A perfect system of CG would give management all the right incentives to make value maximizing investment and financing decisions.

The Concept of Intellectual Capital

The concept of IC first appeared in a book published in 1836 by the economist Nassau (as cited in Jafari, 2012). It is widely accepted that IC is a most important and vital asset for the survival of organizations in a competitive environment. The IC of an organization consists of a number of different intangible resources such as employees' competences, skills, brands, patents, working environment, database, procedures, social values, intellectual property, industrial property and honesty (Khalique *et al.*, 2012). Attempts have been made by previous scholars towards developing a widely accepted definition of IC but no consensus was reached and as such there is no universally accepted definition of IC (Ekwe, 2013). For instance, Ekwe (2013) defined intellectual capital as the skill and knowledge acquired by people during their life time and

which can be useful for production of goods and services. Asgari (2013) sees it as the combined intangible assets which enables the company to function and see an enterprise as the sum of its tangible assets and intangible assets as expressed in the following formula: $\text{Enterprise} = \text{Tangible Assets} + \text{IC}$. Arafat & Shahimi (2013) defined it as a group of Knowledge assets that are owned and controlled by an organization that create value. Ahangar (2011) views it as an inventions, ideas, general knowledge, design approaches, computer programs and publications. A look at the definitions indicates that while writers are not agreed on a single definition there are some similarities among these different definitions. Virtually all the definitions are based on the principle that intellectual capital is the sum of intangible assets of an organization including human capital, structural capital and customer capital.

Achieving IC Efficiency through CG

The focus of this paper is on good CG attributes and their connections with IC efficiency using Value Added Intellectual Co-efficient (VAIC) developed by Pulic (2000) to prove these connections based on the assumption that board of directors are responsible for developing IC efficiency and to achieve maximum efficiency from IC to gain higher financial performance. For these reasons, Board composition, Rewards, and Ownership would be taken as firm level CG attributes while IC efficiency would be measured through VAIC methodology which provides standardized and straightforward measure for IC (Makki, 2010). The methods would use publicly available audited financial statement and thus increase reliability by internal and external stakeholders to check IC efficiency (Rahman, Rehman, Usman & Asghar, 2012; Tan, Plownnan & Hancock, 2007). It is argued that adopting good corporate measures like Rewards, and Ownership would align the interest of the principal and the agent and thus motivate the management positively to improve financial performance. Agency theorists argue that better firm performance can be achieved through good governance practices which would provide better monitoring and protection to all stakeholders, (Anis, 2013; Mohammed, 2012; Lai & Bello, 2012; Muraina, Okpara & Ahunanya, 2010). The authors are of the opinion that good corporate governance attribute are connected with better intellectual capital performance. While inefficiency or poor intellectual capital performance could be seen as a consequence of poor CG measures, with effective governance system, CG are directed toward improving their managerial performance and maximizing the corporate value. Considering these arguments, CG measures are considered to have good impact on IC efficiency and consequently, influence financial performance of an organization.

Development of Research Hypotheses

Managerial Ownership (MO): Management boards, plays important role in implementing good CG measures. Management teams usually comprise of expert in specific industries and monitor the top managers, who take corrective actions, replace weakly performing managers and decide on managers' compensation. Proponents of agency theory argue that if the interest of executive directors and outsiders are well aligned, it may reduce the agency cost and enhance performance. This interest can be aligned by giving attractive percentage of shares to directors. There are various studies which show that percentage share of directors' plays significant role towards intellectual capital efficiency of an organization while others find it insignificant. It can be argued that when directors hold little equity in the firm, they may be tempted to exploit

the asset of the firm in their own interest by maximizing value created by intellectual capital. Anis (2013) investigated the influence of CG mechanisms in facilitating the relationship between IC efficiency and corporate performance in Indonesian banking industry where he measured IC efficiency by VAIC and performance measured by Tobin's Q, ROA and ROE. The findings indicated that IC efficiency and CG attributes are significantly influence the corporate performance of in Indonesian banking. Tseng & Lin (2013) conducted an empirical study on the relationship between CG and IC of Taiwanese electronics manufactures during 2001-2005. Time-series cross-section panel data were employed, the empirical findings demonstrates that, there is a significant relationship between management equity holding and Intellectual capital. Also, Makki (2010) who studied the impact of CG and ICE on Financial performance found similar relationship.

Zanjirdar & Kabiribajadeh (2011) examined the relationship between ownership structure and performance of intellectual capital in the stock market of Iran. The results of hypothesis tested, using simple and multiple linear regression, indicates that managerial investors decrease the performance of companies' intellectual capital. Based on the evidences from literature, it is assumed that directors with good number of equity holding would impact positively on intellectual capital efficiency. Thus, the first hypothesis is derived:

H₁: managerial ownership has positive impact on IC efficiency

Board Composition: Board of directors is recognized as important mechanism for protecting the interest of the different stakeholders (Fama & Jensen, 1983). The proponent of agency theory argues that if executive directors and managers are well supervised by the board, it reduces the agency cost. This can be achieved through harmonizing the board of directors having greater part of independent non-executive directors to control the opportunistic behaviour of executive director. They further argue that the larger the number of non-executive directors on the board the better they can play their role in monitoring and controlling the activities of insiders (Jensen & Mecling, 1976). Moreover, potential investors while making investment decisions give value to the ratio of board composition in an organization (Makki, 2010). Rosenstein and Wyatt (1990) show that market reward firm for appointing outsider directors. Literature reviewed also shows mixed relationship between independent of non-executive director on the board and corporate value. Sanni & Abdifatah (2014) examine the impact of CG attributes on IC disclosure in the Nigerian banking sector found that independent boards composition have a significant positive association with the overall amount of IC disclosure. Zahra, Nasorullah & Zahra (2013) while examined the relationship between CG mechanisms and the level of IC disclosure by Tehran listed companies for 4-years found a positive correlation between IC disclosure and board independent. Also, Al-Musali & Ismail (2012) examined the level of IC performance of listed banks in Arab Gulf Cooperation Council (GCC) Countries using VAIC methodology and investigate the impact of some CG attributes on IC performance shows that independent directors have significant relationship with IC performance. Williams (2000) conducted an empirical relationship between board structure and a firm's IC performance failed to find any support of an association between IC performance of South African Publicly listed companies and boards composition. Sunday (2008) in his study of 20 Nigerian listed firm for the period 2000-2006 concludes that outside director sitting on the board and two performance measures; return on equity, and profit margin have no statistically correlated. Literatures portray mixed relation be-

tween proportion of outside directors and firm performance. In this way, considering the ratio of boards composition as important measure of CG. Thus second hypothesis is:

H₂: Boards composition have positive impact on IC efficiency

Managerial Rewards: The proponents of agency theory explain that executive management will act opportunistically or speculatively to amplify their personal income after using their privileged position at the cost of other stakeholders. In this situation, Jensen & Meckling (1976) argued that this agency problem may be balanced through competitive pay practices that could align the interest of shareholders and management. A number of studies have identified a positive relationship between executive compensation and firm performance. Duc & Thuy (2013) conducted an empirical study on the relationship between CG and the performance of firms in Vietnam which indicate that elements of CG such as the compensation of board members have positive effects on the performance of firms, as measured by the return on asset (ROA). Tseng & Lin (2013) who empirically investigated the relationship between CG and IC of Taiwanese Electronic manufactures demonstrate that there is a significant association between managerial remuneration and IC efficiency. Makki (2010) found similar relationship while examining the impact of CG and ICE on financial performance in Pakistan. Furthermore, Brown & Caylor (2005) find that two governance factors; executive and directors compensation are significantly correlated with the firm valuation measured in terms of Tobin's Q. Therefore it can be argued that increase in executives' compensation is likely to have positive impact on IC efficiency which will ultimately enhance the financial performance. Considering the above arguments of, agency theory and literature support, it can be concluded that managerial rewards may likely to have positive impact on financial performance. Thus, the third hypothesis is:

H₃: Managerial rewards have positive impact on IC efficiency

Research Method

This study employed the ex-post facto research design which is based on the use of documented annual audited financial reports and accounts of the selected banks. The target populations for the study covers all the fifteen (15) banks listed on the Nigerian Stock Exchange (NSE) out of which seven (7) were sampled. For a bank to qualify for selection, two criteria were used namely, the bank must have been quoted on or before January 1st 2003 and also that it has annual reports and accounts for the period 2003 to 2013 that is it should not be delisted for the study period. The data for the study were obtained from the audited annual reports and accounts of the seven sampled banks for the period of 11 years from 2003 to 2013.

The variables of the study comprise of dependent, independent, and control variables. The independent variables are CG attributes (Board Composition (BC), Managerial Ownership (MO) and Managerial Reward (MR)). The dependent variable used in this research is IC efficiency which has been used in previous studies (Al-Hawary, 2011; Habbash, 2010; Aljifri & Moustafa, 2007) while control variables are Bank Leverage (BLEV) and Return on Equity (ROE). The dependent variable used in this research is determined using the Value Added Intellectual Coefficient (VAIC) developed by public in year 2000. It measures how effectively immobilized capital and intellectual capital contribute to the creation of business value for the firm, taking into consideration

three main elements: human capital efficiency, structural capital efficiency, and capital employed efficiency.

VAIC is value added (VA) accumulation from Human Capital (HC), Structural Capital (SC), and Capital Employed (CE).

Model Specification: The empirical regression model for this study to find out the impact of corporate governance mechanisms on intellectual capital efficiency is stated using Ordinary Least Square as follows:

$$ICE_{it} = \alpha_0 + \beta_1 MO_{it} + \beta_2 BC_{it} + \beta_3 MR_{it} + \beta_4 BLEV_{it} + \beta_5 ROE_{it} + \epsilon_i$$

The variables used in the model are adopted from the previous studies (Makki, 2010; Tseng and Lin, 2010).

VAIC is measured as HCE+SCE+CEE and ICE = HCE+SCE. CEE is an indicator of Value Added (VA) efficiency of capital employed (CEE=VA/CE); CE = (book value of total assets) - (intangible assets) = (financial assets) + (physical assets), HCE is an indicator of Value Added efficiency of human capital (HCE=VA/HC); HC = total salaries and wages, and SCE is an indicator of Value Added efficiency of structural capital (SCE=SC/VA), SC= VA –HC = (value added) - (total salaries & wages of employees). IC efficiency (ICE) is the sum of human capital efficiency (HCE) and structural capital efficiency (SCE). Total VA is calculated by using information contained in the annual report as follows:

Where: (ii) $VA = OP + EC + D + A$. OP = Operating Profits; EC = Total Employee Expenses; and D = Depreciation and A = Amortization.

Results and Discussion

Descriptive Statistics of the Study Variables

For better numerical understanding of the data, basic descriptive statistics are applied, although it does not tell us the whole story but describes the minimum, maximum, mean and standard deviation of all the study variables the dependent and independent variables. The dependent variable used in this study is intellectual capital efficiency (HCE, SCE and CEE), whereas the explanatory (independent) variables are percentage of management equity holding (% MEH), % of non-executive directors on board (% NEDB), and managerial remuneration (MR) and the control variables are Bank Leverage (BLEV) and Return on Equity (ROE).

Table 1. Descriptive Analysis of the Variables

Variables	No.	Minimum	Maximum	Mean	Std. Deviation
MO	77	.0003	1.1829	.17786	.2546
BC	77	.4000	.7500	.6387	.0909
MR	77	9.7410	15.7447	1.1871	1.3838
ROE	77	.0273	13.6013	3.0871	2.8031
BLEV	77	4.9150	235.9722	8.3013	62.5099
HCE	77	1.1842	11.2249	2.9581	1.6583
SCE	77	.1555	.9109	.5828	.17260
CEE	77	-2.3617	11.3382	.5370	1.3353
Valid N (listwise)	77				

Source: Computed by the author using (STATA Version, 11).

Table 1 presents the descriptive statistic of the study variables; however, in terms of Managerial Ownership (MO) by the board of directors of the sampled banks, it is observed that mean and standard deviation are 17.79% and 25.46% with a minimum and a maximum of 0.03% and 118.29% respectively. The deviation of MO by 26.46% and from a minimum of 0.03% to a maximum of about 118% support the agency theory which argued that the interest of directors and shareholders can be well aligned by giving attractive percentage of shares to directors. The argument is that when directors hold little equity in the industry, they may feel a temptation to exploit the assets of the firm in their own interest rather than maximizing value created by intellectual capital (Makki, 2010). The average and standard deviation of Board Composition (BC) for the sample of Nigerian money deposit banks measured by total number of non-executive directors divided by total number of directors are 63.86 and 9.09% respectively with a minimum of 40% and a maximum of 75%. The average of 63.96% suggests that, the Nigerian banks complied with exposure drafts of the revised code of corporate governance for banks in Nigeria issued by Central Bank of Nigeria (CBN) in April 2012 which state that executive directors of banks shall not be more than 40% of the entire board member. This implied that non-executive directors make up to 60% of the board of the banks.

The mean value and standard deviation of managerial rewards as measured by natural logarithm of the sum of director's fees or salary or remuneration are ₦11.87 billion and ₦1.38 billion respectively. The low standard deviation of ₦1.38 billion suggests that there is inconsiderable managerial remuneration which is not in line with literature and exposure drafts of the revised code of corporate governance for banks in Nigeria issued by (CBN) (2012) which state that levels of remuneration shall be sufficient to attract, retain and motivate executive officers of the banks. Of the control variables, the mean value of the return on equity (ROE) as measured by the operating profit divided by total equity capital is 3.09% with a minimum value of 0.03% and a maximum value of 13.60%. The standard deviation of return on equity is 2.80%. The variation between the mean and the standard deviation of the return on equity indicates that the ROE of each bank are not the same. On the other hand, the bank leverage of selected banks in Nigeria is ₦83.01 million on average as measured by total debt to total equity capital with a range of ₦4.92 million to a maximum of ₦235.97 million. There is lower deviation of 62.51% from the mean value of bank leverage.

Of the three components of intellectual capital efficiency, it is obvious that human capital efficiency (HCE) has the highest average of 2.96 with a standard deviation of 1.66 ranging from a minimum of 1.18 to a maximum of 11.22, followed by structural capital efficiency (SCE) with a mean of 0.58 deviated by 0.17 ranging from a minimum of 0.16 to a maximum of 0.91 and lastly by, capital employed efficiency (CEE) which has a mean of 0.54 with a deviation of 1.33 ranging from a minimum of -2.36 to a maximum of 11.34. Going by this description, it shows that human capital of the sample Nigeria banks are efficiently used compared to other indicator of intellectual capital efficiency.

Table 2. Correlation Matrix

	ICE	MO	BC	MR	BLEV	ROE
ICE	1.000					
SIG.	-----					
MO	0.060	1.000				
SIG.	0.602	-----				
BC	0.057	0.315**	1.000			
SIG.	0.621	0.005	-----			
SIG.	0.845	0.005	0.130			
MR	-0.023	-0.173	-0.302**	1.000		
SIG.	0.845	0.132	0.008	-----		
BLEV	-0.080	-0.369**	-0.442**	-0.007	1.000	
SIG.	0.487	0.001	0.000	0.953	-----	
ROE	0.508**	-0.374**	-0.413**	-0.128	0.569**	1.000
SIG.	0.000	0.001	0.000	0.269	0.000	-----

** Significant at 1%

Source: Generated by the Author using (STATA Version, 11).

Table 2, is the correlation matrix which shows the relationship among corporate governance variables (MO, BC, and MR), intellectual capital efficiency (ICE) and control variables (BLEV and ROE). It points out that all the corporate governance variables considered in this study have positive relationship with intellectual capital efficiency with the exception of managerial reward (MR) which is negatively related with intellectual capital efficiency. Although, MO, and BC have positive relationship with ICE yet their impacts are not significant because their significant levels are more than 5%, likewise the MR. The Pearson correlation coefficients of MO, BC, and MR reported in Table 2, are 0.060, 0.057, and -0.023 respectively. Of the two control variables ROE is positively and significantly related with ICE at less than 1% while BLEV is negatively and insignificantly related with ICE. Since correlation result only shows the level of relationship among the variables it follows by the regression result.

Regression Analysis of Corporate Governance & Intellectual Capital Efficiency

Table 3 shows the result of the regression analysis of corporate governance and intellectual capital efficiency.

Table 3. Summary of Regression Results

Variables	Coefficients	Std Errors	t-value	Probability
Constant	-5.553	2.457	-2.26	0.027
MO	2.084	0.872	2.39	0.019
BC	5.621	1.998	2.81	0.006
MR	0.201	0.084	2.41	0.019
BLEV	-0.012	0.004	- 2.96	0.004
ROE	0.651	0.081	8.00	0.000
R ²	0.5817			
R ² _{adj}	0.5458			
F-statistic	13.1000			
Prob. (F-Sign.)	0.0000			

Source: Generated by the Author using (STATA Version, 11)

From the table, the regression model is written as:

$$ICE_{it} = -5.553 + 2.084\beta_1 + 5.621\beta_2 + 0.201\beta_4 - 0.012\beta_5 + 0.651\beta_6 + \varepsilon_i$$

The impact of corporate governance on intellectual capital efficiency (ICE) based on the outlined regression equation is explained below.

MO which is proxied as sum of all directors shares divided by total number of company's shares has positive association with and intellectual capital efficiency. The Probability value of 0.019 indicates that association is significant at about 2% level. On the other hand, MO has positive co-efficient with value intellectual capital efficiency (ICE), which indicates that the increment in the value of share holding by the board of directors leads to increment in the value added efficiency from intellectual capital, which indirectly affect positively, intellectual capital efficiency of firms in the Nigerian Banking Industry. Table 3 also indicates that the t-value of MO is 2.39 indicating good predictors of intellectual capital efficiency.

BC which is proxied as total number of non-executive directors on board divided by total number of directors has positive impact on intellectual capital efficiency. The Probability value of 0.006 indicates strong impact because it is significant at less than 1%. On the other hand, BC has positive co-efficient with intellectual capital efficiency (ICE), which indicates that the increment in the BC leads to increment in the value added efficiency from intellectual capital which, indirectly affect positively intellectual capital efficiency of firms in the Nigerian Banking Industry. The t-value of 2.81 from Table 3 is indicating that NEDB is good predictor of intellectual capital efficiency.

MR which is measured as total directors' fees, or salary or remuneration, and it has a positive impact on intellectual capital efficiency. The Probability value of 0.091 indicates strong impact. Similarly, the t-value of MR is 2.41 from Table 3 indicating that MR is good predictor of intellectual capital efficiency. However, of the two control variables used in this study, ROE have positive and very strong relationship with intellectual capital efficiency because the probability is less than 1% significant level. Also, the bank leverage is negatively and significantly correlated with intellectual capital ef-

iciency. It implies that, the higher the bank leverage and return on equity the higher the efficiency of intellectual capital. In other words, the result indicates that bank leverage and return on equity have strong relation with efficiency of intellectual capital.

The co-efficient of determinations R^2 is 0.581 (58.1%) while R^2_{adj} is 0.546 (54.6%) indicating that the variables used in the model can only account for 58.1% of the variance in the dependent variables (intellectual capital efficiency), while the remaining 51.9% accounts for other corporate variable not considered in this model. The general level of significant is 0.000 which is less than 1%.

Conclusion

The objective is to determine empirically, the impact of corporate governance mechanisms on IC efficiency. From the foregoing analysis, it is obvious that corporate governance mechanisms have strong impact on intellectual capital efficiency among firms in the Nigerian banking industry. All the corporate governance variables are positively and significantly related with intellectual capital efficiency. This pattern of result is consistent with findings by both at national and international level. Based on the outcome of this result, all the hypotheses were accepted. These findings is agreed with what was documented by Sanni & Abdifatah (2014), Duc & Thuy (2013), Tseng & Lin (2013), Al-Musali and Ismail (2013) Makki (2010) and Brown and Caylor (2005) who established positive and significant relationship among %MEH, %NEDB, MR and intellectual capital efficiency. It however, contradicts the findings of Zanjirdar & Kabiribalajaden (2011), Sunday (2008), Williams (2000) who failed to establish any support of association between corporate governance mechanisms and intellectual capital efficiency. Finally, the paper recommends that board should acquire political skills which are necessary to effective governance. In order to improve ICE, board should make it as their responsibility to develop and sustain healthy relationships and maintain open, two-way communication with all constituencies of staff in order to incite their IC towards organization's success. This would enable board to understand and balance the multiple interests of diverse human resources while arriving at solution that sustain banking goodwill toward all human resources, sustained trust and undiluted loyalty.

This research is limited to money deposit banks that are listed on the floor of Nigerian Stock Exchange and its results may not be generalized to non-listed banks. The outcome of this study can be more robust, if future researchers could conduct further studies on the relationship between corporate governance mechanisms and IC efficiency by consider more corporate governance variables.

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