Impact of Intellectual Capital on Financial Reporting Quality of Selected Banks in Nigeria

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Abstract

The study examined the impact of intellectual Capital on Financial reporting quality of selected Banks in Nigeria. The specific objective of the study was to investigate the impact of Intellectual capital on financial reporting quality on selected Banks. A total of ten banks were selected for the study from 2006-2017. Regression analysis was used to do the analysis. They study made use of Value Added Intellectual Coefficient (VAIC) to ascertain the extent of intellectual capital indices while Fincial reporting quality is proxy by accrual which was calculated using Dechow and Dichev's(2002) model. The result indicated a positive impact on Fincial reporting quality. The study therefore concludes that Banks should pay more attention to the three intellectual capital variables to improve their financial reporting quality. The study recommends that the three variables of intellectual capital should be well handled in other to have higher quality of financial reporting quality and also provide enabling environment needed to achieve a vital human capital in their system.

Keywords: Intellectual Capital, Financial Reporting Quality, Nigeria Banks, Value Intellectual Coefficient, Dechow and Dichev model (2002)

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Introduction

One deterring factor of companies' success in the 21st century is intellectual capital. Recently new economies are shifting towards a knowledge based economy or knowledge economy (KE) in which companies competitiveness and sustainability are increasingly dependent of knowledge based resource. The dramatic shift from material source to knowledge, from hard ware to software is actually experiencing by companies across the world. Sudibyo and Basuki(2017) with the advent of knowledge-based economy knowledge or intellectual capital become more important in company with other production factors such as land ,capital and machinery, so that in this economy, knowledge is considered as the most important production factor and it is named as the most important completion advantage of organisations, Darabi,Radand Heideribali(2017).

There are various definitions for intellectual capital. Researchers have tried to define and explore different factors of intellectual capital. But the general indication is that intellectual capital is a non-monetary assets without physical existence but possesses value that can generate future earnings, Deepa and Subka(2015).Darabi , Rad and Heidaribali(2012) define intellectual capital as the development and application of source of knowledge in the companies. Therefore investors and creditors are interested in the intellectual capital and its components (human capital, capital employed and structural capital) which play an important role in decision making.

The search for the most appropriate method of measuring Intellectual capital, led Pulic Ante to develop the most popular method that measures the efficiency of value added by corporate intellectual ability (Value Added Intellectual Coefficient –VAIC) Pulic (1998, 2000a) The VAIC method measures the efficiency of three types of input: Capital employed (physical and financial), human capital and structural capital (Puntilo 2009, Williams, 2003.Pulic2000a)

The combination of financial report with intellectual capital improves the quality of financial reports. The quality of financial report, the accrual and validity to operations of companies as well as declaring all assets of companies including intangible assets and intellectual capital, inform users of no baryasis . According to Jone and Balanced (2000) financial reporting quality are fair and transparent financial information that is not designed to obfuscate or misled users. Financial reporting needs to provide useful data to help potential investors make logical decision. Therefore, intellectual capital in Organisation leads to good quality of financial statements, thus it will be really necessary for organisation to consider intellectual capital.

This study therefore investigates the impact of intellectual capital on the financial reporting quality of banks in Nigeria. According to Ekwe (2013) the choice of the banking sector is because in every country the banking sector plays a pivotal role in setting the economy in motion and in its development processes. Banks promote growth and success of business in both developed and developing countries and Nigeria banks have been noted for favouring graduates with second class honours degree(upper division) in their employment policies thereby giving weight to the fact that it is the intellectual capital that determines the quality of financial report. According to Kamath(2007), the banking sector is an ideal area for intellectual capital research because the banking sector is intellectually intensive and its employees are intellectually more homogeneous than those in other sector. Owing

to the level of intellectually transformation programmes and improvements in the Nigeria banking sector, this study examines the impact of intellectual capital on the financial reporting quality of selected banks in the banking sector.

Objective of the study.

The general objective of this study is to ascertain the impact of intellectual capital on financial reporting quality of Banks in Nigeria.
1. To determine the effect of Human Capital Efficiency (HCE) and Financial reporting Quality.
2. To examine the influence of Structural Capital (SCE) and Financial Reporting quality.
3. To assess the effect of Capital employed efficiency (CEE) and financial reporting

Research Questions.
1. How does Human Capital efficiency (HCE) affect Financial reporting Quality?
2. What effect has Structural Efficiency (SCE) on financial reporting quality?
3. To What extent does Capital Employed efficiency (CEE) influence Financial reporting Quality?

Research Hypotheses.

$H0_1$ Human capital efficiency has no significant effect on financial reporting quality.

Ho_2 There is no significant capital efficiency and financial reporting quality.

Ho_3 There is no significant and positive relationship between capitals employed efficiency and financial reporting quality.

2.0 Review of Related Literature.

According to IAS(38) intellectual capital has been define to include expenditure on advertising and marketing research and developmental activities, human resources expenditure, copy rights, Franchises , future interest, licenses, operating rights, patent, record master, secret processes, trademarks and trade names, organisational structure and values that come from brand names.

Edrinsson and Malone (2013) define intellectual capital IC as possession of knowledge applied experience, Information technology , customer relationship and professional skills that provide a company with a competitive edge in the market. In the word of Roos(2013) define I.C as the sum of company's member's knowledge and practical translations of this knowledge.

To summarize, intellectual capital lacks physical form, it cannot exist on its own but derives value from network effect, and it is claim on future assets.

Intellectual Capital and Its components.

Intellectual capital is said to have the following components
- Human Capital (HC)
- Structural Capital (SC)
- Customer/Relational Capital (RC)

Human Capital

Human Capital represents Knowledge of the individuals of an organization. Human Capital is interested as employed values creating potential depicted in the knowledge competencies, skills, experience, abilities and talents of firm's employees and managers .According to Mehrjardi(2016) describe it as mental agility which enables the individual to change the practices and thinking about innovative solutions for issues.

Structural Capital (organizational)

This is defined as knowledge assets that indeed company's property and includes intellectual property such as patent, copyright and trademarks processes methodologies, models; documents and other knowledge such as computer network and software, administrative system etc.

Customer/Relational Capital

This capital represents the value of current and ongoing relationship with individuals or organization that provides them with serves. Customers' capital indicators include market share, customer maintenance and profit .Irananed, Moeinaddin, Shahmoradi and Heyrani(2014). It is the knowledge embedded in relationship with customer, supplier's industry associations or any other stakeholder that influence the organisation's life.

2.1 Empirical Reviews

This study is to investigate the impact of intellectual capital on financial reporting quality.

Darabi, Rad and Heidaribali (2012) carried out a work on the impact of intellectual capital on financial reporting quality: evidence from Tehran Stock Exchange. A sample of 184 accepted companies in Tehran stock Exchange that work in deference industries between 2004 and 2009 was selected. Co-relational analysis and multiple linear regressions were used for the study. The result of the study shows that two components of Intellectual capital-Capital employed efficiency and human capital efficiency have significant positive effect on the dependent variable of financial reporting quality while structural capital efficiency has a significant negative effect on the financial reporting quality.

Payam Mojtakedi(2013) did a work on the impact of intellectual capital on earnings quality Evidence from Malaysian firms , the study made us of 100 Malaysian firms during the year 2000 and 2011.Mutiple regression and panel data analysis was used for the analysis. The study find out that intellectual capital has a positive and significant impact on Earnings quality.

Ghasempour and Yosof (2014) carried out a work on quality of Intellectual capital and Human resource disclosure on the firm Valuation. The study made use of 65 companies listed on Tehran stock Exchange in the period of 2005 to 2012. The result of the study showed that voluntary disclosure of intellectual capital and human resources information had a significant and positive impact on firm value

Hardeep and Purnima (2016) did a work on measurement of intellectual capital in the Indian Banking sector, sing 144 branches of 21 public and seven private commercial banks operating in India, all the three dimensions were found to significantly contribute to the intellectual capital among which relational capital contributed relatively more followed by human capital and structural capital. The research findings can help bank mangers in deterring how to generate value using human, structural and relational capital.

Abubakar,(2011) carried out a work on Human resources Accounting and quality of financial Reporting of quoted service companies in Nigeria. Descriptive and field survey research methods were employed in the study. Data were collected from the conduct of interview, administration of questionnaire and financial statement of selected quoted service companies. The date were analysed using Kendall's coefficient of concordance (KCC). The study finds out that human recourse Accounting has significant impact on Fincial reporting of quoted service companies in Nigeria,

Chen, Tang, Jiang and Lin (2010) did a work on the quality of accounting for the firms that are member of EU before and after accepting international standards of financial reporting in 2005. The study showed that the highest degree of accounting quality has been related to the period after accepting international standards of financial reporting.

Akinlo and Olayinola(2017) carried out a study on Human capital reporting and Corporate Earnings: Evidence from Nigeria. The study used secondary data from 2007 to 2014 collected from selected annual report of 50 listed manufacturing companies. Pooled least square were used in the analysis. The result shows that total earrings present a positive relation with the components of human capital but significant one with salaries and wages and Labour turnover.

Darabil,Rad and Ghadiri(2012) did a work on the relationship between intellectual capital and earrings quality. The study was conducted with 158 companies in Iran stock exchange .The result of the study shows that intellectual capital and its human capital components have a significant positive impact on earnings quality and its leads us to conclude that intellectual capital has a positive role in financial practice and reporting. Evidence from Nigeria. The study used secondary data fro 2007-2014 from selected Annual reports and Accounts of 50 listed manufacturing companies. The study shows that Total earnings have a positive relationship with the components of human capital, but a significant one with salaries and wages and labour turnover. It then suggests that capitalization of corporate investment on its human capitalization of corporate investment on its human resource has the aperture of increasing the total earnings of quoted manufacturing companies in Nigeria.

3.0 Methodology.
This section of the paper identifies and describes the proxies used both the dependent, independent variables. The regression equation is outlined at the latter part of the section. Data were computed from the annual report and accounts of banks of study for a period of eleven years (2006-2017).

Description of the Dependent Variable
Due to relative important of intellectual capital in organizational productivity, financial reporting quality is the dependent variable adopted in this paper using the Accrual Model.

Financial reporting Quality. Using the accruals consistent with Dechow and Dichev's(2002) model is used to measure the quality index of financial statements. The mentioned model is presented below

$$cAc = B + B_1 cf_{i+t} + B_2 cf_{it} + B_3 cf_{it} + B_4 \Delta S_{it}\ B_5 PPE + €$$

Where cAC is current accruals, ΔS is change in sales, CF is cash resulting from the operational activities of the firm in the years it, t, +t, PPE is the book value of property,(cost of price of property, plant and equipment minus accumulated depreciation) and€- CAC is error of assessment of accruals.

3.1 Description of the independent Variables.

The value Added intellectual Co-efficient basis for the independent variable in the study.

(VAIC) methodology developed by Ante Pulic in 19981 and Pulic 2000 formed the underlying basis for the independent variable in the study.

Most intellectual capital methods are criticized because the measure subjectively and cause many problems during measurement. (Sveiby2000; Williams2001).

Formulation of value added Intellectual Coefficient of Banks (VAIC) is as equation---------------- (1)

VAIC= HCE+ CEE+SCE

Where, VAIC is value added Intellectual Coefficient of the Banks.
  - ➢ HCE is Human Capital efficiency of the Banks
  - ➢ CEE is Capital Employed efficiency of the Banks
  - ➢ SCE is Structural Capital efficiency of the Banks.

The Ist step in Calculating CEE, HCE and SCE is to determine a firms Total VA.

This Calculation is defined by the following equation;

VA= I + DP+ W+ D+T+R--- (2)

Where VA (Value added) for the Banks are computed as the sum of interest expenses.

I is total interest expenses; DP is depreciation expenses; W is payroll; D is dividends; T is corporate tax and R is profit Retained for the Year.

CEE= VA/CE-- (3)

Where: CEC = Capital employed efficiency coefficient of the Banks

     VA= VA of the Banks and

     CE= Book value of the net asset of the Banks.

Based on opines of Sveiby(2001) Pulic(1998) that total salary and wages cost are and indicator of a firms Human Capital(HC)

HCE therefore is calculated as the ratio of total VA divided the total Salary and Wages spent by the firm on its employees.

HCE=VA/HC--- (4)

Where HCE= Human capital efficiency Coefficient of the banks

     VA= VA of the Banks and

     HC= Total Salary and wages Cost of the Banks.

To calculate SCE, it's to determine the Value of a firm's structural Capital (SC)

Pulic (1998) opined that Firms Total VA less Human Capital is an appropriate proxy of a firms SC.

This is

SC = VA –HC-- (5)

Where SC= Structural Capital of the Banks

     VA= VA of the Banks and

     HC= Total salary and Wages Expenditure of the Banks.

4.0 Results and Discussion

H0₁ Human capital efficiency has no significant effect on financial reporting quality.

Dependent Variable: FRQ

Method: Least Squares

Date: 05/13/19 Time: 11:11

Sample: 2006 2017

Included observations: 12

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CEE	0.603119	0.282386	2.135795	0.0054
C	7.394708	0.310114	23.84512	0.0000

R-squared	0.313263	Mean dependent var	8.051841
Adjusted R-squared	0.244590	S.D. dependent var	0.154672
S.E. of regression	0.134432	Akaike info criterion	-1.024505
Sum squared resid	0.180720	Schwarz criterion	-0.943687
Log likelihood	8.147031	F-statistic	4.561620
Durbin-Watson stat	1.758662	Prob(F-statistic)	0.005448

The regression results showed that the estimated co-efficient of the regression parameters have only positive sign. This sign means that the dependent variable is positively influenced by the independent variable and is

significant. The value of 7.394708 for **c.** represents what financial reporting quality will be without the independent variable in the model. The value 0.603119 for β_1 implies that holding all other factors constant, a unit increase in cost of free test will lead to 0.603119 increases in **Y** which is financial reporting quality. The R^2 tells the percentage variation in financial reporting quality explained by Human capital efficiency. By implication, the value 0.313263means that about 31% of the total variation in the dependent variable is as a result of changes in the independent variables, while 69% is unexplained. This remaining percent could be caused by other factors or variables not built in the model. Since the Durbin-Watson statistic is near 2, there is no evidence of first-order autocorrelation. The estimated F-value is significant at 5% level (because the p value is 0.005448).With this, we can reject the null hypothesis that human capital efficiency has no significant effect on financial reporting quality, we therefore conclude that human capital efficiency has a significant effect on financial reporting quality.

Ho2 There is no significant capital efficiency and financial reporting quality.

Dependent Variable: FRQ
Method: Least Squares
Date: 05/13/19   Time: 11:14
Sample: 2006 2017
Included observations: 12

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SCE	0.405355	0.200094	2.025824	0.0053
C	10.52228	1.220111	8.624033	0.0000
R-squared	0.290979	Mean dependent var		8.051841
Adjusted R-squared	0.220077	S.D. dependent var		0.154672
S.E. of regression	0.136596	Akaike info criterion		-0.992572
Sum squared resid	0.186584	Schwarz criterion		-0.911754
Log likelihood	7.955430	F-statistic		4.103964
Durbin-Watson stat	1.517431	Prob(F-statistic)		0.005293

The regression results showed that the estimated co-efficient of the regression parameters have only positive sign. This sign means that the dependent variable is positively influenced by the independent variable and is significant. The value of 10.52228 for **c.** represents what financial reporting quality will be without the independent variable in the model. The value 0.405355 for β_1 implies that holding all other factors constant, a unit increase in cost of free test will lead to 0.405355 increases in **Y** which is financial reporting quality. The R^2 tells the percentage variation in financial reporting quality explained by significant capital efficiency. By implication, the value 0.290979means that about 29% of the total variation in the dependent variable is as a result of changes in the independent variables, while 71% is unexplained. This remaining percent could be caused by other factors or variables not built in the model. Since the Durbin-Watson statistic is near 2, there is no evidence of first-order autocorrelation. The estimated F-value is significant at 5% level (because the p value is 0.005293). With this, we can reject the null hypothesis that significant capital efficiency has no significant effect on financial reporting quality, we therefore conclude significant capital efficiency has a significant effect on financial reporting quality.

Ho3 Capitals employed efficiency has no significant effect on financial reporting quality.

Dependent Variable: FRQ
Method: Least Squares
Date: 05/13/19   Time: 11:20
Sample: 2006 2017
Included observations: 12

Variable	Coefficient	Std. Error	t-Statistic	Prob.
HCE	0.935203	0.412149	2.269087	0.0046
C	6.328989	0.760224	8.325166	0.0000
R-squared	0.339880	Mean dependent var		8.051841
Adjusted R-squared	0.273868	S.D. dependent var		0.154672
S.E. of regression	0.131801	Akaike info criterion		-1.064034
Sum squared resid	0.173715	Schwarz criterion		-0.983216
Log likelihood	8.384205	F-statistic		5.148755
Durbin-Watson stat	1.090059	Prob(F-statistic)		0.004643

The regression results showed that the estimated co-efficient of the regression parameters have only positive sign. This sign means that the dependent variable is positively influenced by the independent variable and is significant. The value of 6.328989 for **c.** represents what financial reporting quality will be without the independent variable in the model. The value 0.935203 for β_1 implies that holding all other factors constant, a unit increase in

cost of free test will lead to 0.935203 increases in **Y** which is financial reporting quality. The R^2 tells the percentage variation in financial reporting quality explained by Capitals employed efficiency. By implication, the value 0.339880means that about 34% of the total variation in the dependent variable is as a result of changes in the independent variables, while 66% is unexplained. This remaining percent could be caused by other factors or variables not built in the model. Since the Durbin-Watson statistic is near 2, there is no evidence of first-order autocorrelation. The estimated F-value is significant at 5% level (because the p value is0.004643). With this, we can reject the null hypothesis that Capitals employed efficiency has no significant effect on financial reporting quality, we therefore conclude Capitals employed efficiency has a significant effect on financial reporting quality.

5.0 Conclusion and Recommendation.

The result of the data analysis showed that Intellectual capital on Financial Reporting quality was statistically significant. From the above result it is fair to conclude that Nigeria Banking sector make use and apply intellectual in their Fincial reports. The results further showed that Banks are statistically different in both the intellectual capital and its Fincial reporting quality. Constance and regular training of employees is also an aspect of the banks operation which is highly recommended because it is established that regular training will positively impact on the employee's performance and service delivery thereby boosting the Fincial reporting quality.

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