IJASRM
International Journal of Advanced Scientific Research and Management, Vol. 2 Issue 1, Jan 2017.
www.ijasrm.com
ISSN 2455-6378

Intellectual Capital Management and Organizational Performance in Selected Food and Beverage Companies in Nigeria

Apiti, Christopher Uzoma [1], Ugwoke, R . O [2] and Chiekezie, Njideka Rita [3]

[1] Department of Accountancy, University of Nigeria, Enugu State, Nigeria

[2] Department of Accountancy, University of Nigeria, Enugu State, Nigeria

[3] Department of Accountancy, Paul's University Awka, Anambra State, Nigeria

Abstract

This study examined intellectual capital management and organizational performance in Nigeria. The specific objectives of the research were to determine the relationship between intellectual capital and firm's financial performance and evaluate the impact of intellectual capital management on firm's financial performance. The study adopted ex-post facto design. Four companies were selected from food and beverage industry listed in the Nigerian stock exchange namely Guinness Nigeria Plc, Nestle Nigeria Plc, Unilever Nigeria Plc and 7up Bottling Company Plc. The research made use of purely secondary data from annual reports of the selected companies. Return on Asset (ROA) was used to measure the financial performance while Value Added Intellectual Capital Coefficient (VAIC^{TM}) and Intellectual Capital Efficiency (ICE) were used to measure Intellectual Capital. Pearson moment correlation coefficient was used to determine the relationship between intellectual capital and organizational reported financial performance, and linear regression was used to determine the impact of intellectual capital on organizational reported financial performance. The findings of the study show that there is a significant relationship between intellectual capital and firm's financial performance and that proper management of intellectual capital has an impact on firms reported financial performance.

Keywords: *Intellectual Capital, Intangible Asset, Organizational Performance*

1. Introduction

Every business requires resources in the form of physical, financial and intangible assets. Lack of, or inadequate resources of any kind may place a firm in a vulnerable position, and might undermine its success. In this period of national as well as global financial crisis, the study of the relevance of intangible assets has attracted much attention in the business management literature, because intellectual capital which is an aspect of intangible asset has that exerting influence of adding value to a firm and with its relational ability can facilitate the acquisition of other resources which promote the survival and profitability of a firm (Okafor, 2012). Intellectual capital refers to effort employees put into an entity in form of intangible asset which includes knowledge assets such as patents, trademarks, copy rights and other results of human innovations and thought. Collectively, it refers to all resources (human, structural and relational capital) that determine the value of competitiveness of an organization.

Intellectual Capital primarily drives wealth and growth in today's economy. The rise of new economy has highlighted the fact that the value created depends far less on their physical assets than on their intangible ones. These assets, often described as intellectual capital, are being recognized as the foundation of individual, organizational and national competitive-ness in the twenty-first century (Wiig, 1997; Bounfour & Edvinsson, 2005). As observed by Pike et al. (2002:659), "as the business society is developed, the key step in value creation has ascended an intellectual staircase". In this era, the competitiveness of a company is more important and it has become a basic building block for corporate excellence (Lim & Dallimore, 2004). The more the company values and discloses its intellectual resource/capital, the more it becomes competitive and retains confidentiality of its stakeholders (investors, & creditors). If intellectual capital is not disclosed, the book value of its share and market value will diverge (Okwy & Christopher, 2010; Holland, 2009). The study of Okwy & Christopher, (2010) reveals that millions of Naira are lost for non-disclosure of some of intellectual capital drivers/indicators. To be specific, the study further reveals that Nigerian Breweries Plc invested more than N88million in local and overseas training and development of its employees as far back as 1988; in 2006, Unilever invested over N40 million in training and development of its employees; Access Bank Plc in 2007 constructed Access Bank Campus called Access University of Banking Excellence; and Wema Bank Plc invested huge amount on policy, training and development of its employees. Surprisingly, these huge amounts of investments did not reflect in the balance sheet of these companies' annual reports. This shows glaring defects and shortcoming in the financial statement of companies in Nigeria particularly in not conveying the total value of asset invested. However, this can be corrected if the Accounting Regulatory Board issue statement of accounting standard in support of reporting the overall intellectual capital drivers/indicators in the financial statement.

IC to a reasonable extent is the building block for earning revenue for companies in banking, finance, hotel, and software etc businesses. Intellectual capital when combined with physical assets in manufacturing and production companies sharpens competitive edge. Bornemann et al. (1999) found that enterprises, which have managed their intellectual capital better, had achieved stronger competitive advantage than the general enterprises. In addition, they reported that companies, which had strengthened their own intellectual capital management compared to the others, had performed better. Brennan and Connell (2000) claimed that intellectual capital management played an important role on the long-term business performance of an enterprise. Consequently, Intellectual Capital directly or indirectly contributes to the performance of companies and should be given reasonable consideration in the business firms and be fully reported in the Financial Statement/Annual Report of companies

However, one question remains important, why is there limited emphasis on intellectual assets despite the fact that intellectual capital has been found to be value relevant. The objectives of this research were to determine the relationship between intellectual capital and firm's financial performance and evaluate the impact of intellectual capital on firms financial performance if any. Based on these premise, the following hypotheses stated in the null form are formulated and tested for the study:-

1. H_1: There is no significant relationship between intellectual capital and Firms' financial performance.
2. H_o: Intellectual capital has no significant impact on Firms' financial performance.

2.0 Review of related Literature

2.1 Theoretical Framework:

This research work is built on the foundation of resource based theory and balance scorecard. Resource based theory emphasizes organizational resources as the main sources of gaining competitive advantage and performance. Organizational resources are its assets and the strength which enables it to plan and implement operation strategies that improve organizational efficiency. These resources are seen to be the most important sources for establishing and sustaining a competitive advantage provided they meet the criteria of possessing value, in that the resources must exploit opportunities or neutralize threats from the competitors. This then emphasizes that the organizations owned resources especially the internal resources which include the intangible assets of the organization are the building blocks that help an organization to achieve its mission, vision and objectives if they are intending to be a leading company in attendant. These resources include patent right, brand names, trade mark, corporate image, networking system of the organization, employee's expertise/skills which are classified as intellectual capital drives. The theory emphasizes that, if these resources are put into use effectively by

organizations, competitive advantage and performance will be achieved, hence, linking intellectual capital management with organizational performance.

Balance scorecard is a management strategy used to identify and improve business internal function and its performance. These internal functions are seen as intellectual capital which comprises of human, structural and relational capital. When compared to the traditional financial metrics, it could be seen as a framework that adds non financial performance strategy to provide decision makers a balance view of organizational performance.
Organizations are viewed from four perspectives under balance scorecard. This includes (i) the Learning and Growth perspective which refers to development of human capital via training. (ii) Business process perspective referring to all the internal control procedures or business process which can be called structural capital. (iii) Customer/relational perspective implying that customers always look out for suppliers that will meet their needs, and lastly is financial perspective which focus on the returns to the organization hence organizational financial performance.

2.2 The Concept of Intellectual Capital

In the words of Thomas Stewart" intellectual capital is something that cannot be touched, although it slowly makes you rich". Jacob Ben- Simchon, (2005) describe intellectual capital as a compendium of non-tangible or non-physical assets and resources of an organization, as well as its practices, patents and the implicit knowledge of its members and their network of partners and contracts. Stewart (1997) defines it as 'packaged useful knowledge', Sullivan (2000) as 'knowledge that can be converted into profit', Roos et al (1997) as the 'sum of knowledge' of its members and practical translation of this knowledge into brands, trademarks and processes.

Edvinsson & Malone (1997) define it as the possession of knowledge, applied experience, organizational technology, customer relations and professional skills that provide a company with a competitive edge in the market. Stewart wrote a book in 1997 "Intellectual Capital: The New Wealth of Organizations", many practical cases were cited, it described the three major elements of intellectual capital: human capital, structural capital, and customer capital. Stewart (1997) believed intellectual capital includes human capital, structural capital, and customer capital. Human capital refers to innovation, employee attitudes, seniority, turnover, experience, and learning; structural capital refers to using highly effective way to collect, test, organize, integrate existing knowledge and to eliminate the impure and to retain the pure then disseminate it; customer capital refers to the relationship between a certain organization and the people it deals with, such as customer satisfaction, customer retention rate, and customer loyalty.
Edvinsson (2003) described intellectual capital simply: intellectual capital is the pillars of the future of any enterprise; it's an indicator of whether an enterprise can operate effectively. Any enterprise that does not invest in invisible capital cannot possibly generate the momentum of innovation (Shu-Hsiao Tsen and Hsiang-Ling Hu, 2010).

2.3 Components of intellectual capital

From the literatures reviewed on Intellectual Capital, majority of the authors believes that IC is made up of three components namely; human capital, structural capital and customer/relational capital. According to Halim, 2010, human capital denotes what a single employee brings into the value adding processes and encompasses professional competence, social competence, employee motivation, and leadership ability

2.3.1 Human capital:

Human capital connotes the intellects and knowledge exhibited by individual/employee which eventually adds value to an organization wealth. Bontis et al., (2000) sees IC as a stored knowledge in the collective ability of the company to extract the best solutions from within the minds of individual employees. Edvinsson and Malone (1997) define human capital as knowledge, skill, innovation, and the cumulative ability of individual participants to resolve the ongoing work. In addition, in their opinion, human capital includes values, culture and philosophy of the company. Stewart (1997) defines the human capital as capabilities of those who are references of innovation and modernization in the organization. Human capital (employees) has become one of the most valued assets in organizations both in theory and in practice. Although one can argue that human capital among all the component of intellectual capital is the most difficult to manage but yet it remain irreplaceable and most important. These suggest that business operators should be careful in making decisions that affect human capital, and to sustain competitive advantage, it is imperative that organizations manage its human capital effectively.

2.3.2 Structural capital

Chen et al. (2004) believe that structural capital refers to the system, structure, current business practices of an organization, which invariably is include all non-human knowledge in the organization such as research and development cost, innovation, patent right, trademark etc. It is an organizational way of doing business which is referred to as organizational culture which consists of values, beliefs, and norms of behavior that are shared and accepted by employees of organization. In addition, behavioral norms are unwritten rules that have stressed on issues such as the appearance of the staff and their cooperation with each other. Organizational culture is a valuable asset under the guidance of a philosophy of good management. Only through a strong organizational culture, a company can expose its staff's competencies to the public view, and motivate them to serve their organization and customers willingly. Structural capital is a function of human capital because human capital is considered as a determining factor in the form of an organization. On the other hand, structural capital as soon as it is influenced under the human capital is created openly and fully independent of human capital (Bontis & Richardson, 2000). This organizational capital is responsible for the company's renewal and value creating processes.

2.3.3 Customer capital

The third category of the classification of intellectual capital is customer capital or communicational capital. Customer capital includes both the present value of organization relationships with customers and the potential value of organizations originated from this relationship in the future. Therefore, the essence of the customer capital lies in hidden knowledge of marketing and communication channels that an organization will design during the birth period (Bontis et al., 2000). Customer capital represents the potential that the company has for intangible items outside of the organizations. In fact, customer capital includes the external dimensions of the organizations' income process. Trading, reputation, strategic alliances, networks, communication with customers and suppliers, all have income potential. Generally, customer capital that acts as a bridge in intellectual capital, is the main determining factor in converting the intellectual capital to market value, consequently it is the function of business organization.
Without customer capital, market value or the function of business organizations cannot be achieved. Therefore, the growth of customer capital depends on the support by human capital and structural capital (Chen et al., 2004)

2.4 The influence of intellectual capital to organization/firms performance

Several research indicate significant prove of intellectual capital influence to organization performance. In globalization era, all organization effort has to competitive advantage. To achieved competitive advantage needs both physical capital and intellectual capital. The study result of Hitt et al. (2001) proved the role intangible capital more dominant compare with tangible capital. Another research indicate that intellectual capital recognized as important resources which give use for create organization efficiency, effectively, productivity, and innovative better than physical capital and financial capital (Najibullah, 2005). The research result by Pulic (1999) show that intellectual capital can create value added for organization. Its study support the idea if intellectual capital as very important resources for organization. Consistent with research before, intellectual capital has potential as wealth creator in business organization (Walker, 2001; Usoff et al., 2002; & Karp, 2003). The ability intellectual capital as strategic resources can see through its role as a driver in increasing business performance. In this case, the intellectual capital is an important key to achieve competitive advantage. The opposite research result before, studied by Iswati (2007) show that no influence between intellectual to bank's performance in Jakarta Stock Exchange. Interest for depth further, the Peña (2002) result proved his hypothesis, that the new organization performance depend on intellectual capital management which achieved by entrepreneur in preparation period. This result strongly support about intellectual capital role in business life cycle, start from preparation stage until maturity stage. Breman (2001) has test the influence of intellectual capital to business performance for organization, which go public in Ireland. The performance variables consist of productivity, skill, and organization profitability. Its result show that the influence of intellectual influence profitability variable. Besides that, Walker (2001) did research the relation between intellectual capitals with three dimension of organization performance; there are profitability, productivity, and market price. Walker's result there is significant positive relation between human capital and organization performance in both yang low knowledge base organization and high knowledge-base organization.

IJASRM International Journal of Advanced Scientific Research and Management, Vol. 2 Issue 1, Jan 2017.
www.ijasrm.com
ISSN 2455-6378

3 Methodology

The research design employed in gathering the requisite data for the study is *Ex Post-Facto* research. Ex Post-Facto research involves events that have already taken place, which no attempt is made to control, or manipulate relevant independent variables because these variables are not manipulatable. The variables in this research work are events, which had already taken place in the annual financial report of the selected companies. The major source of data used in this research is the secondary source. The secondary data was collected from the annual financial reports of the selected companies. An Annual report is a comprehensive report on the Company's program and activities over the past year. Information on profit before tax and total assets, among others are product of financial statement section of the annual report. Return on asset for the sampled companies were computed from the values extracted from the financial statement. For each company, a four-year average (2008-2011) ROA was computed to smooth out individual year's fluctuations. The study employed the use of Value Added Intellectual Capital Coefficient (VAIC^{TM}) and Intellectual Capital Efficiency to determine the value added by the Intellectual capital components of the companies under study and its efficiency. The data obtained and used in the study are based on information from the financial records as published by the companies.

3.1 Measurement of variables in the study

To calculate the Intellectual Capital (Independent variables), the researcher adopted the method of Value Added Intellectual Capital Coefficient (VAIC^{TM}) which shows the efficiency of the intellectual capital and for the measurement of financial performance, the researcher used return on assets (ROA).

i. Value Added Intellectual Capital Coefficient (VAIC^{TM})

Pulic, (1998, 2000) considers Value Added Intellectual Capital Coefficient (VAIC^{TM}) methodology as a universal indicator which shows the ability of a company in value creation and represents a measure for assessing the efficiency of Intellectual Capital. VAIC^{TM} is developed to assess and evaluate the efficiency in adding value to a company's total resources while each major resource component focuses on value addition in an organization. The main constituent of each of them is the value added (VA). Value added results from how current business and related resources are employed. It represents the gross global value added created by the firm.

The VA for the purpose of the study is = D+A+C+P

Where: D is depreciation

A is amortization.

C describes the costs of the employees e.g., salaries .etc

P is the operating profit of the company.

3.2 Components of Intellectual Capital

Human capital (HC) is the sum of the value of wages, salaries and benefits for workers .

Structural capital is the difference between the value added (VA) and human capital (HC).

Relational capital is an external component in the study of intellectual capital. Since human capital and structural capital influence relational capital, only these two components are considered

ii. Capital Employed Efficiency (CEE) which shows the efficiency of the capital employed.

$$\textbf{CEE} = \frac{\text{Value Added (VA)}}{\text{Capital Employed (CE)}}$$

Where;

Capital Employed (CE) = Total Assets – Current liabilities.

Therefore, in this way we can also calculate the human capital efficiency and the structural capital efficiency as follows:

iii. Intellectual Capital Efficiency (ICE)

Human Capital Efficiency (HCE) is an indicator of the value added efficiency of human capital and is calculated thus;

HCE = Value added/Human capital.

Structural Capital Efficiency (SCE) is an indicator of the value added efficiency of structural capital and is calculated thus;

SCE =Structural capital/Value added.

By adding the human capital efficiency and the structural capital efficiency we can get the Intellectual capital efficiency

Intellectual Capital Efficiency (ICE)=HCE+ SCE.

Value Added Intellectual Capital Coefficient (VAIC^{TM}) is defined by Shiu (2006) as composite sum of three indicators of physical capital employed efficiency (CEE), human capital efficiency (HCE) and structural capital efficiency (SCE).

VAIC^{TM}= CEE+HCE+SCE

At the end, the Value Added Intellectual Capital Coefficient (VAIC^{TM}) is the total sum of the Capital Employed Efficiency(CEE) and the Intellectual Capital Efficiency (ICE)

VAIC^{TM}= CEE + ICE

IJASRM International Journal of Advanced Scientific Research and Management, Vol. 2 Issue 1, Jan 2017.
www.ijasrm.com
ISSN 2455-6378

iv. Organizational Performance

According to Richard, Devinney, Yip & Johnson (2009), organizational performance encompasses three specific areas of firm outcome: First, product market performance (sales, market share e.t.c.); Second, shareholder return (total shareholder return, economic value added e.t.c.) and Third, **financial performance** (profit margin, return on equity, **return on assets**, return on sales) which is the focus for this study. Financial performance refers to the income (new resources) generating ability of a firm over a given period of time.

Return on Assets

Return on assets is a financial criterion which indicates the amount of management efficiency in applying the existing resources in order to increase the profitability. It is referred to as the earning power that provides an index for determining how profitable the firm has been in the use of its assets. The rationale for using Return on Assets (ROA) is because according to Gan & Saleh, (2008) in Intellectual capital and corporate performance of technology intensive companies: Malaysia evidence, Return on assets indicates the use efficiency of the assets. Accounting-based measures have been extensively used in past researches as a measure of economic performance. Studies such as Muhammad & Ismail (2009), in their study of the relationship between intellectual capital and business performance in the Malaysian financial sector measured firm performance with ROA. Furqan Ahmad Khan, Raja Abdul Ghafoor Khan, & Dr. Muhammed Aslam Khan (2012), also used ROA to substantiate the impact of Intellectual capital on financial performance of banks in Pakistan. The study of Reza Gharoie Ahangar (2011) on the relationship between Intellectual capital and financial performance on Iranian company made used of ROA to measure financial performance.

$$ROA = \frac{\text{Total earnings}}{\text{Total Assets}}$$

4. Data Analysis

H_i = There is no significant relationship between intellectual capital and firms financial Performance

Pearson correlation coefficient method is used to check the relationship between the Return on Assets (ROA), Capital Employed Efficiency (CEE), Intellectual Capital efficiency (ICE) and Value Added Intellectual Capital Coefficient (VAIC™).

To determine the relationship between intellectual capital and firm's financial performance, the researcher used the average of the data collected from the annual report for the 4 years. (see appendix 11)

TABLE 1 : EFFICIENCY TABLE

1	2	3	4	5	6	7
YEAR	COMPANY	HUMAN CAPITAL EFFICIENCY (HCE)	STRUCTYRAL CAPITAL EFFICIENCY (SCE)	CAPITAL EMPLOYED EFFICIENCY (CEE)	INTELLECTUAL CAPITAL EFFICIENCY (ICE)	VALUE ADDED INTELLECTUAL CAPITAL (VAIC)
08-11	1	2.1381	0.5301	0.6048	2.6682	3.2730
08-11	2	2.9931	0.6591	0.9386	3.6521	4.5907
08-11	3	3.3140	0.6726	0.8643	3.7365	4.6008
08-11	4	5.7790	0.8315	0.8522	6.6104	7.4626

Source: Derived with the Formula propounded by Ante Pulic (1998; 2000)from annual report of the companies under study. SEE APPENDIX 11

TABLE 2: The correlation coefficient related to the whole data between 2008 and 2011 of the four Companies

	ROA	VAIC	ICE	CEE
ROA	1			
VAIC	0.6500	1		
ICE	0.6300	0.9972	1	
CEE	0.8070	0.6732	0.6625	1

Table 2 shows that VAIC and ROA have strong positive relationship. ROA and VAIC have correlation of 0.6500 and are significant to each other. Intellectual Capital Efficiency and Return on Assets also keep competitive correlation of 0.6300 and are significant for both of them. The correlation between Intellectual Capital Efficiency and Value Added Intellectual Coefficient (VAIC) is 0.9972. These two variables are also significant in relation to them. Capital Employed Efficiency and Return on Assets also has positive correlation of 0.8070. Capital Employed Efficiency (CEE) and VAIC also bear correlation of 0.6732. The correlation between CEE and VAIC is less than ICE and VAIC, thus ICE and VAIC are significant to one and other. The correlation between the Capital Employed Efficiency and the Intellectual Capital Efficiency is 0.6625. The result describes that the SCE and HCE values are more significant to VAIC™ and ROA than Capital Employed Efficiency (CEE) value of the sample companies.

DECISION: From the analysis it shows that, correlation coefficient (r) of the whole data is approaching +1, which indicates a strong and positive relationship between intellectual capital and firms' financial performance. This leads to rejection of the Null hypothesis and acceptance of the alternative hypothesis.

IJASRM
International Journal of Advanced Scientific Research and Management, Vol. 2 Issue 1, Jan 2017.
www.ijasrm.com
ISSN 2455-6378

H_2: Intellectual capital has no significant impact on firms financial Performance.

4.1 SPECIFICATION OF MODEL

Regression analysis was used to test the impact of intellectual capital on firm's financial performance.

Regression Formula: Regression Equation(y) = a + bx

Slope(b) = $(N\Sigma XY - (\Sigma X)(\Sigma Y)) / (N\Sigma X^2 - (\Sigma X)^2)$

Intercept(a) = $(\Sigma Y - b(\Sigma X)) / N$

where:

x and y are the variables.
b = The slope of the regression line
a = The intercept point of the regression line and the y axis.
N = Number of values or elements
X = Dependent Variable (ROA)
Y = Independent Variable ($VAIC^{TM}$))
ΣXY = Sum of the product of first and Second Scores
ΣX = Sum of First Scores
ΣY = Sum of Second Scores
ΣX^2 = Sum of square First Scores

TABLE 3: Simple Regression Table showing the impact of value added intellectual coefficient (VAIC) on firm's financial performance(ROA).

	Y	X	XY	X^2
	ROA	**VAIC**		
1	0.0571	3.2730	0.1869	10.7125
2	0.1537	4.5907	0.7056	21.0745
3	0.2335	4.6008	1.0743	21.1673
4	0.1780	7.4626	1.3283	55.6904
	Y=0.6223 - Y=0.1556	**X=19.9271 - X=4.9818**	**XY=3.2951**	**X^2=108.6447**

Source: Appendix 11 and III (ROA-Table 1 column 9, VAIC- Table 2 column 7)

Regression Equation (Y) = a + bx

$$b = \frac{N\Sigma XY - \Sigma X\Sigma Y}{N\Sigma X^2 - (\Sigma X)^2}$$

a= Y – b X
Substituting the figures in the formula above

$$b = \frac{4(3.2951) - (19.9271)(0.6223)}{4(108.6447) - (19.9271)}$$

$$b = \frac{13.1804 - 12.4006}{434.5788 - 397.0893}$$

$$\frac{0.7598}{37.4895}$$

b= 0.0208

a= 0.1556 – 0.0208(4.9818)
= 0.1556 – 0.1036
= 0.052

Hence y= 0.052 + 0.0208X

The calculation above shows that financial performance increases when the value added intellectual capital (VAIC) increases. An increase in VAIC by 0.052% will lead to a 0.0208% increase in financial performance.

TABLE 4:Simple Regression Table showing the impact of Intellectual Capital Efficiency (ICE) on firm's financial performance(ROA)

	Y	X	XY	X^2
COY	**ROA**	**ICE**		
1	0.0571	2.6682	0.1524	7.1193
2	0.1537	3.6521	0.5613	13.3378
3	0.2335	3.7365	0.8725	13.9614
4	0.1780	6.6104	1.1767	43.6974
	Y=0.6223 - Y=0.1556	**X=16.6672 - X=4.1668**	**XY=2.7629**	**X^2=78.1159**

Source: APPENDIX 11 (ROA-Table 1 column 10 under average, ICE- Table 2 column 6 under average)

Regression Equation (Y) = a + bx

$$b = \frac{N\Sigma XY - \Sigma X\Sigma Y}{N\Sigma X^2 - (\Sigma X)^2}$$

a= Y – b X
Substituting the figures in the formula above

$$b = \frac{4(2.7629) - (16.6672)(0.6223)}{4(78.1159) - (16.6672)}$$

$$b = \frac{11.0516 - 10.3720}{312.4636 - 277.7956}$$

$$\frac{0.6796}{34.668}$$

b= 0.0196
a= 0.1556 – 0.0196(4.1668)
= 0.1556 – 0.0817
= 0.0739

Hence y= 0.0739 + 0.0196X

The calculation above shows that financial performance increases when the efficiency of

intellectual capital (ICE) increases. An increase in ICE by 0.0739% will lead to a 0.0196% increase in financial performance.
DECISION: From the above analysis, it shows that intellectual capital has a significant impact on organizational/firms financial performance. Invariably, the Null Hypothesis is rejected while the alternative is accepted.

5. Discussion of Findings

A. There is a significant relationship between Intellectual Capital and Firm's Financial Performance.

The study reveals that intellectual capital (Human, Structural and Relational Capital) affects financial performance of an organization positively. Human Resource practices create innovation in the organization, which is helpful in increasing the financial performance. Structural capital resources also play significant role in the financial performance of organizations. A good relationship with different stakeholders also improves financial performance of the organization. Hence, intellectual capital has significant positive relationship with the financial performance of the organization. The above submission is evidenced by the works of Mojtaba Rafiei, Hady Ghaffari & Roshanak Parsapur (2012). They investigated the impact of IC on Organizational Performance; their study which was on Iranian Medical Science University revealed that there exist a positive relationship between IC and Organizational Performance and that IC has a great impact on organizational performance. Reza Gharoie Ahangar (2011) examined the relationship between IC and Financial Performance. The study showed a positive relationship between them, although some components of IC are more related then others

B. Intellectual Capital has significant impact on Firm's Reported Financial Performance.

It is obvious that the efficiency of the Intellectual capital increases the financial performance of the organizations. This shows that intellectual capital has significant impact on organizational/firm's financial performance.
This result is confirmed by the study of "Sadaghiani and Jamali (2012) examined the impact of intellectual capital and its components on performance in accounting parts of Hospitals". Their result show a positive relationship between them. The regression analysis indicates that a unit increase in intellectual capital can increase 1.62 units increase in the performance of the medical university. Similarly a unit increase in human capital, relational capital, and structural capital will affect an increase of 1.278, 1.21, and 1.415 units increase in financial performance, respectively". In addition,
Iswatia and Anshoria, (2007) studied the influence of intellectual capital on financial performance of the insurance companies. The research was carried out by using the secondary data from Indonesia Capital Market Directory 2005 were only listed insurance companies in Jakarta Stock Exchange were taken. The result indicate that intellectual capital has a positive influence on financial.

5.1 POLICY IMPLICATIONS OF RESEARCH FINDINGS

A. There is a significant relationship between intellectual capital and organizational performance, as such there should be increased move to create awareness of intellectual capital reporting and management among companies.
B. More efforts are needed to educate organizations on how intellectual capital impact organizational financial performance.

5.2 CONTRIBUTION TO KNOWLEDGE

A. This research work has revealed the importance of intellectual capital management, valuation and reporting in the annual report of organizations as a key factor that required much attention from organizations, accounting bodies and policy makers in Nigeria.
B. It also revealed that there is a relationship between intellectual capital (human, structural and relational capital) and organizational financial performance.

5.3CONCLUSION AND RECOMMENDATIONS

Intellectual capital no doubt has become important for organizational performance, as seen in some related literature reviewed and the result of the hypotheses formulated and tested in this research work. Organizations should give proper attention to the intellectual resources since its efficiency improves financial performance. In the knowledge base economy, intellectual capital is regarded as one of the key driver of market value as human knowledge is the key factor of the future industrial growth.

In achieving business competitive advantage companies must create a culture that emphasizes intellectual capital importance. The international accounting bodies should collaborate in order to

develop valuation system and approach for intellectual capital reporting that will be accepted globally.

Parameters for the disclosure of Intellectual Capital should be establish by the regulatory bodies. Furthermore, since the components of intellectual capital are interconnected, the NASB and IFRC should issue accounting standards on valuing and reporting of human and relational capital drivers as assets so that it will be easy to calculate the value of these three components on the same ground. In addition, comparison among companies will be easier for investors in making investment decisions. Moreover, since business operations of most of the companies in Nigeria are averagely based on intangible asset, as reported by Nasir, 2006, it is better to report all the intellectual capital so that the investors will know how their resources are being utilized as well as the total value of their investments at every point in time. This will inevitably enable them to make appropriate investment decision. Excluding reporting of intellectual capital may contribute towards underestimating the firms' value (Arcelus, Mitra and Srinivasan, 2005) and information asymmetry (Holland, 2009)

BIBLIOGRAPHY

[1] Abdul Ghafoor Awan & Kashif Saeed (2015), Relationship between Intellectual Capital and Organizational Performance: A case study of Public Sector Universities in Southern Punjab Pakistan. Journal of Resource Development and Management ISSN 2422-8397 An International Peer-reviewed Journal Vol.9, 2015.

[2] Arcelus F.J., Mitra D. and Srinivasan G. (2005), On the incidence of deferred taxes, intangibles and non-linearities in the relationship between Tobin's Q and ROI, Journal of Economics and Business, Vol. 57, pp. 165-185.

[3] Bontis N, Chua W, Richardson S (2000): "Intellectual capital and the nature of business in Malaysia". Journal of Intellectual Capital, 1(1): 85-100.

[4] Bontis, N., Keow, W.C. & Richardson, S. (2000):"Intellectual capital and business performance in Malaysian industries", Journal of Intellectual Capital, 1(1):85-100.

[5] Bornemann M., Knapp A., Schneider U., and Sixl K. [1999], Holistic measurement of intellectual capital, International Symposium on Measuring and Reporting Intellectual Capital: Experience

[6] Bounfour, A. & Edvinsson, L. (2005): Intellectual capital for communities – nations, regions, and cities, Butterworth-Heinemann, Oxford.

[7] Bramhandkar, A., Erickson, S. & Applebee I. (2007): "Intellectual Capital and Organizational Performance: an Empirical Study of the Pharmaceutical Industry." The Electronic Journal of Knowledge Management, 5(4): 357 – 362.

[8] Brennan, N. (2001): "Reporting Intellectual Capital in Annual Reports: Evidence from Ireland", Accounting, Auditing & Accountability Journal, 14(4): 423-36.

[9] Brennan, N and Connell, B. (2000) "Intellectual capital: current issues and policy implications",Journal of Intellectual capital, Vol.1, No.3, pp206-240.

[10] Chen J, Zhu Z, Xie HY (2004). Measuring Intellectual Capital: A new Model and Empirical Study. Journal of Intellectual Capital, 5: 195-212.

[11] Edvinsson, L. (1997): "Developing Intellectual Capital at Skandia", Long Range Planning, Vol. 30 (3) 366-73.

[12] Edvinsson, L. (2003). Corporate longitude: What you need to know to navigate the knowledge economy, financial times prentice hall, Pearson Education, Inc., Upper.

[13] Gan, K. & Selah, Z. (2008). Intellectual capital and corporate performance of a. technology intensive companies: Malaysia evidence. Asia Journal of Business and Accounting, 1(1), 113-130.

[14] Halim S (2010). Statistical Analysis on the Intellectual Capital Statement. Journal of Intellectual Capital, 11(1): 61-73

[15] Holland, J. (2009): Looking behind the veil: Invisible Corporate intangibles, stories, structure and the contextual information content of disclosure. Qualitative Research in financial market, 1 (3), 152-187.

[16] Iswati, Sri, (2007). Memprediksi Kinnerja Keuangan dengan Modal Intelektual pada Perusahaan Perbankan Terbuka di Bursa Efek Jakarta. Ekuitas, XI (2), 159-174.

[17] Jacob Ben-Simchon (2005). 'Reporting of intellectual capital in research intensive SME's final Dissertation', The University of Inholland.
[18] Karp, Tom. (2003). Is Intellectual Capitalism the Future Wealth of organizations? Foresight, 5 (4), 20-27.
[19] Lim, L. K. & Dallimore, P. (2004): Intellectual Capital: Management Attitudes inService Industries: Journal of Intellectual Capital 5(1), 181-194.
[20] Michael A. Hitt, Leonard Bierman, Katsuhiko Shimizu and Rahul Kochhar (2001). Direct and moderating Effects of human Capital on Strategy and Performance in Professional Service Firms: A Resource-Based Perspective. Academy of Management Journal, 44 (1), 13-28.
[21] Najibullah, Syed, (2005). An Empirical Investigation of the Relationship between Intellectual Capital and Firms' Market Value and Financial Performance. Independent University, Bangladesh.
[22] Okafor R.G (2012): Intangible Relational Capital and the Success of Entrepreneurship Firms in Nigeria: A Second Look. Journal of Economics and Sustainable Development, Vol. 3(14) 179-187
[23] Okwy , P., O & Christopher, C., O. (2010): Human capital Accounting and its relevance to Stock Investment Decisions in Nigeria. European Journal of Economics, Finance and Administrative Sciences, 21, 64- 76
[24] Pena, inaki. (2002). Intellectual Capital and Business Start-Up Success. Journal of Intellectual Capital, 3 (2), 80-198.
[25] Pike, S., Rylander, A. and Roos, G. (2002): "Intellectual capital management and disclosure" in The strategic management of intellectual capital and organizational knowledge,
[26] Pulic, A. (2000). "VAIC™ an Accounting tool for IC Management", International Journal of Technology Management, 20(5-8): 702-714.
[27] Reza Gharoie Ahangar (2010), The relationship between Intellectual Capital and Financial Performance: An Empirical Investigation in an Iranian Company, African Journal of Business Management Vol. 59(1), pp.88-95, 4 January, 2011.
[28] Richard, P.J., Devinney, T.M., Yip, G.S., Johnson, G .(2009). Measuring organizational performance: Towards methodological best practice Journal of Mangement. Accessed on 5/7/11 from http:// jom. sage pub. Com/ content/early/2009/02/06/01492063083305 60.abstract
[29] Roos, Johan et al (1997): Intellectual Capital: Navigating the new business landscape.Macmillan Press Ltd, London.
[30] Sadaghani, J., and Jamali, H. (2012),"An empirical study the relationship between Intellectual intelligence and university performance." Management Science Letters vol., 2 (5), 1543-1548.
[31] Stewart, Thomas A. (1997): "Intellectual capital: the new wealth of organizations", Doubleday New York, NY, USA.
[32] Sullivan P H (2000). Value-driven Intellectual Capital: How to convert Intangible Corporate Assets into Market Value, Toronto, Canada: John Wiley and Sons.
[33] Tsen, Shu-hsiao, Hu, Hsiang-ling (2010), "A Research on the Organizational Competitiveness and the Indicators of the Intellectual Capital: In the Case on the International Tourist Hotels", Journal of Human Resource Management, Vol. 10, No. 1. ISSN: 1026-5309.
[34] Usoff, Chaterine A., Jay C. Thibodeau, Priscilla Burnaby. (2002). The Importance of Intellectual Capital and its Effect on Performance Measurement Systems. Managerial auditing Journal, 17/1/2, 9-15.
[35] Walker, Dana Charles. (2001). Exploring the Human Capital Contribution to Productivity, Profitability and the Market Evaluation of the Firm. http:/wwwlib.umi.com/dissertations/previe w_all/3010003.
[36] Wiig, K.M. (1997) "Integrating intellectual capital and knowledge management", Long Range Planning, Vol 30, No.3, pp399-405.

IJASRM
International Journal of Advanced Scientific Research and Management, Vol. 2 Issue 1, Jan 2017.
www.ijasrm.com
ISSN 2455-6378

APPENDIX I

ABBREVIATION, MEANINGS AND FORMULA

COMPANY 1
7UP BOTTLING COMPANY

COMPANY 2
UNILEVER NIGERIA

COMPANY 3
NESTLE NIGERIA

COMPANY 4
GUINNESS NIGERIA

VA- VALUE ADDED

HC- HUMAN CAPITAL WHICH TOTAL SALARY

SC-STRUCTURAL CAPITAL= VALUE ADDED - HUMAN CAPITAL

TA- TOTAL ASSET

CL- CURRENT LIABILITY

CE- CAPITAL EMPLOYED= TOTAL ASSET – CURRENT LIABILITY

NE- NET EARNIN= PROFIT AFTER TAX

ROA- RETURN ON ASSET= NET EARNING/TOTAL ASSET

HCE- HUMAN CAPITAL EFFICIENCY= VALUE ADDED/HUMAN CAPITAL

SCE- STRUCTURAL CAPITAL EFFICIENCY= STRUCTURAL CAPITAL/VALUE ADDED

CEE- CAPITAL EMPLOYED EFFICIENCY= VALUE ADDED/CAPITAL EMPLOYED

ICE- INTELLECTUAL CAPITAL EFFICIENCY= HCE + SCE

VAIC- VALUE ADDED INTELLECTUAL CAPITAL= ICE + CEE

APPENDIX II

TABLE I

1	2	3	4	5	6	7	8	9	10
Yr	COY	VA	HC	SC	TA	CL	CE	NE	ROA
2008	1	9,871,071.00	4,892,842.00	4,978,229.00	23,982,210.00	6,752,435.00	17,229,775.00	1,608,910.00	0.0671
	2	8,976,482.00	3,821,246.00	5,155,236.00	23,492,656.00	13,742,718.00	9,749,938.00	2,596,533.00	0.1105
	3	20,235,841.00	7,041,453.00	13,194,388.00	29,159,552.00	11,093,617.00	18,065,935.00	8,331,599.00	0.2857
	4	33,348,049.00	5,470,571.00	27,877,478.00	74,655,667.00	25,640,278.00	49,015,389.00	11,860,880.00	0.1589
2009	1	11,237,154.00	5,022,589.00	6,214,595.00	31,879,851.00	11,617,672.00	20,262,179.00	1,529,674.00	0.048
	2	10,485,158.00	3,503,370.00	6,981,788.00	23,681,724.00	12,404,654.00	11,277,070.00	4,093,822.00	0.1729
	3	24,077,636.00	8,272,085.00	15,805,551.00	44,250,372.00	17,930,428.00	26,319,944.00	9,782,244.00	0.2211
	4	40,820,836.00	7,317,750.00	33,503,086.00	73,868,737.00	31,141,958.00	42,726,779.00	13,541,189.00	0.1833
2010	1	13,903,388.00	5,981,243.00	7,922,145.00	33,428,460.00	12,735,725.00	20,696,735.00	1,892,146.00	0.0566
	2	10,836,472.00	3,403,324.00	7,433,148.00	25,935,341.00	14,395,173.00	11,540,168.00	4,180,620.00	0.1612
	3	30,567,043.00	9,326,692.00	21,240,351.00	60,347,062.00	19,455,299.00	40,891,763.00	12,602,109.00	0.2088
	4	42,777,547.00	7,921,507.00	34,856,040.00	78,396,876.00	30,648,377.00	47,748,499.00	13,736,359.00	0.1752
2011	1	14,451,885.00	7,325,812.00	7,126,073.00	40,231,991.00	16,914,742.00	23,317,249.00	2,277,544.00	0.0566
	2	12,923,727.00	3,750,245.00	9,173,482.00	32,279,958.00	18,884,177.00	13,395,781.00	5,491,076.00	0.1701
	3	36,106,893.00	11,305,648.00	24,801,245.00	76,945,793.00	23,420,143.00	53,525,650.00	16,808,764.00	0.2184
	4	48,790,408.00	7,117,637.00	41,672,771.00	92,227,824.00	36,588,640.00	55,639,184.00	17,927,934.00	0.1944
AVERAGE									
	1	12,365,874.50	5,805,621.50	6,560,260.50	32,380,628.00	12,005,143.50	20,376,484.50	1,827,068.50	0.0571
	2	10,805,459.75	3,619,546.25	7,185,913.50	26,347,419.75	14,856,680.50	11,490,739.25	4,090,512.75	0.1537
	3	27,746,853.25	8,986,469.50	18,760,383.75	52,675,694.75	17,974,871.75	34,700,823.00	11,881,179.00	0.2335
	4	41,434,210.00	6,956,866.25	34,477,343.75	79,787,276.00	31,004,813.25	48,782,462.75	14,266,590.50	0.178

Source: Annual Report of the selected companies

IJASRM
International Journal of Advanced Scientific Research and Management, Vol. 2 Issue 1, Jan 2017.
www.ijasrm.com
ISSN 2455-6378

TABLE II: EFFICIENCY TABLE

1	2	3	4	5	6	7
YEAR	COMPANY	HUMAN CAPITAL EFFICIENCY (HCE)	STRUCTYRAL CAPITAL EFFICIENCY (SCE)	CAPITAL EMPLOYED EFFICIENCY (CEE)	INTELLECTUAL CAPITAL EFFICIENCY (ICE)	VALUE ADDED INTELLECTUAL CAPITAL (VAIC)
08	1	2.0175	0.5044	0.5729	2.5219	3.0948
	2	2.3491	0.5743	0.9207	2.9234	3.8441
	3	2.8739	0.6521	1.1202	3.5260	4.6462
	4	6.0959	0.8360	0.6804	6.9319	7.6123
09	1	2.2374	0.5531	0.5546	2.7906	3.3452
	2	2.9929	0.6659	0.9298	3.6588	4.5886
	3	3.9107	0.6565	0.9148	3.5672	4.4820
	4	5.5784	0.8208	0.9554	6.3992	7.3546
10	1	2.3245	0.5698	0.6719	2.8943	3.5662
	2	3.1841	0.6860	0.9391	3.8701	4.8092
	3	3.2774	0.6949	0.7476	3.9723	4.7199
	4	4.5866	0.8149	0.8959	5.4015	6.2974
11	1	1.9728	0.4931	0.6198	2.4659	3.0857
	2	3.4461	0.7099	0.9648	4.1560	5.1208
	3	3.1937	0.6869	0.6746	3.8806	4.5552
	4	6.8549	0.8542	0.8769	7.7091	8.5860
AVERAGE						
08-11	1	2.1381	0.5301	0.6048	2.6652	3.2730
08-11	2	2.9931	0.6591	0.9386	3.6521	4.5907
08-11	3	3.3140	0.6726	0.8643	3.7365	4.6008
08-11	4	5.7790	0.8315	0.8522	6.6104	7.4626

Source: Derived from Table 4.1 with the Formula propounded by Ante Pulic (1998; 2000)