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EFFECT OF INTELLECTUAL CAPITAL ON FINANCIAL PERFORMANCE OF INDUSTRIAL GOODS COMPANIES IN NIGERIA

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ABSTRACT

This study examines the effect of intellectual capital on financial performance of listed industrial goods companies in Nigeria for ten years' period 2008 to 2018 by adopting Pulic model of IC known as value added intellectual coefficient (VAIC). Secondary data were used; multiple Regression models were used to test the hypotheses of the study where the results show that there was positive significant influence of IC on financial performance. Specifically, the results showed that structural capital efficiency and capital employed efficiency influence the financial performance of industrial goods companies. Human capital efficiency was not significant but has a positive contribution to return on asset. This study recommends that companies in Nigeria should invest in development of their intellectual capital as a key driver of firm's performance. The study also suggests that there is a need to have a separate department called IC department in all organization so that clear and proper records of all components of IC could be kept by the organization.

1.0 INTRODUCTION

In the modern world, the power of globalization has come into existence so speedily due to the fact that information and communication technology (ICT) and knowledge become the most precious assets of the firms. Transformation into modern world of technology has necessitated for the urgent need to look and find out intellectual means in a company's financial reports Appauhami (2015). Therefore, Intellectual Capital has been recognized as the bedrock for achievement of organizational goals (Pulic, 2016). An extensive recognition of Intellectual Capital as a medium of competitive advantage resulted in the new strategies of monitoring the activities need in the company to achieve a maximum productivity from Intellectual Capital (Salman 2014).

Hence, old-fashioned accounting and measurement systems seem to be inappropriate and imbalanced in the new economic world where competitive advantage is driven by ICT and intellectual Capital. This is because, old fashioned accounting does not reflect the true picture about the company and may mislead investors and other relevant stakeholders to make

appropriate choices when making economic decisions (Brooking 2001). Due to the knowledge-based economy, all companies around the world depend heavily on Intellectual Capital to achieve a concept of going concern and increase their productivity Ahangar (2016).

In recent years there has been a growing realization that a company's stock to intangible assets is a key contributor to its capacity to secure a sustainable competitive advantage. Knowledge based intangibles in particular are recognized to be central to the value creation process. Such assets have increasingly been referred to by a new term that of intellectual capital, in order to distinguish them from the financial capital that has traditionally provided the foundations for wealth creation. Intellectual capital refers to a much wider range of assets than those normally recognized as intangible e.g. goodwill, brands, company reputation.

The emergence of intellectual capital discourse accompanied by the drive to establish new metrics that can be used to record and report the value attributable to intellectual capital. It is time for traditional financial and management accounting practice to adapt to the new terrain. This rise of the New Economy- one principally driven by information knowledge is identified by the Abosedo (2012) as explaining the increased prominence of intellectual capital (IC) as a business and research topic. There is scant agreement as to what extent to our current understanding of intellectual capital (IC) is new Mohammadrezaei (2012). Yet IC, in one form or another, is implicated in recent economic, managerial, technological and sociological development in a manner previously unknown and largely unforeseen.

The financial performance is normally announced through periodic financial statements and it is targeted at producing complete and reliable information to assist the users to take informed investment decision Appauhami (2015). Affirmed that financial statements should be capable of revealing relevant, reliable, comparable and comprehensive information. The aim of Generally Accepted Accounting Principles (GAAP) compliance is to ensure that companies prepare accurate financial statements that faithfully represent their financial positions and operating results Arslan and Zaman 2014).

Financial Performance is thus crucial to any business organization survival and continues patronage by the stakeholders in the business world. Specifically, financial performance is a natural result of business operations involving the use of both physical capital and intellectual capital. The former refers to tangible assets such as land, machinery, and monetary capital while the latter refers to intangible assets in form of knowledge, creativity, skill, innovation, corporate culture and organizational relationship with external parties which is the key value driver and competitive advantages that really determine the financial performance of any organization in this knowledge-based economy. The ownership of intangible assets especially intellectual capital has becoming more important in this modern era where technology and knowledge have significant roles in company operating activities.

Therefore, this study attempt to fill the aforementioned lacunas which aims at examining the effect of Intellectual Capital on financial performance of listed industrial goods companies in Nigeria.

The main objective of this is to examine the effect of intellectual capital on financial performance of industrial goods companies in Nigeria. The specific objectives are to:

- i. Determine the effect of Human Capital Efficiency (HCE) and Return on Assets (ROA) of industrial goods companies in Nigeria.
- ii. Examine the influence of Structural Capital Efficiency (SCE) and Return on Assets (ROA) of industrial goods companies in Nigeria.
- iii. Assess the effect of Capital Employed Efficiency (CEE) and Return on Assets (ROA) of industrial goods companies in Nigeria.

In order to achieve the above stated objectives of the study, the following null hypotheses are formulated for testing;

H₀₁: Human Capital Efficiency has no significant effect on Return on Assets of industrial goods companies in Nigeria.

H₀₂: There is no significant effect between structural capital efficiency and Return on Assets of industrial goods companies in Nigeria.

H₀₃: There is no significant effect between Capital Employed Efficiency and Return on Assets of industrial goods companies in Nigeria.

2.0 LITERATURE REVIEW

The concept of Intellectual Capital generally emanated from a describing the 'dynamic effects of individuals the 'Intellect (Sullivan 2016), The very first of such definition of IC is that credited to Thomas Stewart, a pioneer of the concept, who in 1991 in an article captioned 'Brain Power-How Intellectual Capital is Becoming America's Most Valuable Asset' defined Intellectual Capital (IC) as the sum of everything everybody in your company knows that gives you company a competitive edge in the market place'. He further noted it is knowledge that transforms raw materials and makes them more valuable. He submitted that for any knowledge to be tagged 'IC', the knowledge must be able to be used to create wealth this definition is closely followed by the one proposed by Edvinsson and Sullivan (1996) defining Intellectual Capital as 'Knowledge that can be converted into value.

Laurence Prusak of Ernst and Young (later, IBM consulting packaged and sought to characterize IC as Intellectual material that has been formalized, captured and leveraged to produce a higher-valued asset. Choudhury J (2010). In Salman (2011) his own defined IC as a form of knowledge, intellect, brain activity which uses knowledge a source of value creation. A further definition of IC by Dadashinasab, Sofian (2014). Have it that employee knowledge capabilities, creativity and innovation, organizational structure or relational issues can be recognized as IC due to the convention of employee implicit knowledge into explicit knowledge of the organization.

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Roos (2014) and Bontis (2000) submit that IC is recognized as a set of intangible assets such as resources, competences, and capabilities which increase not only firm performance but also lead to organizational value creation. Ismiyanti and Rebbica (2017) observed that there is no universal definition for intellectual capital but the cause and effect relationship between IC and value creation is at best, indirect.

Intellectual Capital (IC) in Milost (2013) as postulated by Edvinsson (2013) is derived insights about head value, future earning capabilities based on Human Capital, Structural and Relational Capital. Onaolapo (2016) gave a most comprehensive definition of IC when he defined it as "a set of knowledge, information, intellectual property and expertise which can be used for the purpose of creating wealth. Roos(2013) defined IC as the sum of company's members' knowledge and practical translations of this knowledge. Milost (2013) submits that different authors has identified Intellectual Capital with diverse nomenclature such as Invisible Assets (Mavridis, & Kyimizoglou 2015) Core Competence (Kotler (2005), Knowledge assets Stewart (1997) intangible resources Ranmahd, M (2014). intangible assets (El –Bannany 2016). However, the term 'intangible assets' seem to be more popular and acceptable for obvious reasons especially with its adoption by the International Accounting Standard Committee through the pronouncement of IAS 38 and other related standards.

Financial performance in relation to Intellectual capital connotes notable actions or achievements which accrue to an enterprise as a result of IC measurement and application (Anuonye, 2015). The traditional monetary bookkeeping is unable to look at the real value of the firm where it only measures physical assets (Lina, 2014). The purpose of financial statements is to provide information about the results of financial position, performance, and conditions of changes in the company's financial position that are beneficial to users in making economic and business decisions. Users can find out the condition of the company by assessing financial performance based on an analysis of financial ratios. Subramanyam (2014) suggests that ratio analysis indicates a relationship that is significant among the posts in financial transactions, so that it becomes the basis of comparison in obtaining information on company conditions. Regarding this, it is interpreted that the process of measuring financial performance is directed at maintaining the going concern concept by managing intellectual capital.

Human Capital consists of the skills, competencies and abilities of individuals and group (Stewart, 1997). Human Capital is interpreted as employee values creating potentials depicted in the knowledge, competencies, skills, experiences, abilities and talents of firm's employees and managers. Human capital captures knowledge, professional skills, experience and innovativeness of employees within an organization (Puniayasa & Triaryati 2016).

Human capital is the knowledge, skills and talents of those who do business individually in providing solutions to customers. The enterprises should aim to employ those who have high level of knowledge or to recruit them as consultants in order to utilize their knowledge temporarily, to train the employees continuously, and to ensure that the conditions and ambiance

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that is needed for keeping the qualified personnel are suitable, with an aim to increase human capital. Accordingly, the enterprises should train human capital continuously with a sustainable training approach in order to be able keep pace with change. Sub components of human capital can be listed as know-how, training, and characteristics specific to business, business assessment, knowledge related to work, competition related to work, power of entrepreneurship, innovation, and ability to comprehend before and after the process, changeability (IFAC, 2016). The power of human capital possessed by companies is expressed by the knowledge of employees, the type of employees possessed by the companies, and the speed of sharing of the created knowledge (Edvinsson & Sullivan, 2015).

Structural capital is defined as knowledge assets that are indeed company's' property and includes intellectual property such as patents, copyright and trademarks; processes, methodologies, models; documents and other knowledge artifacts, computer networks and software; administrative systems so forth (Stewart, 1997). It comprises of the knowledge, organizational culture, intellectual procedure, process, philosophy, systems, databases and contracts and explains the structures and processes employees develop and deploy in order to be productive, effective and innovative, Boujelbene and Affes (2013). Structural capital is the supportive infrastructure, processes and databases of the organization that enable human capital to function, Bontis, *et.al*, 2000; Maddocks and Beaney, 2002). Structural capital is owned by an organization and remains with an organization even when the people leave including processes, patents, and trademarks, as well as the organization's image, organization, information system, and proprietary software and databases. Wartiningtyas and Musdholifah (2016) as cited by Uadiale and Uwuigbe (2016) further classified structural capital into organization, process and innovation capital:

- i. Organizational capital includes the organization philosophy and systems for leveraging the organization's capability.
- ii. Process capital includes the techniques, procedures, and programs that implement and enhance the delivery of goods and services.
- iii. Innovation capital includes intellectual property such as patents, trademarks and copyrights, and intangible assets, Ademola OJ, Kemisola OC (2014). Intellectual properties are protected commercial rights such as patents, trade secrets, copyrights and trademarks. Intangible assets are all of the other talents and theory by which an organization is run.

Structural capital is more permanent assets that remain when intellectual assets arising out of customers, employees and strategic partnerships are ignored. At this point, structural capital is the capacity of an organization to engage in and achieve a business with its information and corporate culture. It is not possible for enterprises to fully possess the human capital. Even if human capital can be thought of as an internal element that is possessed, knowledge and skills of employees can only be rented, their ownership cannot be acquired. However relational capital is an external element. However, structural capital is an internal element that exists in the organization which is more long term but which is quite difficult to gain Sultan (2018). For

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example; Thomas Edison has, by founding the company which converted into General Electric later on, transformed its own human capital into structural capital. Individual capabilities, discoveries or successes should enter under a corporate roof.

Every new information that is earned to the corporation both contributes to the structural capital and enriches the intellectual capital of the corporation.

Resource-Based Theory Resource-based theory: This theory focuses on ideas that develop in strategic management concepts that have the potential that companies gain excellence if the company has superior resources (Barney *et al.*, 2012). The company's capability in managing good quality resources and utilizing the use of tangible assets and intangible assets that are strategic in nature, can potentially provide added value as a competitive advantage for companies to improve financial performance.

Value Added Intellectual Capital (VAICTM) is a method used to measure intellectual capital by assessing the efficiency of value added as a result of the company's intellectual capability (Pulic, 1998). An important component in measuring intellectual capital using the (VAICTM) method according to Ulum (2017:119) consists of: (1) Employed capital is an indicator of value added formed on physical capital and financially managed companies efficiently. (2) Human capital is the ability and characteristics of employees including knowledge, expertise, behavior, experience, and emotional possessions of employees that can be contributed to generate added value for the company. (3) Structural capital is the ability and knowledge possessed by the company including information systems, procedures, and databases to meet the operational needs of the company and as a supporter of human capital in order to create added value for the company.

Asika and Chelichi (2017) in their study intellectual capital on financial performance of Corporate Organization determine the adoption of intellectual Resource on the financial performance of Corporate Organizations. Specifically, the study sought; to determine the extent at which increase in staff salary has affected organizational financial performance; to ascertain if the increment in staff salaries has contributed positively on organizational profitability and to evaluate the extent at which staff retirement benefits has effect on organizational financial performance. The study revealed that increase in staff salary has positive effect on organizational profitability, also that the level of increment in staff salaries has influence on organizational profitability and also discovered that staff retirement benefits have positive effect on organizational financial performance. The study recommends among other things that the relevant authorities should look into coming up with a financial reporting standard on human resource activities. Also that organization should enhance the retention of education and training on staff so as to avert wastage of knowledgeable investment.

Azubike (2016) studied the effect of intellectual capital on financial performance of manufacturing in Nigeria using content method of analysis and linear regression model and

discovered that staff cost significantly affects return on assets, net profit margin and return on capital employed of banks. Secondary data were used. They recommended that there should be a uniformed standard for identification and measurement of human capital assets.

Ezeagba (2016) in his study *Effect of Human Capital Development on the Financial Performance of manufacturing in Nigeria: A Study of Selected Public Quoted Commercial Banks (2005-201)* examined the relationship between human capital development and financial performance using Ex-post facto research design and simple regression technique to analyzed and establish the relationship between the variable and to test the hypotheses. It was discovered that there is no significant relationship between human capital development and Earnings per Share of banks in Nigeria. However human capital was seen to have a strong positive relationship with net profit margin, return on asset , and return on equity and further revealed that human capital development accounts for 81.8%, 75% and 11.5%, contribution in Net Profit Margin, Return on asset and Return on equity of banks in Nigeria respectively, The study shows that the importance of human resource development cannot be overemphasized in the banking industry and that proper and adequate investments in human capital development in the banking sector will indeed bring about positive improvement in their organizational performance. The study recommends that effort should be intensified by the banking institution and government to increase investment on human capital, which will in-turn lead to an increase in the financial performance of these institutions and country at large.

Olowolaju and Oluwasesin (2016) examined the effect of human capital expenditure on profitability of quoted manufacturing companies in Nigeria using descriptive and inferential statistics. They discovered that all the explanatory variables have positive relationship with profitability and that expenditures on health contribute more to the profitability of firms than expenditures of salaries and wages, training and contribution to pension. The study recommends that more resources should be channel towards human capital expenditures especially salaries and wages and contribution to pension.

3.0 METHODOLOGY

This study shall employ ex-post facto research methods by collecting relevant information on intellectual Capital. The population for this study comprises of all the 17 listed industrial goods companies in Nigeria. Stock Exchange listed as at December 2018. The study will use filters in order to generate accurate analysis. Firstly, only those companies which have been in operation for at least ten years after being listed in the Nigerian Stock Exchange as at 31 December, 2018 will be selected. Secondly, annual reports of the company with relevant data to the study must be available at the Nigerian Stock Exchange. Companies that did not meet any of these criteria shall be excluded. This is in line with the study of Kurawa and Kabara (2016). Upon applying the two filters, 10 companies qualified as the working population of the study which also serves as

sample size. Pulic specification test was used to decide the appropriate panel effect mode for the study below is the model specification, variable definition and measurement:

$$ROA = f(CEE, HCE, SCE) \dots \dots \dots (1)$$

$$L_n ROA = \beta_0 + \beta_1 CEE + \beta_2 HCE + \beta_3 SCE \dots \dots \dots (2)$$

$$L_n ROA = \beta_0 + \beta_1 CEE + \beta_2 HCE + \beta_3 SCE + \mu_t \dots \dots \dots (3)$$

Where:

β_0 is the Intercept

$\beta_1, \beta_2, \beta_3$ = are the various slope coefficients

μ_t = is the error term

ROA = Return on Assets

CEE = Capital employed efficiency

HCE = human capital efficiency

SCE = structural capital efficiency

Variables of the study

Return on Asset (ROA): profitability shows the degree to which a firm's revenues exceed its cost. ROA is an indicator of how profitable of industrial goods companies is in relation to its total assets. It gives an idea as to how efficient the management uses assets to generate earnings. It is the ratio of the net income (Less preference dividends) divided by book value of total assets as reported in the annual report; (Williams and Firer, 2003; Chen 2005). It is expressed mathematically as; $ROA = \text{Net income} / \text{Total assets}$. VAIC is a composite sum of two major indicators; these are:

- (1) **Capital Employed Efficiency (CEE)** - indicator of value added efficiency of capital employed which is defined as the book value of a firm's net assets.
- (2) **Human Capital Efficiency (HCE)** - indicator of value added efficiency of human capital. Total salary and wage costs are an indicators of a firms human capital (HC) and.
- (3) **Structural Capital Efficiency (SCE)** - indicator of value added efficiency of structural capital. The two sub-components of VAIC form the independent variables in this study.

The equation below formalizes the VAIC relationship algebraically;

$$VAIC = CEE + HCE + SCE \dots \dots \dots (4)$$

Where VAIC = VA intellectual coefficient of the companies

CEE = capital employed efficiency coefficient of the companies

HCE = human capital efficiency coefficient of the companies

SCE = structural capital efficiency of the companies

VA = value added by each year for the companies

Pulic (1998) states the higher the VAIC coefficient, the better the efficiency of VA by a firms total resources. The first step in calculating CEE, HCE and SCE is to determine a firm's total VA. This calculation is defined by the following equation.

$$VA = I + DP + D + T + M + R + WS \dots \dots \dots (5)$$

Where; VA (value added) for the companies are computed as the sums of interest expense (I), depreciation expenses (DP); dividends (D), corporate tax (T), equity of minority shareholders in net income of subsidiaries (M), and profits retained for the year (R) wages and salaries (WS).

Public (1998) further states that CEE is the ratio of total VA divided by the total amount of Capital Employed (CE) where capital employed is defined as the book value of a firm's net asset. CEE is represented algebraically as;

$$CEE = VA/CE$$

Where CEE = capital employed efficiency coefficient of the companies.

VA = VA of the companies and

CE = book value of the net assets of the companies

HCE = is calculated as the ratio of total VA divided by the total salary and wages spent by the firm on its employees. The equation is shown below

$$HCE = VA/HC$$

Where: HCE = human capital efficiency coefficient of the companies,

VA = VA of the companies and

HC = Total salary and wage cost of the companies

In order to calculate SCE, it is first necessary to determine the value of a firm's Structural Capital (SC). Pulic (1998) proposes a firm's total VA less its human capital is an appropriate proxy of a firm's SC.

$$\text{That is: } SC = VA - HC$$

Where; SC = structural capital of the companies

VA = VA of the companies and

HC = total salary and wage expenditure of the companies.

Based on prior empirical research findings, Pulic (1998) argues that there is a proportionate inverse relationship between HC and SC in the value creation process attributable to the entire intellectual capital bases, the less human capital participates in value creation, then more structural capital is involved. Consequently, Pulic (1998) argues the formula for calculating SCE differed to that for CEE and HCE respectively. Specifically, Pulic (1998) states SCE is the ratio of a firm's SC divided by the total VA. The relationship is shown in the equation below.

$$SCE = SC/VA$$

Where = SCE = structural capital efficiency coefficient VA of the companies,

SC= structural capital of the companies and

VA = VA of the companies

4.0 RESULTS AND DISCUSSION

Descriptive Statistics

Table 1 reports the descriptive statistics of the dependent and independent variables for the panel period from 2008 to 2018. The table presents the mean, minimum, maximum and standard deviation for the panel data variables for the period from 2008 –2018.

Table 1

Summary of Descriptive statistics

Variable	Mean	Standard Deviation.	Minimum	Maximum
CEE	5.882	1.9433	1.321	9.310
HCE	4.183	1.2247	3.431	8.312
SCE	6.44	2.1617	3.413	9.512
ROA	5.92	2.3437	-3.521	9.419

Source: Stata 12 Output (2018)

For the industrial goods companies included in this study, the average Return on asset (ROA) was 5.92% while the minimum and maximum return being negative 3.5% and 9.4%, respectively with standard deviation of 2.34%. It also implies that the companies are performing better in term of their assets comparing the minimum and maximum respectively. Descriptive statistics merely presents the statistical attributes of the variables in the model of the study.

For CEE the mean value is 5.882, the minimum value is 1.321 and the maximum value is 9.310. The value of standard deviation of CEE is 1.9433. This implies that on average capital employed of industries goods companies does not earned less than 5.8% ROA. For ROA, the mean value is 5.8 which indicate that ROA is low to minimum value of 1.321 and the maximum is 9.310, where standard deviation is 1.9433 for the overall companies in this study.

For HCE the mean value is 4.183, the minimum value is 3.431 and the maximum value is 8.312. The value of standard deviation of CEE is 1.2247. This implies that on average human capital efficiency of industries goods companies do not earned less than 4.1% ROA.

The results reveal that the mean value of SCE is 5.92; this means that SCE tends to be very low because the minimum value is -3521 and the maximum is 9.419 while its standard deviation is 2.3437.

Correlation matrix

Shows the summary of correlation coefficient between dependent variables (EPS) and explanatory variables. From the table it was observed that multicollinearity was not a threat to the model variables.

Table 2
Correlation coefficient matrix

Variable	CEE	HCE	SCE	ROA
CEE	1.0000			
HCE	0.1365	1.0000		
SCE	0.5261	0.0378	1.0000	
ROA	0.3271	0.1422	0.7062	1.0000

Source: Stata 12 Output (2018)

As portrayed in table 2, capital employed efficiency; human capital efficiency and structural capital efficiency have positive correlation with the performances of the industrial goods companies. However independence capital employed efficiency, human capital efficiency and structural capital efficiency have positive relationship with Return on assets of the industrial goods companies. The correlation matrix also revealed the relationship between explanatory variables. The correlation matrix has also indicated that the multicollinearity is not a threat to the model variables as all correlation coefficients are below the threshold level of 0.8 (Gujarati, 2004)

Table 3: The Regression Analysis

ROA	Coef.	Std. Err.	t	P>/t/	[95% conf. interval]	
CEE	0.3521	0.1664	2.12	0.047	0.0059	0.6984
HCE	0.3981	0.2632	1.51	0.145	-0.1491	0.9455
SCE	0.7449	0.1483	5.02	0.000	0.4364	1.0534
-cons	-3.0986	2.0653	-1.50	0.148	-7.3937	1.1964
F-statistics				0.0002		
R- Squared				0.61		
Adj R-squared				0.55		

Source: Author's Computation using Stata version 12 Significant Level At 0.05

The empirical result of the study under multiple regression result, shows that capital employed efficiency have positive and statistically significant effect on the financial performance of the

industrial goods companies. Though significantly, this finding was consistent with findings of (Fama & Jensen, 2013; Adetunji and Olawoye, 2015) who advocate that high capital employed efficiency has positive effect on the financial performance of industrial goods companies but contradict with findings of Dallas, G (2004) who states that the capital employed efficiency has no or little effect on financial performance of companies. It has been also validated by the positive coefficient of 0.3521 which means that, an increase in CEE by one more unit, other independent variables remaining constant increases the firms' financial performance by 35%. This implies that, CEE has a positive and significant influence on ROA.

Similarly, under this model, relationship between human capital efficiency and Return on assets is positive and insignificant at 5% level of significance, this can be explained by observing the positive "t" value of 1.51 and $P > |t|$ 0.145, which shows that positive coefficient of 0.3981 attests that, an increase in HCE by one more unit, other independent variables remaining constant, increase the financial performance of industrial goods by 39%. This is also in line with the findings of Chan (2011) in Hong Kong. Interestingly structural capital efficiency has positive relationship with return on asset and also statistically significant effect on the return on asset of industrial goods companies. This finding compliments with (Green, 2005); Anthony, 2007 and Cassandra 2009 revealed the positive effect of structural capital efficiency on the performances of companies.

In conclusion, the above variables have jointly explained the dependence variable with 61%, which means the model, is fit to be used with the above explanation.

CONCLUSION AND RECOMMENDATIONS

Resulting from the findings of this study, we hereby conclude that there is a significant effect of capital employed efficiency on return on asset of industrial goods companies in Nigeria. Thus, having a CEE with a larger proportion of capital employed will boost the financial performance of the companies. These we conclude is as a result of the fact that capital employed is independent are more likely not to be swayed by wrangling within the companies and therefore will make contributions that will favour the company instead of individuals.

The research also concludes that the human capital efficiency is vital determinant of the financial performance of industrial goods companies in Nigeria. Thus, within certain limits, human capital efficiency improves return on asset which is proxies of financial performance. For example, ten years (descriptive statistic result above) of human capital efficiency with competent and experienced capital efficiency will have a wealth of knowledge to draw from for the success of the company. Furthermore, the research has also concluded, that structural capital efficiency is statistically significant to return on asset of the industrial goods company. Also, it has a relationship with return on asset in industrial company. The study finally offers the following recommendations:

- i. There is need for more invest on intangible assets in industrial goods companies besides investing in traditional factors of production.

- ii. There is also need for policy makers and standard setters to include IC components in the harmonized International Financial Reporting Standard and other local GAAPs due to its relevance to business organizations.
- iii. There is a need to have a separate department called IC department in all organization (both public and private), so that clear and proper records of all components of IC could be kept by the organization.

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