Journal of Accounting and Financial Management E-ISSN 2504-8856 P-ISSN 2695-2211
Vol 10. No. 8 2024 www.iiardjournals.org Online Version

Intellectual Assets Components and Value Creation of Corporate Reporting in Nigeria

Ekwunife Ebele N. & Igbokwe Uchenna A
Department of Accountancy
Nnamdi Azikiwe University, Awka
Mail: ebeleekwunife@gmail.com: au.igbokwe@unizik.edu.ng
DOI: 10.56201/jafm.v10.no8.2024.pg285.293

Abstract
The study investigated the effect of intellectual capital investment and net-worth. Ex Post Facto research design was employed. A multiple regression analysis was used to test the effect the dependence variables has on the dependent variable to further test, the effect of the individual variable on the dependent variables was done in other to determine the extent to which each independent variable affect the dependent, analysis was used to test degree to which the dependent variable statistically correlate with each of the independent variable at 0.5 level of significance. The result shows that intellectual investment has positive influence on non-current asset but the influence is not statistical significant. Changes in intellectual capital investment have negative influence on net worth. The result also shows that changes in intellectual investment have positive influence on the changes in non-current asset. Changes in intellectual investment can influence about twelve percent changes in non-current asset. The study found that changes in intellectual investment have statistical significant effect on changes in non-current asset. Based on the findings, the research recommends that quoted Firms in consumer goods sector should develop a measure for separating the investment in intellectual capital from the expense in intellectual capital.

Keywords: *Net-worth, intellectual capital investment and Non-current assets.*

Introduction

In developed countries, the most important factor of production that gives a firm competitive edge are invisible (Intangible) assets, they are in form of brand name, reputation, trade mark, software research and development, patent, staff skills, strategy, process quality, supplier and customer relationship (Aroh, 2011). Hall (1992) classified intellectual assets as skills and assets; intellectual assets as skills comprises of expertise, distribution suppliers, organizational culture, as assets it comprises of patent right, trade mark, copy right, royalty etc. Lowendah (1977) further classified intellectual assets as comprises of human capital, information based management skill, reputation, brand name, consumer information and corporate culture.

Intellectual capital seen as structural capital, comprises of innovation capital, process capital, consumer capital, management skill etc. these are the vital aspect of intellectual capital which define the long-run survival, profitability and competitive edge of every organization. Intellectual capital has been identified as a set of intangible resources which determine firm performance, growth and long-run survival (Bontis, Keow and Richardson, 2000). This suggests

a causal relationship between intellectual capital and organisation growth. Kaplan and Norton (2004) believe that intangible assets seldom affect firm performance directly, but work indirectly through cause and effect relationship.

Due to importance of intellectual capital to firm growth, survival and performance, most firms invest heavily in hiring, developing and programmes that will enhance their maximum utilization of the resources. Despite this investment in intellectual capital, the relationship between the investment and firm growth has not been established empirically. The investment in intellectual capital like other organization assets can be measured reliably based on cost incurred in training, development, maintaining and retaining. These costs were incurred probably that future economic benefit will be derived from the investment (intellectual assets) during the period. The investment in intellectual capital, if capitalized and disclosed will increase the net assets of firms. Unlike other assets, cost incurred on human assets and structural assets are written off in the year they were incurred but the benefit derived from them exceeds one year. This aggregated approach to intellectual cost has effect on the firms value and growth.

Many studies have been conducted to find the relation between intellectual capital cost and net worth. Most of them are conducted in foreign countries. Few were conducted in Nigeria, Sowunmi, Salako, and Oketokun, (2015) showed that training programmes have positive effect on the performance of commercial bank staff. Kwarbai and Akinpelu (2016) revealed that there is positive significant relationship between Human Capital Efficiency on ROA and EPS, and an insignificant negative relationship between Human Capital Efficiency on Size, lagged Human Capital Efficiency and Number of Employee Growth. The methodology and scope used in those studies was different, some used content analysis, survey and others used ex-post facto. Some of the studies were based on secondary data, and other was based on primary data. Hence there finding were different and contradictory. None of these studies have evaluates the effect of intellectual capital cost on net worth using listed consumer goods firms between 2012 and 2016. The study sought to evaluate the effect of intellectual capital cost on net worth. The specific objectives includes to:

1 Examine if the changes in intellectual capital investment influences changes in Net-worth.
2 Ascertain if the changes in intellectual capital investment has effect on the change in Non-current assets.

Conceptual Review

The standard (IAS 38) defines intangible asset as an indefinable nonmonetary assets without physical substance held for use in production or supply of goods or services of rental or other administrative purpose by an organization.

Intangible of patent, trademark, copy right royalty etc as skill or competence, it includes expertise, distributors, suppliers organizational culture (Hall. 1992). Lawendah (1997) further classify intangible asset as comprising of human capital, information based, management skill, reputation, brand name, consumer information and corporate culture. They could also be relational or competence. Rational resource includes, client loyalty, reputation, organization structures, competence represented by intellectual capital, skill, expertise, structure capital, innovation capital, process capital, consumer capital are the most significant component of intangible assets which define the long-run survival, profitability and competitiveness of every organization.

Intangible Assets and Intellectual Capital

IAS 38 defines intangible assets as a non-monetary assets which are without physical substance and identifiable intangible assets this criteria are initially measured using the revaluation model and amortized on a systematic basis over their lines (unless the assets has on indefinite intangible assets under the conventional accounting practice). Intangible assets under the conventional accounting practice comprises of goodwill, patent right, trade mark, human capital, information, reputation, brand name, corporate culture, expertise, copy rights, royalty, intellectual capital, skills, innovative capital, structures capital, consumer capital etc. Intangible assets can be classified as relational and non – relational.

Bassey and Arinze (2012) in their study of the effect of capitalization intellectual capital investments and its effects on corporate productivity using regression analysis finds that the value of intangible assets determine the future value of corporate organization. Human resources/assets in the bed rock upon which other intangible asset are built especially those that are expansionary in nature. Hanson (1997) in his study of intellectual capital investments in Sweden finds that human assets and its allied grows more in value than the value of their intangible and tangible assets in the normal case or business operation. Hanson belies that human assets have expansionary and long-run survival potential than other assets (intangible) if the investment in human resources/assets are captained the total value of intangible assets will increases.

Intellectual Capital Investment and Net worth

Net worth is the total assets value minus total liabilities of a company; it is based on the value of all assets and liabilities at the carrying value i.e. the value in the financial statement. It comprises of equality share capital, resources, surplus etc. the value of net worth increases when a company consistently make profit and all the profit is not distributed to shareholders (the case of retained profit). It represents the shareholders interest in a company.

When the capital cost incurred on human assets is capitalized, the total value of assets will increase as against the liabilities.

Net worth value = total assets – liabilities. Assets = tangible + intangible assets. Liabilities = short term + long term liabilities.

The value of investment in human resource/assets if capitalizations will increase the total value of the intangible assets consequently increases the total assets used for the determination of Net worth.

Net Worth and Intangible Assets Value: the Lenders perspective

Lenders provide loan facilities for corporate organizational to meet up with investment or operational cash requirements. In assessing the viability of company by lenders, they typically focus only on the tangible assets, this is because placing value on intangible assets is difficult and there is no readily available market for intangible assets.

Most intangible assets can be seen or touched but have monetary value (Rand of 2004). Rand argued that such word as intangible assets is associated with business and large institutions. The value of intangible assets poses problem for lenders (problems of valuation and marketability/liquidation). The common believe among lenders is that there are no readily market for those items (intangible assets), should the lenders reposes and sell the tangible assets to settle debt unlike a stock or bond there is no readily available market for in intangible assets. The price of a stock rises and falls and one can easily calculate the value of the share. This is not

so with intangible assets, though they define the long-run survival and profitability of company, there is no readily market for them.

In attempt to ascertain the worth of companies, lenders and investors take a conservative approach, such that intangible assets such as goodwill on a company balance sheets receives great scrutiny because it is subject to impairment each year, a company has to carry out a revolution test to determine whether it should an impairment charge to reduce the value of its reason, investors/ lenders tend to focus on a company tangible not worth which excludes good will and other intangible.

Sowunmi, Salako, and Oketokun, (2015) examined human resource development as a correlate of performance of the banking industry in Ogun State. Primary and secondary data were used in the study. Primary data were collected from the sampled commercial banks' staff in Abeokuta metropolis while secondary data were sourced from published 2012 and 2013 Financial Statements of commercial banks. Data were analyzed using Ordinary Least Squares and chi-square analyses. The study revealed significant positive relationship between expenditure on human development and each of the financial performance indicators. The study also showed that training programmes have positive effect on the performance of commercial bank staff.

Kwarbai and Akinpelu (2016) examine the impact of Human Capital Efficiency on Corporate Performance of industrial goods companies listed in the Nigerian Stock Exchange Market. For a period of 6 years (2009-2014,) the study apple's the Human Capital component of the Value Added Intellectual Coefficient (VAIC) methodology. Multiple Linear regression models were used for analyzing the relationship between the variables of interest; Employees' growth (EG), Earnings per Share (EPS), Return on Assets (ROA), Human Capital Efficiency (HCE), lagged Human Capital Efficiency and Size of the firms. The finding reveals that there is positive significant relationship between Human Capital Efficiency on ROA and EPS, and an insignificant negative relationship between Human Capital Efficiency on Size, lagged Human Capital Efficiency and Number of Employee Growth.

In a study on the impact of human resource development on the performance of commercial banks in Nigeria by Muktar (2005), he revealed a strong and positive relationship between performance of commercial banks, and human resource development and training. The study found that as at December 1997, about 70% of the staff in commercial banks neither has degree or its equivalent nor do they have any professional qualification. With regards to the working experience 90% of the total staff in commercial banks has at least 3 or more years of working experience. And lastly, courses attended by commercial banks' staff in 1997 have short duration of less than 2 weeks.

Using simultaneous equation model, Nyong (1996) studied the performance of commercial banks in Nigeria. However, the study considered profitability as a measure of banks performance in spite of the high level of undercapitalization. The study sheds more light on the effects of managerial efficiency on the performance of commercial banks. The findings raised serious concern about the quality of human resource especially at managerial level, and the need for concerted efforts to promote staff development programme as a logical first step in preparing for dynamic banking.

Ismaila (2010) utilized ordinary least squares to test the impact of human capital investment on performance of Nigerian banks and Human Capital Efficiency Coefficient method to test the

efficiency of human capital in Nigerian banks. The study found that there is significant relationship between Market Price per share (MPs) and human capital investment; there is a significant relationship between Book Value per share (BVs) and human capital. The study also found that human capital investment has positive impact on the efficiency of banks' employees.

Ekwe (2013) examined 'The Relationship between Intellectual Capitals and Growth in Revenue of Deposit Money Banks in Nigeria' the Value Added Intellectual Coefficient (VAIC) model was used to investigate if there is a positive and significant relationship between the Intellectual Capital indices (such as Human Capital Efficiency, Structural Capital Efficiency and the Capital Employed Efficiency) and growth in revenue of selected banks in Nigeria. The results showed that there was positive and significant relationship between components of VAIC and the growth in revenue of the banks in Nigeria.

Parham and Heling (2015) investigated the efficiency of human capital and its impact on the financial performance of Dutch production companies. Using data from 33 Dutch production companies for a period of 6 years (2007-2012) and applying the Human Capital component of the VAIC methodology the monetary value created by the companies' knowledge workers is measured. The study results revealed that there is positive relationship between HCE and all three corporate performance measures, amongst which it should be referred to the strongly statistically significant relationship.

Methodology

In this section, the research strategies used in the study are discussed. Hence, this chapter look at the research design, population and sample size, sources of date, the method employed for data collection and analysis.

Research Design

This work was predicated on descriptive ex-post facto research design. An ex-post facto design is study that requires the use of variables which the research does not have the capacity to change its state or direction in the course of the exercise (Onwumere 2009).

This study used secondary data, a sample of annual observation on time series covering the period from 2011 to 2015 was employed. All series were collected from the annual report of the companies selected for the study.

Population and Sample size

The Population consists of thirty firms listed under the consumer goods sector of the Nigeria Stock Exchange. The Nigeria stock exchange has a total of 176 listed firms group under 9 sectors, of which the consumer goods sector is one. Those firms were selected based on availabilities of data covering the period selected for the study. Hence the sample size is 20 out of 30 listed firms under the consumer goods sector of the Nigeria Stock Exchange.

Method of Data Collection

The data used for this study were collected from secondary source. The data were collected from the published financial statement of the companies used for the study. The secondary data are human capital cost.

Method of Data Analysis

The secondary data collected was analyzed using descriptive statistics, correlation and regression analysis. The descriptive statistics was used to evaluate the characteristics of the data: Mean,

maximum, minimum, and standard deviation and also checks for normality of the data. The correlation analysis was used to evaluate the relationship between the variables and to check for multi-colinearity. The multiple regression analysis was used to evaluate the effect of the independent variables on the dependent variable. It reveals the degree of influence and effect the independent variables has on the dependent variable.

Model Specification

The model for this thesis is premised on the main objectives of study and anchored on the sub-objectives. A linear regression model was design to test the null hypotheses.

$\Delta NW = f(\Delta INTINV)$ - - - - - - - - - i
$\Delta NCA = f(\Delta INTINV)$ - - - - - - - - - ii

Where
ΔNCA = Changes in non-current asset
ΔNW = Changes in Net Worth
ΔINTINV = Changes in Intellectual Capital Investment
Based on the above, the model can be mathematically expressed as follows;

$NCAit = \beta_0 + \beta_1 INTCit + \varepsilon$ - - - - - - - - - iii
$\Delta NWit = \beta_0 + \beta_1 \Delta INTINVit + \varepsilon$ - - - - - - - - - iv
$\Delta NCA = \beta_0 + \beta_1 \Delta INTINVit + \varepsilon$ - - - - - - - - - v

Where β_0 is the constant, β_1, is the coefficient of the explanatory variables for the model. ε is the error term that captures the stochastic variables in the model, i = is the collection of the firms involved in the study, t is the time series.

DATA ANALYSIS

In analyzing the data, the study used the ordinary least square regressions to identify the possible effects of intellectual capital cost on net worth using selected quoted firms in the consumer good sector. The study conducted some preliminary analysis such as descriptive statistics and correction matrix.

Descriptive Analysis

Table 1 below, provides the summary of the descriptive statistics of the sampled quoted companies in Nigeria stock exchange.

Table 1 Descriptive statistics: The analysis was started by determining the normality of the data suing measures of measures of central tendency and measures of dispersion. The mean measures central tendency and indicated the average value or the sample. Standard deviation is the positive square root of variance and measures dispersion, that is, it shows the extent of the variation from the mean. Skewness and Kurtosis show the normality of the distribution. A distribution is said to be normal when skewness is approximately zero and kurtosis is three.

Table 2 Descriptive Statistics Variables.

	N	MEAN	Std. DEV	SKEWNESS		KURTOSIS	
		Statistics	Statistics	Statistics	Error	Statistics	Error
ΔNW	12	41.1206	210.6255	369	0.637	1.339	1.232
ΔNCA	12	16.1622	164.0627	1.003	0.637	1.618	1.232

ΔINTINV	12	27.3939	152.4414	1.496	0.637	1.670	1.232

Source: Extract of computation from SPSS 11

From the table 4.2 above, the mean of ΔNW, ΔNCA and ΔINTINV are 41.1206, 16.1622, and 27.3939. These values suggest the average human resources cost, noncurrent asset, intangible asset, total asset, net asset and net worth. The variability of these cost/assets is reported with the standard deviation. The standard deviation for the variables are (ΔNW 210.6255, ΔNCA 164.0627 and ΔINTINV152.4414) The result indicated that the mean are larger than the standard deviations. This suggests that the variability of the data were not wide.

The result of the skewness must be 0 (or it's approximate) and kurtosis must be 3 (or its approximate) for the variables to be described as normally distributed. From table 4.2, the skewness and kurtosis appear to be away from 0 and 3 respectively. This indicates that the variables are not normally distributed.

Table 3: Correlation Analysis

VARIABLES	ΔNW	ΔNCA	ΔINTINV
ΔNW	**1.0000**		
ΔNCA	**-0.0208**	**1.0000**	
ΔINTINV	**0.1879**	**0.2983**	**1.0000**

Source: Extract from computation of SPSS

Correlation is a univariate analysis that shows the level of direct relationship between two variables. The correlation matrix of the variables employed in the study is presented in table 4 above. The table presented all possible bivariate combinations of all the employed variables.

The analysis hence showed whether any of two of the variables correlations. The degree of correlation between HRI and other variables are (ΔNW = 0.0360, ΔNCA = 0.2859, ΔINTINV = 0.620). The results showed that NCA, INTC, ΔNCA and ΔINTINV have strong positive correlation and all the correlation are statistically significant at 5%. Then INTINV has very weak correlation with ΔNW, and the correlation is not significant.

Regression Analysis

Table 1 Regression analysis

Variables	F-stat	R.sq (Adj)	Coeff	t-test	P-Value
ΔNW and ΔINTINV	4.6701	0.2105	-7.9340	0.4324	0.7080
Δ NCA and ΔINTINV	3.7734	0.6576	12.3477	5.3211	0.0487

Source: researcher (2020) summary of multiple regression analysis result.

Analysis Interpretation

Hypothesis One

The regression analysis result of the relationship between changes in intellectual capital investment and net worth. Showed R.Sq (Adj.) is 0.2105 (21%), this means that 21% changes in net worth is caused by the changes in intellectual capital investment. The F-test is 4.6701, this reveals that the model is well specified. The coefficient value of -7.9340 indicates that #1.00 increase in intellectual capital investment will lead to #0.79 decrease in net worth, the t-test value of 0.4324 reveals that intellectual capital investment has positive impact on the value of net worth assets while the probability value of 0.7080 indicates that the impact is not statistically significant even at 10% level. Based on the analysis result, the study therefore accept the null

hypothesis and rejects the alternate hypothesis, the study therefore conclude that intellectual capital investment has no significant effect on net worth.

Hypothesis Two

The regression analysis result of the impact between changes in intellectual capital investment and changes intellectual capital investment showed R.Sq (Adj.) is 0.6576 (66%), this means that 66% of the changes that occur in net worth is caused by the changes in intellectual capital investment. The F-test is 3.7734; this reveals that the model is well specified. The coefficient value of 12.3477 indicates that #1.00 increase in intellectual capital investment will lead to about #0.12 increase in changes in net worth, the t-test value of 5.3211 reveals that changes in intellectual capital investment has positive impact on the changes in net worth while the probability value of 0.0487 indicates that the impact is statistically significant even at 5% level. Based on the analysis result, the study therefore accept the alternate hypothesis and rejects the null hypothesis, the study therefore conclude that changes intellectual capital investment has positive significant effect on changes in net worth.

Conclusion and Recommendations

The study investigated the relationship between intellectual capital investment and net-worth. A multiple regression analysis was used to test the effect the dependence variables has on the dependent variable to further test, the effect of the individual variable on the dependent variables was done in other to determine the extent to which each independent variable affect the dependent, analysis was used to test degree to which the dependent variable statistically correlate with each of the independent variable at 0.5 level of significance.

The result shows that intellectual investment has positive influence on non-current asset but the influence is not statistical significant. Changes in intellectual capital investment have negative influence on net worth. The result also shows that changes in intellectual investment have positive influence on the changes in non-current asset. Changes in intellectual investment can influence about twelve percent changes in non-current asset. The study found that changes in intellectual investment have statistical significant effect on changes in non-current asset.

The analysis result showed strong positive relationship exists between ΔNCA and ΔINTINV all significant at 5%, while ΔNW and ΔINTINV has no significant relationship.

The expense are those whose benefit does not exceed the accounting years they are charged to the statement of comprehensive income while the investment, the benefit exceed, the current year are incurred, they capitalize to the statement of financial position and subsequently amortized, impaired or depreciated over the useful lives of the assets.

Based on the findings, the research recommends that;

1. Quoted Firms in consumer goods sector should develop a measure for separating the investment in intellectual capital from the expense in intellectual capital.
2. Quoted Firms in consumer goods sector should invest more in intellectual capital as the changes in intellectual capital will influence positive changes in non-current asset.

References

Abssey, E. & Arzizeh, O. (2012). Capitalized human resources cost and its influence on corporate productivity. A study of selected companies in Nigeria. *International Journal of Finance Resource 3(2).*

Ekwe, M. C. (2013). The Relationship between Intellectual Capitals and Growth in Revenue of Deposit Money Banks in Nigeria. *Business, Economics Research Journal of Finance and Accounting.*

Hall, N. (1992). The strategic analysis of intangible resource. *Journal Strategic Management 13(2) 135-144.*

Hekimian, J. & Jones, C. (1967). Put people on your balance sheet. *Harvard business review janurary gebruary : 88-96.*

IAS 39 (1998). Intangible Assets. Issued September 1998. *Retrieved on 6th April 2016 from* http://wwwiasc 1998.

Kwarbai, J. & Akinpelu, M. (2016) Human Capital Efficiency and Corporate Performance: The Nigerian Perspective *The International Journal of Business & Management, 4(3).*23 Apr 2016

Lowendah, C. (1998). The future world of work: implications for human resource costing and accounting. *Journal of human resource costing and accounting. 3: 9-29*

Parham, S. & Heling. G.W.J. (2015). The Relationship between Human Capital Efficiency and Financial Performance of Dutch Production Companies. 6(8). *Research Journal of Finance and Accounting* www.iiste.org ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online)

Sowunmi, S. O., Eleyowo, I. O., Salako, M. A. & Oketokun, F. O. (2015). Human resource development as a correlate of performance of the banking industry in Ogun State, Nigeria. *Journal of Economics And International Finance*. 2006-9812. DOI: 10.5897/JEIF