

## **HUMAN CAPITAL ACCOUNTING AND FIRM PERFORMANCE: A STUDY OF OIL AND GAS FIRMS IN NIGERIA**

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### **ABSTRACT**

Our paper examined human capital accounting and firm performance in the oil and gas sector of Nigeria, human capital as a foundation for corporate profitability. Performance in the Nigerian oil and gas industry has been practical at low ebb recently for numerous reasons including volatility of oil prices, obsolete laws and regulation pipeline vandalism, lack of government funding. Recently, covid 19 pandemic posed serious challenge. The main objective is to investigate human capital accounting and financial performance of oil and gas companies in Nigeria. Hypothesis were formulated to empirically guide this study, the study adopted expo facto research design. The population of the study is quoted nine (9) downstream oil and gas firms in Nigeria as listed on the Nigerian Stock Exchange (NSE) as at 2018. The result shows that regression result demonstrate that the relationship between compensation cost and market share is positive and statistically significant. Findings also shows that the moderator variable firm size do not moderate the relationship between human capital accounting and financial performance. Therefore, we recommend the 3 Rs for the human resources of oil and gas companies in Nigeria.

**Keywords:** capital, performance, human capital accounting, firm, cost

### **INTRODUCTION**

The rising implication of human capital accounting on economic success of oil and gas firms in Nigeria cannot be overemphasized. This necessitates organizations in the contemporary world to identify the position of human capital as a foundation for corporate profitability. Investment in training cost, compensations cost and superannuation cost as a component of human capital accounting is not given the required recognition despite its contribution to economic benefit of organizations in Nigeria.

Human capital development concept addresses the management of a company's human resources (employees and individual contractors), as a key asset to delivering long-term value. It includes factors that affect the productivity of employees, such as employee engagement, diversity, and incentives and compensation, as well as the attraction and retention of employees in highly competitive or constrained markets for specific talent, skills, or education. It also addresses the management of labor relations in industries that rely on economies of scale and compete on the price of products and services, or in industries with legacy pension liabilities associated with vast workforces. Lastly, it includes the management of the health and safety of employees and the ability to create a safety culture for companies that operate in dangerous working environment as well as product

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innovation and looking at efficiency and responsibility in the design, use-phase, and disposal of products.

### **Problem Statement**

Performance in the Nigerian oil and gas industry has been observed to be at low ebb in recent times for many reasons including volatility of oil prices, obsolete laws and regulation pipeline vandalism, lack of government funding. Recently, covid 19 pandemic posed serious challenge to the global world and the oil and gas companies in Nigeria is not left behind. This lead to downsizing of oil and gas workers and use of cheap labors as a survival strategy. An organization can contribute positively to its market share if quality human capital is placed in the right place. Addressing the human capital development gaps requires an understanding of three key skill areas: skills required today-given the structure of Nigeria's economy, skills required for the future-driven by drivers of change and vocational skills required to reverse the high levels of poverty in the country.

Most empirical studies about human capital accounting and financial performance are either inadequate or inconsistent with some reporting positive and others reporting negative relationship of sustainability reporting on financial performance. Notable among them are the studies of Qian, Xiaoye, Shiyang, and Zihmiao, (2014); Nicol-Keita (2014); Huselid and Delaney (2017); Dunka (2018) and Emerole, Ibeh and Sampson (2016).

Despite the inconsistencies of these studies, they are mainly skewed towards manufacturing sectors and no known work on downstream firms of oil and gas companies in developing countries like Nigeria on human capital accounting and financial performance with training cost, superannuation cost and compensation cost with corresponding financial performance indices of market share, moderated by firm size between 2011 to 2018. This study therefore tends to fill the above mentioned gap with up to date empirical evidence on human capital accounting and financial performance of oil and gas companies in Nigeria.

Therefore, this study will fulfill the underlisted objective:

1. To determine the relationship between compensation cost and market share of down stream sectors of oil and gas firms in Nigeria.
2. To investigate the relationship between training cost and market share of downstream sectors of oil and gas firms in Nigeria.
3. To x-ray the nexus between superannuation cost and market share of downstream sectors of oil and gas firms in Nigeria.
4. To investigate the moderating effect of firm size on the relationship between human capital development and financial performance of downstream sectors of oil and gas firms in Nigeria.

### **Research Questions**

1. What is the relationship between compensation cost and market share of downstream sectors of oil and gas firms in Nigeria?
2. What is the relationship between training cost and market share of downstream sectors of oil and gas firms in Nigeria?
3. What is the nexus between superannuation cost and market share of downstream sectors of oil and gas firms in Nigeria?
4. What is the moderating effect of firm size on the relationship between human capital development and financial performance of downstream sectors of oil and gas firms in Nigeria?

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### Research Hypothesis

H<sub>0</sub>1: The relationship between compensation cost and market share of downstream sectors of oil and gas firms in Nigeria is not statistical significant.

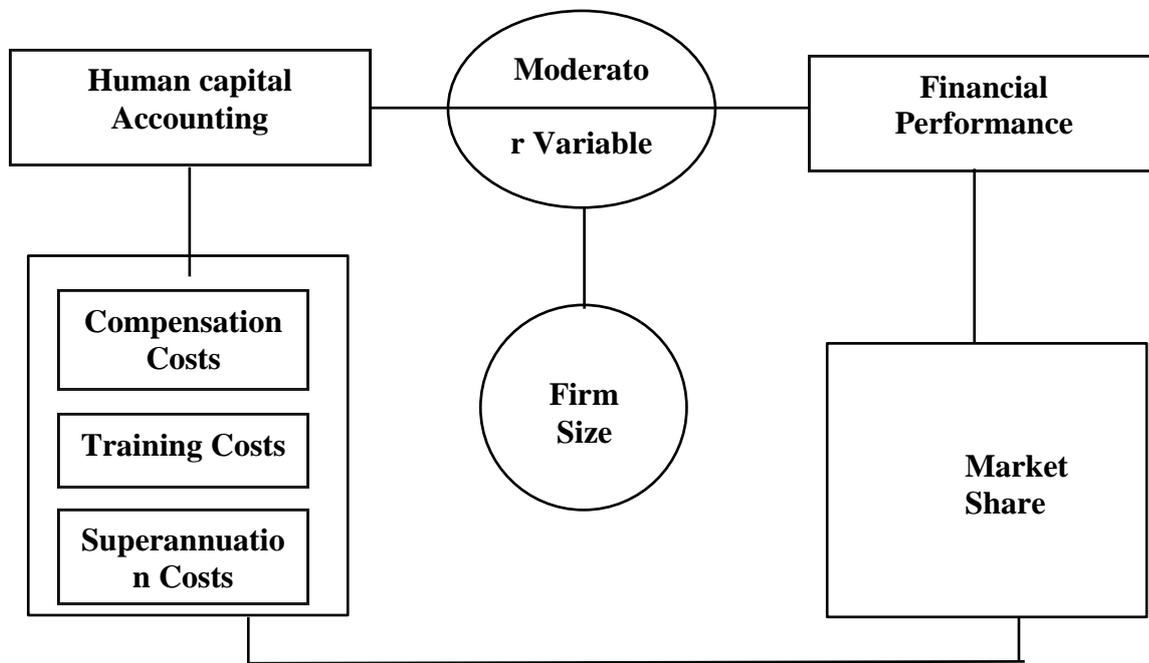
H<sub>0</sub>2: There is no significant relationship between training cost and market share of downstream sectors of oil and gas firms in Nigeria.

H<sub>0</sub>3: The relationship between superannuation cost and market share of downstream sectors of oil and gas firms in Nigeria is not statistically significant?

H<sub>0</sub>4: The moderating of effect on the relationship between human capital development cost and financial performance of downstream sectors of oil and gas firms in Nigeria is no statistically significant.

### Conceptual Framework

Figure 1: Conceptual framework showing the relationship between human capital accounting and financial performance of downstream oil and gas firms in Nigeria



Source: Aondoakaa (2015), Aggarwal (2013), Nwobu 2017

### Human Capital Accounting

Human capital accounting depicts the ascertainment of the quorum of intellectuals and abilities workers brings to bear for the growth and progress of an organization. According to Dunka (2018), human capital encompasses the imperceptible possessions of abilities, effort, and time that workforce brings to devote in their obligations. Bontis and Fitzenz (2002) opined that human capital accounting is the quantum of workers' skills, knowledge and abilities put to bear for the growth of an organization. Human capital as a fundamental mechanism of intellectual capital is a driver in the creation of goods and services (Saleim and Ashour 2006).

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### **Compensation Costs**

Compensation cost depicts the quantum of money received by an employee from an employer as salary or wages. There are four major types of compensation are hourly wages, salary, omission and bonuses. It can also be attributed to money paid to someone in exchange for something that has been lost or damaged. According to Adams (2006), a person's formal education fixes his or her earning power.

### **Training Cost**

Training plays a vital role in human capital development. Workforce that lacks training is related to low competitiveness (Green, 1993). Also, a greater human capital stock is associated with greater productivity and higher salaries (Mincer, 1997). Likewise, training is linked to the longevity of companies (Bates, 1990) and greater tendency to business and economic growth (Goetz & Hu, 1996). Doucouliagos (1997) asserts that human capital as a source not only to motivate workers and boost up their commitment but also to create expenditure in research and development and eventually pave way for the generation of new knowledge for the economy and society in general. Also, for small businesses it is an asset, which is positively associated with business performance. Finally, investment in training is desirable for both personal and social perspective. From the organizational level, human capital plays an important role in the strategic planning on how to create competitive advantages. Subsequent to the work of Snell, Lepax and Youndt (1999), it stated that a firm's human capital has two dimensions which are value and uniqueness. Firm indicates that resources are valuable when they allow improving effectiveness, capitalizing on opportunities and neutralizing threats. In the context of effective management, value focuses on increasing profits in comparison with the associated costs. In this sense, firm's human capital can add value if it contributes to lower costs, provide increased performances.

The human capital theory has undergone a rapid development. Within its development, greater attention has been paid to training related aspects. This is much related to the individual perspective. Human capital investment is any activity which improves the quality (productivity) of the worker. Therefore, training is an important component of human capital investment. This refers to the knowledge and training required and undergone by a person that increases his or her capabilities in performing activities of economic values. Seleim, Ashour, and Bontis (2007) asserts that training attended and team-work practices, tended to result in superstar performers where more productivity could be translated to organizational performances and enhances the quality of developers and volume of market shares (Dooley, 2000).

### **Superannuation Costs**

Superannuation costs depicts the quantum of cost on retirement. This includes defined benefit plans for annuitants.

## **EMPIRICAL REVIEW**

Qian, Xiaoye, Shiyang, and Zihmiao, (2014) x-rayed Human Capital Investment on Firm's Performance: An Empirical Study of Chinese Industrial Firms utilizing information from Chinese Industrial Enterprises Database. The paper concentrated on how human capital venture (counting instruction and preparing speculation) influences the firm execution. The outcomes show that, representatives' instructive level has an essentially positive effect on firm execution; an improved "U" structured relationship exists between preparing speculation and firm execution. Likewise, there is a negative interface between

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workers' instruction and preparing speculation. The lower representatives' instruction is, the higher effect preparing would have on the firm execution. Additionally, under, the lower work escalated enterprises, representatives' instructive level will greatly affect execution, while in the high work serious ventures, the impact of preparing speculation will be more prominent.

Nicol-Keita (2014) examined the effect of Human Capital Management on operational execution at the Gambia National Water and Electricity Company (NAWEC). The analyst applied subjective methodology and utilized semi-organized meeting which was led "up close and personal". Evoked reactions from both the polls and the meetings point to the way that HR practices, for example, work security, specific enlisting, self-guided groups, high pay dependent upon execution, preparing and data sharing when accurately oversaw would produce the ideal outcomes as far as operational execution. The investigation built up that there is a connection among HCM and employment execution. The examination is of an incredible significance on the grounds that monitoring the impact of certain HR rehearses, supervisors can more readily acknowledge how these practices add to the exhibition of their representatives, and discover approaches to improve them so as to expand laborers' activity execution and profitability.

Huselid and Delaney (2017) inspected effect of Human Resource Practices on Turnover, Productivity and Turnover utilizing 968 US-claimed firms with in excess of 100 workers. The outcome shows that Human Resource Practices is factually huge to both prompt representative result on corporate execution. The investigation prescribes that work practices ought to relate to focused system.

Dunka (2018) examined the impact of Human Capital Development on Organizational Performance of the Port Harcourt power circulation organization (PHED). The examination works attempt an overview of the human improvement approaches and projects of the Port Harcourt power conveyance organization (PHED) and found that however there exists a set up strategy and projects for worker, the arrangement and projects are inadequate in substance and complementation.

Deku (2014) contemplated effect of human capital advancement on the exhibition of Ghanaian street temporary workers. The investigation fascinated on Class A2B2 Ghanaian street contractual workers and their follow up on feeder streets extends in the Ashanti Region of Ghana. The examination utilized poll overview approach including 21 experts in a few street development organizations. The poll utilized the Likert scale to get reaction broke down utilizing spellbinding measurements, relative significance record and cross classification to appraise the connection between the factors. The discoveries of the examination uncovered that direction of new representatives was a typical practice in most overviewed organizations towards human capital advancement. The rest of the exercises, for example, Periodic hands on preparing, Performance evaluations, and Sponsorship preparing programs among others were not regarded to be huge. Undertaking execution was likewise inspected against Time, Cost and Quality. While most activities were finished on schedule, these undertakings generally surpassed the planned cost prompting cost invades. Absence of budgetary assets, absence of focal improvement and administrative office, cost of human capital advancement and high representative portability were distinguished as the basic difficulties to human capital improvement. Along these lines, the investigation suggests the requirement for a focal advancement and administrative

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organization to authorize the improvement of aptitudes, information and expert advancement in the Ghanaian development industry.

Rahman (2013) x-rayed Employee advancement and turnover goal. The examination gives exact proof from the scholarly world in Pakistan, in this manner improving the comprehension of similitudes or contrasts in development-attitude-behavior relationship. Furthermore, the examination additionally investigates the social trade hypothesis and human capital hypothesis that influence representative's demeanor and conduct. The examination utilized an example of 329 gathered from 16 state funded colleges in the region with around 3,500 populace for investigation. The speculated connections are tried utilizing Amos 18 through way investigation. The outcomes determine representative's turnover goal is anticipated by worker advancement observations approving the hypothesis of improvement attitude- conduct association. The investigation prescribes that those in the steerage of undertakings should make representative improvement a need to upgrade execution

Muhammad and Naintara (2013) inspected the effect of human capital on organization execution and the interceding impact of representative's fulfillment with his activity. The example size utilized was 200 and the objective region was the telecom area of Pakistan which remembered three driving organizations for the telecom segment of Pakistan (for example Mobilink, Telenor and Ufone). The outcomes demonstrated that human capital speculations has a solid connection with firm execution and worker's fulfillment intercedes the procedure between the two factors.

Odhong, Were and Omolo (2014) analyzed the impact of human capital administration drivers on authoritative execution in Kenya: An instance of speculation and Mortgage Bank Ltd. The examination placed that the abilities and limits that live in individuals that are put to gainful use can be a progressively significant determinant of the country's long haul monetary achievement and that of an association. In Kenya, the commitment of the monetary part to Gross Domestic Product has stayed flimsy and indicating moderate development. The division likewise recorded a moderate development of 6.5 percent in 2012 contrasted with 7.8 percent in 2011. Venture and Mortgages Bank endeavor to accomplish the best universally through successful usage of human capital administration drivers to achieve maintainable aggressive edge in the exceptionally and all around focused financial industry. The Bank's remarkable operational effectiveness kept up at 34.8 percent, making it truly outstanding in the Kenyan Banking Industry. The Bank's prosperity depends vigorously on human capital administration drivers, for example, initiative practices, representative commitment, information availability, learning limit and workforce improvement. The investigation infers that it is conceivable to utilize human capital administration drivers to benchmark authoritative abilities, recognize human capital administration qualities and shortcoming, and connection enhancements in explicit human capital administration rehearses with upgrades in hierarchical execution and get manageable focused edge.

Emerole, Ibeh and Sampson (2016) analyzed Effect of human capital advancement programs in streamlining Employees execution: an investigation of Abia State House of Assembly, Nigeria. The examination embraced overview inquire about structure, essential and optional information was utilized, and survey and oral meeting was utilized in inspiring data from the respondents. The Population of the examination comprise of 300 and fifty seven (357) workers of the association, utilizing Taro Yemen equation the example size was reason to be one hundred and eight nine (189), and straightforward irregular inspecting

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procedure was utilized to choose the respondents. Illustrative insights and Logistic Regression examination was utilized to break down the information got with the guide of SPSS variant 20. The investigation depended on one hundred and sixty-five (165) poll very much recorded and returned. The significant discoveries uncovered that human capital improvement programs utilized in Abia State House of Assembly incorporates: Training, Seminar, Workshop, and Skill Acquisition. With respect to the connection between the human capital improvement programs utilized in Abia State House of Assembly and the exhibition of their representatives, Logistic Regression result uncovered that: preparation, courses, workshops and expertise procurement are the human capital advancement programs that are fundamentally identified with the presentation of representatives. The scientist presumed that preparation, classes, workshops, expertise obtaining improves representatives execution when adequately and effectively actualized and continued. The investigation prescribes that administration should satisfy their duty by sufficiently subsidizing Abia State House of Assembly to empower them support the human capital improvement programs in the association.

## **THEORETICAL FRAMEWORK**

### **Human Capital Theory**

In a deeper sense, however, human capital is more than simply the physical labour of people who work for an organization. It is the entire set of intangible qualities those people bring to the organization that might help it succeed. The theory argues that a person's formal education determines his or her earning power. According to Human capital theory, the key competences, skills, knowledge and abilities of the personnel contributes to organizations competitive advantage.

**Figure 2 : Human capital theory**



Source : Adams (1963),; (Schultz, 1993); Becker , (1993); Swanson & Holton 2001 - Human capital theory

The figure 2 above depicts that if adequate input or resources is invested on training of human resources in an organization, the output or production level will increase and vice versa. This is to say that human capital as a system, the quality of input on it will determine the quality of output it will give out. The key assumption of the human capital theory is that investment in education and training results in increased output that promotes productivity and organizational performance (Swanson & Holton 2001).

According to human capital theory, an adequate investment in people will result in growing economy. Adam Smith is the founding father of human capital theory in 1776. According to Adam Smith differences in wages paid were based on relative ease or difficulty of doing the jobs involved.

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### METHODOLOGY

This study adopted expo facto research design. The population of the study is quoted nine (9) downstream oil and gas firm's in Nigeria as listed on the Nigerian Stock Exchange (NSE) as at 2018. Judgmental sampling technique was used in determining the sample size of nine (9) quoted downstream firms in Nigeria for a period of 2013-2018. The criteria for selection are the firm must have been in operation for at least eight years after being listed in the Nigerian Stock Exchange. Secondly, the annual reports of the company with relevant data to the study must be available at the NSE. Data used for this study are secondary data comprising published annual reports and financial statements. Secondary data was collected for this study and the Spearman's correlation coefficient and multiple regression analysis were used to analyze the data collected and this was computed with the aid of STATA12.

### Operationalization and Measurement of Variables

There are two major variables in this study – human capital accounting and financial performance

Human capital accounting is the explanatory or predictor variable while financial performance is the criterion variable. The choice of the measure of variables in this study was made through a critical review of exact literature after which the items to be used in operationalizing the variables were established.

- (i) **Financial performance** – This refers to the level of financial success recorded by the firm. It is a measure of how fit a firm can use assets from its principal means of business to create revenues. It could be in terms of profitability, return on assets, return on equity, earning per share and so on. The indices used to measure financial performance in this study are market share. Market share denotes the proportion of an industry or a market's total sales, that is made by a company over a stated time period. Market share is calculated by taking the company's sales over the period and dividing it by the total sales of the industry over the same period. This variable is used to give a general idea of the size of an entity when compared to its market and its contenders. Profit before tax as a profitability index is company's profits before corporate income tax.
- (ii) **Moderator variable** - A moderator variable is a third variable that affects the strength of the relationship between a dependent and independent variable. In this study, firm size is the moderator variables. Firm size is derived as a log of the total assets of the downstream firms of oil and gas in Nigeria.
- (iii) **Human capital accounting**. This is the independent variable of the study. Human capital accounting represents the required number of intellectuals and capabilities employees brings to bear for the growth and progress of an organization. This study used compensation cost, training cost and superannuation cost as a measure of human capital accounting of downstream firms of oil and gas companies in Nigeria.

### Model Specification and Estimation

The model formulated for this study is stated below:

$$Y = \alpha + \beta_1(X_1) + \beta_2(X_2) + \beta_3(X_3) + \dots + \epsilon$$

Where:

Y=Dependent variable (FP = MS)

X<sub>1</sub>= Compensation Cost

X<sub>2</sub>= Training Cost

X<sub>3</sub>=Superannuation Cost

The study models are:

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$$MS = f[\beta_0 + B_1COC + B_2TRC + B_3SAC + B_4FS \dots \dots \dots (i)]$$

Where:

- MS = Market Share
- COS = Compensation Cost
- TRC = Training Cost
- SAC = Superannuation Cost
- FS = Firm Size
- $\beta_0$  = Constant Variable Estimated
- $B_1-B_4$  = Unknown Coefficient Estimated for independent variable
- $\mu$  = Stochastic term

To assess whether the regression model is nicely fitted for this study, we conducted, variance inflammatory test, heteroscedasticity and multi-collinearity. Autocorrelation test measures whether the residuals of the regression model are in any way correlated. Heteroscedasticity test measures whether the residuals of the regression model have constant variance or not while multi-collinearity test measure whether the independent variables of the model are correlated or not. Variance inflammatory factor quantifies the severity of multi-collinearity test. The presence of any of the above in a regression model will result in spurious regression.

**Table 1 : Variance inflammatory factor**

Variable	VIF	1/VIF
Compensation cost	1.21	0.827953
Training cost	1.12	0.888899
Superannuation cost	1.06	0.940576
Firm Size	1.04	0.962385
Mean VIF	1.11	

**Table 2 : Descriptive Statistics**

Variable	Obs	Mean	Std. Dev.	Min	Max
MS	56	.1316772	.1071185	.007	.4776
COC	56	2840421	3028231	112283	1.20e+07
TRC	56	437014.3	526540.5	12298	2668604
SAC	56	302155.2	513928.4	15557	2425629
FS	56	17.35943	3.342059	2.4115	21.3276

Note: MS = Market Share; COC = Compensation cost; TRC = Training cost; FS = Firm Size

Source: STATA12 Computation, 2020

Table 2 presents a descriptive statistic of the variables used in the study. The details of the descriptive study are shown above. The minimum, maximum and mean values of market share, compensation cost, training cost and superannuation cost are presented in naira while firm size are in magnitude.

The table 2 above showed that the average mean of MS generated by the sample firms is .1187768 representing approximately 12% with minimum of .02% and maximum of 47% with a standard deviation of 11%, showing that downstream firms control a lower market in oil and gas firms in Nigeria. This is not surprising due to the large volume of imported petroleum product for the past decades. Nigeria’s incapability to refine enough petroleum products internally in order to meet indigenous demands has continued to make downstream sector vulnerable to foreign exchange instability.

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The table 6 above also showed that the average mean of PBT generated by the sample firms is 6153957 representing approximately N6b with minimum of -N18bn and maximum of N17bn with a standard deviation of N18bn. This shows that the business is profitable. This is not surprising due to high demand for petroleum products no matter the cost. Companies and individuals rely on petroleum products for sustainability.

**Table 3 : Correlation Matrix**

Market Share	1.0000				
Compensation cost	0.7115*	1.0000			
Training cost	0.2522	0.3211*	1.0000		
Superannuation cost	0.2826*	0.2391	0.0322	1.0000	
Firm Size	0.2127	0.1763	0.1328	0.0308	1.0000

**Table 4 : Regression Model 1**

Number of obs = 56						
F( 4, 51) = 14.28						
Prob > F = 0.0000						
R-squared = 0.5283						
Root MSE = .0764						
Robust						
MS	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
FS	.0028693	.0031421	0.91	0.365	-.0034387	.009177
COS	2.33e-08	3.74e-09	6.23	0.000	1.58e-08	
TRC	5.07e-09	2.08e-08	0.24	0.808	-3.66e-08	
SAC	2.53e-08	2.07e-08	1.23	0.226	-1.62e-08	
Constant	.0058172	.0546848	0.11	0.916	-.1039672	
	.1156015					

Note: MS = Market Share, COS = Compensation Cost, TRC = Training Cost, SAC = Superannuation Cost, FS = Firm Size

Source: STATA12 Computation, 2020

Table 4 +3above present the model which regress Market Share(MS) against compensation cost, training cost and superannuation cost alongside the moderator variable Firm Size (FS) . The standard robust error in the regression addresses heteroscedasticity. The F statistics in Table 4 shows that the model exhibit excellent fit at  $F(4, 51) = 14.28, p < .0000$  and that the independent variables statistically significantly predict the dependent variable. The independent variables in the model explain 53% of the variation in market share.

**Table 5 : Regression Model 2**

Linear regression		Number of obs		= 58	
		F( 3, 54)		= 4.56	
		Prob > F		= 0.0064	
		R-squared		= 0.1813	
		Root MSE		= 9.637	
FP	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
HC	4.379235	1.263796	3.47	0.001	1.845475 6.912994
FS	.0917567	.4840758	0.19	0.850	-.8787569 1.06227
Constant	-25.76523	13.35794	-1.93	0.059	-52.54628 1.015823

Note: FP = Financial Performance, HC = Human Capital Development Cost, FS =Firm Size,

**Source:** STATA12 Computation, 2020

**Test of Hypotheses**

This section presents the hypotheses for this study and the result from analyzed data. The statistical tool used is the regression analysis. The significance coefficients from the regression output will assist in drawing conclusion on the extent on which the independent variable affects the dependent variables. The coefficient value for each independent variable tells us the total change that takes place in the dependent variable as a result of one-unit change in the independent variable. The regression result from table 4 will be used to interpret the hypotheses.

**Decision Rule**

Accept  $H_0$ : if the p-value of the independent variable is greater than 0.05

Reject  $H_0$ : if the p-value of the independent variable is less than or equal to 0.05.

If the p-value of the independent variable is less than 0.05, then it means that variable is significantly contributing to the variations in the dependent variable and vice versa.

**Test of Hypothesis 1**

$H_{01}$ : There is no significant relationship between compensation cost and market share of downstream oil and gas firms in Nigeria.

$H_{i1}$  There is significant relationship between compensation cost and market share of downstream oil and gas firms in Nigeria.

From Table 4 above, regression result showed that the relationship between compensation cost and market share is positive and statistically significant (co-efficient = 2.33e-08, p-value= 0.000). In fact, ceteris paribus, an increase in compensation cost results in a 233% increase in market share. Therefore, we reject  $H_{01}$  which states that there no significant relationship between compensation cost and Market share.

**Test of Hypothesis 2**

$H_{02}$ : There is no significant relationship between training cost and market share of downstream oil and gas firms in Nigeria.

$H_{i2}$  There is significant relationship between training cost and market share of downstream oil and gas firms in Nigeria.

From Table 4 above, regression result showed that the relationship between training cost and market share is positive and statistically significant (co-efficient = 2.33e-08, p-value= 0.808). In fact, ceteris paribus, an increase in compensation cost results in a 233% increase in market

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share. Therefore, we reject  $H_{01}$  which states that there no significant relationship between compensation cost and Market share.

#### **Test of Hypothesis 3**

$H_{03}$ : There is no significant relationship between superannuation cost and market share of downstream oil and gas firms in Nigeria.

$H_{i3}$  There is significant relationship between superannuation cost and market share of downstream oil and gas firms in Nigeria.

From Table 4 above, regression result showed that the relationship between superannuation cost and market share is positive and statistically insignificant (co-efficient = 5.07, p-value= 0.808).

#### **Test of hypotesis 4**

$H_{04}$ : The moderating influence of firm size on the relationship between human capital accounting and financial profitability of downstream oil and gas firms in Nigeria is not statistically significant.

$H_{i4}$ : The moderating influence of firm size on the relationship between human capital accounting and financial profitability of downstream oil and gas firms in Nigeria is statistically significant.

From table 5 above, the regression result revealed that the moderator variable firm size has a positive and insignificant relationship between human capital accounting and financial profitability (coefficient = .0917567, p-value= 0.850). Therefore, we accept the null hypothesis and conclude that firm size does not moderate the relationship between human capital accounting and financial profitability of downstream oil and gas firms in Nigeria.

#### **DISCUSSIONS OF FINDINGS AND RECOMMENDATION**

The regression result shows that regression result showed that the relationship between compensation cost and market share is positive and statistically significant. In fact, ceteris paribus, an increase in compensation cost results in a 233% increase in market share. Therefore, we reject  $H_{01}$  which states that there no significant relationship between compensation cost and Market share. This collaborates with the studies of Qian, Xiaoye, Shiyang, and Zihmiao, (2014) which states that there is significant relationship between human capital development index and firms performance.

Analysis shows that an increase in training cost leads to an increase in market share, all other variables held constant, but this is not significant at all which led to the rejection of Null hypothesis. This finding corroborates the assertion of (Rahman (2013) which established that there is a broad linkage between training cost and profitability.

The regression result shows a positive and insignificant relationship between superannuation and market and therefore, null hypothesis is rejected (Emerole, Ibeh and Sampson 2016). Findings also shows that the moderator variable firm size do not moderate the relationship between human capital accounting and financial performance. Therefore, we recommend the 3 Rs for the human resources of oil and gas companies in Nigeria. The 3 Rs means re-focus, re-tool and re-learn to become relevant as to encourage

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profitability. The management should strategically align human capital to information and communication technology tool as work from anywhere.

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