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# Human Capital Accounting and Market Value of Oil and Gas Companies in Nigeria

Omole Ilesanmi Isaac, Bamidele Matthew Mayor, Odumeru James
Lecturer, Department of Accountancy, Osun State College of Technology, Esa-oke, Osun State, Nigeria
Lecturer, Department of Accountancy, Osun State College of Technology, Esa-oke, Osun State, Nigeria
Lecturer, Department of Business Administration, Osun State College of Technology, Esa-oke, Osun State, Nigeria

**ABSTRACT:** This study examined the influence of human capital accounting information on the market value of quoted oil and gas companies in Nigeria. The study used secondary data from 2005 to 2014 collected from selected Annual Report and Accounts of all listed oil and gas companies, and Fact Books published by the Nigerian Stock Exchanged. Econometric regression was used in the analysis. The results indicate that human capital cost has a positive and a substantial relevance to share price. Findings suggest that capitalization of corporate investment on its human resource has the propensity of increasing the market value of oil and gas companies and also capable of creating a favorable image for quoted oil and gas companies in Nigeria. The study, therefore recommended that that standard should be created for human resource disclosure and measurement in order to enhance valuation of human capital, ensure uniformity in disclosure and more reliable interpretation and comparison of financial statements

**KEYWORDS**: Human capital accounting, value per price, Market value, Corporate performance.

#### I. INTRODUCTION

The transformation of modern economies from manufacturing to information and knowledge-based requires some modification to accounting and reporting procedures. The fast growth of service organisations in the 21st century, whose major asset is the human resources and the intellectual ability of their work force, prompted the need to look into issues surrounding the capitalisation of human capital costs. The oil and gas companies' major asset is the human resources since all companies need strong and competitive human resource to succeed, thus, the success of oil and gas companies largely depend on the quality of their human resources[1]. According to [16], the hall mark of all successful organizations that distinguishes them from their less successful counterpart is the quality of the people they are able to recruit and maintain. Human capital is one of the valuable strategic assets. It has enormous contribution in the field of inventions and innovation therefore, its importance cannot be overlooked in the knowledge base economy.

Globalization era placed more emphasis on the importance and value of intangible and intellectual assets where business organizations invest huge amount of money in human capital [13] The conventional accounting practice failed to treat human capital cost as intangible non-current asset despite the level of control they have over the resources and probable future cash flow from this investment in question. [11] stated that traditional accounting views virtually all expenditure related to the improvement and intellectual development of an organisation's human resource as expenses. However, there is therefore an increasing need to develop a standard of recognition, measurement and reporting of company's investment in its human capital. That is to say, the standard that will capitalize human capital like their financial commitments on the selection, recruitment of its personnel as well as training programs designed to enhance the value of human assets in the statement of financial position

#### II. STATEMENT OF THE PROBLEM

Studies conducted so far have shown that there is mixed results on human capital accounting relationship with corporate performance. Many authors and scholars have conducted researches on how humans within an organization



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can be valued and reported in the financial statements of such organization.[17]; [6]; [9]; [4]; [5]. However, in Nigeria, the outcome of the research still lack acceptability and little has been done in the area of research in Nigeria to investigate the influence of human capital cost in the determination of market value of the corporate business entity, especially in oil and gas. Some of the companies that have invested heavily in human resources and have applied human resources accounting in one way or the other in Nigeria include Unilever Plc, Nigeria Breweries, Cadbury Nigeria Plc, Nestle Foods Nigeria Plc, Access Bank

Plc, Zenith Bank Plc, amongst others but failed to reflect these costs in the statement of financial position, rather expensed them in income statement [12];[10]. The major challenge now is to ascertain the influence of investment in human capital on market value of the companies in oil and gas sector.

#### III. RESEARCH QUESTION

What is the relationship between a firm's value per share and human capital accounting?

#### IV. OBJECTIVE OF THE STUDY

In line with the research question, the objective of this study is to:

Determine if there is any relationship between a firm's value per share and human capital

#### V. RESEARCH HYPOTHESIS

Ho1: There exists no significant relationship between firms' value per share and human capital accounting

#### VI. LITERATURE REVIEW

The management of human resources in any oil and gas industry in Nigerian is very important, where people's knowledge, skills expertise and experience are fundamental to success of the sector. Valuation of human resource, recording the valuation in the book of accounts and fair disclosure of such information in the financial statements are the demand of the stakeholders in the context of enhancing corporate performance and employees' productivity [14]. These have made human capital disclosure inevitable. Organizations do report on capital and other assets in their annual reports but overlook the most essential (i.e. human capital) without which all other assets cannot function, in the financial statement. The investment on hiring, recruiting, training and developing of human resources are expensed in the income statement rather than capitalizing them in the company's statement of financial position. Today, the amount invested by oil and gas industries to equip their employees is very huge and requires a substantial way of reporting them. Also, the content of information disclose in the company's financial report, which is a way of allowing the investors to know how their funds have been managed and resources (both physical and intellectual) have been put to use in a given period, is considered inefficient; while the inability to recognise and report human capital is a cogent purpose for this.

[3] examined the effect of Human Resource Accounting Information on decision making in Iranian companies, and their work attempted to explore whether investment decisions are affected by human resource accounting information divulged in the annual report of companies, whether there are factors that could interfere with such effects and also examined the evaluation method that is most suitable and consistent with Iranian companies in terms of qualitative characteristics of accounting information. They concluded that human resource accounting information is sacrosanct to optimal investment decision and that the appropriate evaluation method of human resource consistent with the status of Iranian companies is the historical cost method.

[18] investigated the barriers of establishment and implementation of human resource accounting and its effects on corporation managers' decision making process in Iran (from Accounting Association point of view). Their findings showed that the basic reason for Flack of human resource accounting implementation and establishment in Iran are: lack of knowledge of accounting by the information users, absence of enough training by about this system in the university absence of unequivocal standards in using this system in firms and organizations, lack of experts to



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implement this accounting system and also absence of suitable register and reporting of human resource expenditures. Their findings also revealed that the management knowledge of human resource accounting system can change management decision about employees 'employment but it cannot be an ardent factor in their decision regarding firing, resignation and cost during service.

[15] examined the role of Human Resource Accounting Information (HRAI) on the Accounting Information System (AIS) in Jordanian companies listed in Amman stock exchange. The roles of human capital disclosure were assessed on the reliability of accounting information system, operational performance of the companies, cost of reduction and customers' service. The study revealed that human resource accounting has a significant statistical relationship with accounting information system itself, accounting information system development, cost reduction aspect in the accounting information system, the aspect of improving the operational performance of the companies' accounting information system and finally the customers' service.

#### VII. METHODOLOGY

The goal of the paper is to ascertain the impact of human capital accounting (Human Capital Reporting) on firm's value per share using econometric regression analysis models in Nigeria oil and gas companies from 2004 to 2016. Secondary data obtained from the annual financial reports of 8 companies listed in the oil and gas sector were sourced from the Nigerian Stock Exchange.

#### **Pooled Panel Model Specification**

In an attempt to examine the effect of human capital accounting on corporate market value in Nigeria, this study followed the works of [13] of determinants of firm value as represented by the following equation:

$$PERF_{it} = \beta_{oi} + \sum_{i=1}^{n} \beta_{i} X_{it} + \varepsilon_{it}$$
 (1)

Where

 $X_t$  = vector of independent variables of firms i at time t

 $\beta_i$  = coefficients of  $X_{ie}$ 

 $\beta_{ni}$  = firm-specific intercept representing unobservable individual

characteristics

 $\varepsilon$  = error term

The specific model for this study is as follows:

$$DPS_{i,t} = \beta_0 + \beta_1 HCD_{i,t} + \mathbf{u}_{i,t}. \tag{2}$$

Where:

DPS = Value Per Share

HCD = Human Capital Disclosure (In aggregate)

U = error term

HCR .....+/-

The aggregate of the indices for measuring human capital disclosure shall be regressed against the value per share of oil and gas companies to determine the impact of labour cost accounting information disclosure on the value per share of oil and gas companies.

#### **Measurement of Variables**

The dependent variable; Performance used in this study was measured similarly to the widely embraced in the literature as share price and is measured as value per share while Human Capital Accounting is measured as Human Capital Disclosure.



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# VIII. RELATIONSHIP BETWEEN VALUE PER SHARE AND MARKET VALUE OF OIL AND GAS COMPANIES

Dependent Variable: Value Per Share

Method: Panel Least Squares Date: 11/06/17 Time: 17:17

Sample: 2004 2016 Periods included: 13 Cross-sections included: 9

Total panel (balanced) observations: 117

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Salaries & Wages Training Cost Retirement benefits Pension Provident Fund Medical/Health Labour Turnover Ratio	0.897681 0.761878 -0.932719 1.063404 0.480781 -0.453172 -8.788130	0.247981 0.231287 0.466150 0.280767 0.224612 0.178252 1.608649	3.619961 3.294076 -2.000899 3.787502 2.140498 -2.542316 -5.463050	0.0004 0.0013 0.0479 0.0002 0.0345 0.0124 0.0000
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.642712 0.623223 1.129747 140.3960 -176.6800 32.97913 0.0000000	Mean dependent var S.D. dependent var Akaike info criterion Schwarz criterion Hannan-Quinn criter. Durbin-Watson stat		3.260501 1.840514 3.139828 3.305087 3.206921 0.585012

#### **Interpretation and Discussion of Test of Hypothesis**

The result in the table above shows the Panel Least Squares regression test of the null hypothesis of the study. The result showed that there was an F-statistic of 32.979~9p < 0.05). This indicates that the model significantly predicted the dependent variable. In this case, the human capital disclosure factors significantly contributed to the value per share of the oil companies. Furthermore the result showed that there was an r-squared of 0.6427, implying that the predictors accounted for 64.27% of the variation in value per share of the companies. This shows an influence of over sixty percent on the companies' value per share. It can almost be said that a huge proportion of the companies' value per share is determined by their human capital disclosure. This corroborated the findings of [19] & [7] that human capital disclosure is significantly related to share value.

Further examination of the results showed that all the predictors, that is Salaries and Wages ( $\beta$  = 0.898; t = 3.620; p < 0.05), Training Cost ( $\beta$  = 0.762; t = 3.294; p < 0.05), Retirement Benefits ( $\beta$  = -0.933; t = -2.001; p < 0.05), Pension Provident Fund ( $\beta$  = 1.063; t = 3.788; p < 0.05), Medical/Health Cost ( $\beta$  = 0.481; t = 2.141; p < 0.05) and Labour Turnover Ratio ( $\beta$  = -0.453; t = -2.542; p < 0.05) all significantly contributed to the value per share of the companies. This implies that no aspect of the Human Capital Disclosure factors failed to have significant impact on the companies' value per share. This means that the companies have to ensure that no tables are left unturned in attending to costs all aspects of their operations especially with respect to Human Capital Disclosure since all have significant influence on its performance. More especially, Retirement Benefits and Labour Turnover Ratio which have significant negative impacts on the value per share of the companies. It becomes therefore expedient for the oil companies to ensure that all factors that can negatively impair their performance, and productivity are efficiently controlled in order to forestall unprecedented loss. Based on the above, the null hypothesis that human capital disclosure has no



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relationship with dividend share price in Nigerian oil and gas industries is rejected. This means that human capital disclosure has an influence on the share price of Nigerian oil and gas companies, and should thus be given adequate attention.

#### IX. SUMMARY AND CONCLUSION

Companies' management and employees as the value drivers in any company. Human asset is seen as a key factor to the successful operation in manufacturing industry like Oil and Gas Companies. So the costs incurred on personnel should be identified and measured and disclosed on the statement of financial position of an organization as an asset. To a developing country like Nigeria, the introduction of HRA treatment in the financial position of the financial statements of company is of special importance, meaning that Human Capital Accounting become imperative. Specifically, this study evaluated the effect of human capital accounting on firm' value per share of oil and gas oil and gas companies in Nigeria. In order to achieve these objectives, data for fifteen companies were elicited from annual reports and Financial Statements and Fact-book made available by the Nigerian Stock Exchange. Data obtained were analyzed using both descriptive and inferential statistics. The result also indicated that price per share was significantly influenced by human capital indicator since the p-value of the F-calculated for testing the significance of overall influence of human capital disclosure on price per share of 0.00000 is less than the critical value of 5%. This assertion is arrived based on the fact that the p-value of the F- statistics calculates for the testing the significance of overall influence of human capital disclosure on price per share of 0.0000 is less than the critical value of 5%. In addition the coefficient of determination (R<sup>2</sup>) obtains for the test of 0.9833 indicates that 98.33% of price per share is caused by the influence of human capital disclosure at the selected companies hence human capital disclosure is a good explanatory variable for value per share.

This reveals that for the selected companies to continue to make increase value in price per share there is need for the management of the companies to restructure their human capital costs in such a way that it will not affect their price per share negatively. Furthermore, there is need for management to ensure that human capital expenditures are not too high to the extent that it will take the bulk of the profit realized by the industries. This can be achieved by ensuring that there is a proper budget that guides the activities of the companies as far as human capital expenditures are concerned.

Also, there is need for the management to have a robust accounting unit that will see to the day to day computations of human capital costs that relates directly to productivity on which the companies' survival are based. Therefore, it is imperative for the selected oil and gas companies to know which human capital costs are not contributing positively to improvement in price per share and which one are in order to verify the costs to be reduced or totally eliminated.

The study concluded that human capital accounting enhanced market value of Nigerian listed oil and gas companies.

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