Human Resource Accounting Costs Disclosure and quoted Performance of Upstream oil and gas in Nigeria

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Abstract
The transformation of modern economies from services to information and knowledge-based requires some modification to accounting and reporting procedures. The fast growth of service organizations in the 21st century, whose major asset is the human capital and the intellectual ability of their work force, prompted the need to look into issues surrounding the capitalization of human resource expenditures. This aim of this study is to empirically explore the relationship between human resource accounting cost disclosure and quoted performance upstream oil and gas companies in Nigeria. Data were collected from central bank of Nigeria, Federal Inland Revenue Service and Financial Statements of upstream oil and gas companies on Nigerian Stock Exchange. Descriptive Statistics, Ordinary Least Square regression analysis, inter-correlation test, unit root test, multicollinearity, test and Error Correction Model were used in analyzing the study data with the aid of E-view version 10. The result indicate that human resource accounting cost disclosure significantly relate to quoted performance, explaining about 88.1% of total variation in return on equity, all the sub-variables of human resource accounting cost disclosure were each found to significantly relate to quoted performance, sustaining short run equilibrium relationship with return on equity. We therefore conclude that human resource accounting disclosure relate to quoted performance and recommends that quoted service (upstream oil and gas companies in Nigeria should imbibe the culture of capitalizing and reporting all expenditures/investment on human resource accounting cost disclosure that can improve their quality and productivity. There should be a minimum standard of disclosing and reporting human resource value in the financial statements of services companies especially in the statement of financial performance and notes to the accounts.

Keywords: Human Resource Cost Disclosure, Return on Equity, Quoted Performance, Upstream Oil and Gas Companies and Nigeria.

Introduction
Corporate financial performance of upstream oil and gas explains the efficiency or inefficiency of a firm. Strikingly, analysts use the past data to arrive at some conclusions about the firm. the need to report profit as an initial source for investors decision-making is well-documented and profit reported is helpful in different ways such as presentation of a basis to calculate tax, a measure for assessment of oil and gas company’s financial performance achievement, a criterion to manage an economic unit and others that help the economy of the society (Adeniran & Junaidu, 2017’ Agwu, 2018; Hastomo & Aras 2018; Enoruwa., Ezuem & Nwani, 2019; Asamoah., Takieddine & Amedofu, 2020). Oil and gas financial performance is probably the most widely used variable in organizational research today, get it remains one of the most vague and loosely defined constructs. They further confirmed that the struggle to establish a meaning for performance has been ongoing of many years and it is not limited to the field of strategic human resource management (SHRM). According to Okpaki., Atube and Olufawoye
Human Resource Accounting is the process of identifying and measuring data about human resources and communicating this information to interested parties. Bullen and Eyler (2010), Ihendihu et al (2016) Nwaiwu (2020), state that “Human Resource Accounting Cost Disclosure (HRACD) involves accounting for expenditure related to human resources as assets as opposed to traditional accounting which treats these costs as expenditures that reduce profit. Woodruff (1973) defined “Human Resource Accounting as “the identification, accumulation and dissemination of information about human resources in monetary terms. He further explained that “HRACD” is the systematic accumulation of information about changes in investments made in human resources and reporting back that information to operating managers in order to assist them to make better decisions than they would have been able to make without such additional information. Reghar (2011), states that “HRACD” is a method of measuring the effectiveness of personnel management activities and use of people in an organization. Parameswaran and Jothi (2011) referred to the “American Accounting Association definition of human resources accounting as the measuring of data of human resources and communicating the information to the interested parties. Going by the various definitions above, human resource accounting in simple term is accounting for the value of people in organization to enhance information for decision making by the users of financial information.”

The initial impetus for the development of HRA came from a variety of sources, including; the accounting theory of human capital, organizational psychologists concern for leadership effectiveness, and a concern for human asset as components of corporate goodwill (Ijeoma & Aronu, 2013; Jain, 2017; Ibanichua & Oko, 20190. Narayan (2019), believes that human resource is the most vital part of any organizational as it makes sure there exist a symbiosis between financial and all other physical resources towards the achievement of organizational objectives and goals. Conveniently, financial assets are accounted in the books of accounts as par the general principals of accounting, but does not account for the human asset (Ijeoma & Aronu, 2013). Therefore, it is an attempt to identify and report investment made in resources of an organization that are not presently accounted for under conventional accounting practices. Moreover, human resource accounting helps to measure the value of employees, which helps the management take vital decisions related to human resources in order to increase firm’s performance and value. It requires the measurement of the performances of an organization and the optimum use of the resources under the direct and indirect control. Hence, the overall valuation is important for decision-making in order to achieve the organizational objectives and improve firm’s performance. Parameswaran and Jothi (2005), HRA aim at depicting the human resources potential in monetary terms while forecasting the organizations’ financial performance and value. The traditional accounting procedures which have been practical since long have come to stay as acceptable norms. As a result whenever anew accounting system is developed, it is potted against the strength of the traditional system, which is considered to be comparatively objective and free from any bias. Bulen (2007) argues that employees interact together and transform other resources of the organization so as to add value and that what results from this transformation is reflected in the profit of the organization. He further posits that high priority and constant appraisal need to accrue to human resources as increased moral will result to better transformation and higher reflection of profit. Thus, human resource accounting can be used as a political tool to demonstrate mismanagement of human resources, this is a situation which could negatively impact on performance and consequently on profit.

Today’s high dependency on information and communication technology has indeed made the world a global village. This eventually led to the transformation of the world’s economy from industrial economy to past industrial economy. Flamholtz (1999), there is growing recognition
that over the past few decades, most of the world’s advanced economies have made a gradual yet fundamental transaction. They have shifted from industrial economies where plant and equipment’s were the core assets, to post-industrial economies where intellectual property, specifically human capital, is the core asset. There has been a fair amount of human resource costs research devoted to examining the effects of human resource costs and quoted performance, using data for countries with a long history of implementing initiatives designed to improve human resource costs, but overall there is no consensus judgment that human resource costs disclosure improve quoted performance; selected examples include; Akhisar., Tunay and Tunay (2015), Balaji and Balaji (2017), Ighobor (2017), Gerpott (2018), Harelinanina (2018), Jumba and Wepukhulu (2019), Ogutu and Fatoki (2019) Rabiu., Ladan, Usman and Garba (2019), Thankgod., Alhassan and James (2019) Nwaibu (2020), in reviewing these empirical studies, Xena and Rahadi (2019) suggested that there is no significant relationship between human resource costs and quoted performance. As to strength this view Bush (2019) from a sample of 211 USA firms, found no significant relationship between e-payment adoption and return on equity, noting that the relationship is spurious. Balachendher (2001) based on a sample of 48 firms 9 East Asian countries provide evidence to suggest that the e-payment indicators has a decided and negative influence on quoted performance. Ighobor (2017), Mahbab (2018) find no supporting evidence regarding the positive relationship between e-payment characteristics and quoted performance. In sharp contrast to the findings, Le., Vu., Due and Train (2018). Finds evidence of a positive of a positive relationship between e-payment service and quoted performance. Further empirical evidence of strong positive relationship between e-payment and quoted performance was offered by Mustapha (2018), Muthiaja and Chipeta (2018), Nithin., Jijin and Bazlag (2018), Njeru and Omagwa (2018) for firms in the USA and other industrialized economies.

The aim of this paper is to enrich the empirical literature by testing hypotheses concerning the relationship between Human Resource Accounting Costs Disclosure dimensions and return on equity in an emerging economy, Nigeria. We focus our analysis on the Nigerian experience due to research on the relationship between Human Resource Accounting Costs Disclosure and quoted performance has focused, almost exclusively on the USA and OECD country due, primarily, to the paucity of data for developing and emerging markets. By analyzing the human resource accounting costs disclosure -quoted performance relationship, the econometric findings of this study and be relate to the prevailing institutional structure, and therefore help to informed academic and policy debate on human resource accounting costs disclosure, as well as to enlighten international investors who would expect the human resource accounting cost disclosure of Nigerian upstream oil & gas to be broadly compatible with international standards. The reminder of the paper is organized as follows after the introduction. The next section briefly surveys the literature pertaining to human resource accounting costs disclosure and quoted performance and specifies the hypotheses of the study. Section 3 describes the research procedure used to conduct the empirical analysis. Section 4 presents the main results and discussion of the empirical investigation. Section 5 concluding remark, recommendations, limitation and suggestion for further studies.

Review of related literature and Hypotheses Development

Expense Theory

This theory focuses on attaching money estimates to the behavioural outcomes produced by working in an organisation. Criteria such as absenteeism, turnover, and job performance are measured using traditional organisational tools, and then costs are estimated for each criterion. For example, in costing labour turnover, Naira figures are attached to separation costs, replacement costs, and training costs. This method is philosophical in its development (Lim, Chan & Dallimore, 2010), but uses too many variables that are too qualitative to be estimated
in figures. Studies undertaken in the field of HRACD, which focus on quality or value relevance of financial reporting, are rather few. Martin-de-Castro, et al (2011) conducted a study on the origin and nature of human capital view of firms. Their study centred on the firm’s reported value and how human capital could change such value. Though their study established that human capital could transform a firm’s value, no evidence was provided relative to the degree of such transformation. Their study is also limited to the extent that no measurement attempt of the value of human capital was made and no specific measurement theory was used in their study.

Hidalgo Garcia-Meca, and Mertinez (2010) studied the relationship between corporate governance and intellectual capital disclosure. Intellectual capital was taken as synonymous to human resource value. Their study established a relatively strong positive relationship between corporate governance and the disclosure of human resource value in the financial statements. They concluded that when human resource value is reported, the quality of corporate governance of the reporting entity will be increased. The limitation of this research is that it failed to measure the value of the human resource and use the resulting value in making arriving at the conclusion. Peris-Ortiz (2009) used the expense theory in designing an analytical model for human resource management. Though his research was not captioned as HRACD, the model 76 developed by the researcher was proven and concluded to have a significant impact on human resource management within an organisation. The application of the model from the study was also concluded to have a capability of transforming organisations and enhance their competitive advantage. Verma and Dewe (2004) conducted a study on the measurement of human resource value. His study raised many questions that must be answered so that a realistic value of human resource could be obtained. The study concentrated only on the measurement process and procedure without linking it up to either the quality of financial reporting or the value of firms. However, the study shaped the thinking of accountants over HRACD.

The model developed in this research draw substantially from the cost and expense theories for the purpose of producing a more comprehensive HR model that takes care of majority of the weaknesses identified with the existing models. However, some elements of the present value theory are used in the model development. The section that follows presents the detailed stages in the modelling process and the procedures followed accordingly.

There is satisfactory number of theoretical framework in the area of assessing the quality of financial reporting. These frameworks as available in existing literature revealed the use of various measurement methods. The methods most widely used to assess financial reporting quality are accrual models, value relevance models, research focusing on specific elements in the annual report, and methods operationalising the qualitative characteristics. Accrual and value relevance models focus on the measurement of earnings quality. Accrual models are used to measure the extent of earnings management under current rules and legislation.

In the words of Healy and Wahlen (1999) and Dechow et al. (1995), these models assume that managers use discretionary accruals, i.e. accruals over which the manager can exert some control, to manage earnings. Earnings management is assumed to negatively influence the quality of financial reporting by reducing its decision usefulness (Stainbank, 2008; Brown, 1999). The principal advantage of using discretionary accruals to measure earnings management is that it can be calculated based on the information in the annual report. Additionally, when using regression models it is possible to examine the effect of company characteristics on the extent of earnings management (Healy & Wahlen, 1999; Dechow et al., 1995). Moreover, this type of research is replicable. When using accrual models, however, the
main difficulty is how to distinguish between discretionary and non-discretionary accruals (Healy & Wahlen, 1999). Moreover, it is only an indirect proxy of earnings quality, excluding non-financial information. Therefore, conclusions about the quality of financial reporting information based on accrual models do not provide direct and comprehensive evidence concerning the quality of financial reporting information and its dimensions of decision usefulness (Healy & Wahlen, 1999). Value relevance models focus on the associations between accounting figures and stock market reactions in the measurement of the quality of financial reporting information (Nichols & Wahlen, 2004; Barth et al., 2001; Choi et al., 1997). The stock price is assumed to represent the market value of the firm, while accounting figures represent firm value based on accounting procedures. According to Nichols and Wahlen (2004), when both 78 concepts are strongly correlated, it is assumed that earnings information provides relevant and reliable information. This method is also used to examine earnings persistence, predictive ability, and variability, as elements of earnings quality (Francis et al., 2004; Schipper & Vincent, 2003).

The third area of interest in the study of the quality of financial reporting focuses on assessment tools that measure the quality of specific elements of the annual report in depth and includes both financial and non-financial information. It evaluates the influence of presenting specific information in the annual report on the decisions made by the users. Studies using this framework include Hirst et al. (2004), who put emphasis on the use of fair value accounting and financial reporting quality. Also, Gearemynck and Willekens (2003) examine the relationship between the auditor’s report and decision usefulness of financial reporting information; while Beretta and Bozzolan (2004) focus on the quality of internal control and risk disclosure information. Cohen et al. (2004) highlights the relationship between corporate governance mechanisms and financial reporting quality. However, research that focuses on a specific element in the annual report has a partial focus, and thus does not provide a comprehensive overview of total financial reporting quality. Methods that operationalised the qualitative characteristics aim to assess the quality of different dimensions of information simultaneously to determine the decision usefulness of financial reporting information. Jonas and Blanchet (2000), Lee et al. (2002) and McDaniel et al. (2002) developed questions referring to the separate qualitative characteristics in 79 order to assess information quality. Although their research indicates that qualitative characteristics can be made operational, their operationalisations are based on the current frameworks of International Financial Reporting Standards (IFRS). In addition, some of these operationalisations are not complete and focus solely on relevance and faithful representation (McDaniel et al., 2002). Although understandability, comparability, and timeliness are perceived to be less important than relevance and faithful representation, for a comprehensive assessment it remains important to include them in the analysis. In addition, the complete annual report has to be taken into account since financial reporting refers to both financial and non-financial information.

In conclusion, accrual models and value relevance literature only focus on information disclosed in financial statements to assess the financial reporting quality (Nichols & Wahlen, 2004; Leuz, 2003; Barth et al., 2001; Healy & Wahlen, 1999; Choi et al., 1997; Dechow et al., 1995). Research papers focusing on specific elements in the annual report include both financial and non-financial information, but are not able to assess financial reporting quality comprehensively (Beretta & Bozzolan, 2004; Cohen et al., 2004; Hirst et al., 2004; Gearemynck & Willekens, 2003). The model developed from this study is empirically tested in order to find its impact on the quality of financial reporting of quoted service companies in Nigeria. In the pursuit of this, value relevance theory is used via the application of Price Model as advocated by Edwards-Bell-Ohlson (1995). The EBO Model, as it is shortened, uses book values, earnings and 80 change in earnings to determine how they affect the share price.
**Conceptual framework**

Most social science researchers are surrounded by concepts, which are either applied based on their general interpretation or bases on the way they are used in the research. According to Eric (2009), concepts covered by any research should be adequately explained whether used based on their general meaning or operationalised to suit the research. Under this are, the concepts used in this study are diagrammatically explained so that the audience would comprehend their meaning and appreciate their usage. The concepts drawn here are divided into two headings. The first heading considered the human resource accounting cost disclosure while the second heading is dedicated to quoted performance contained in the financial reports of organization.

![Diagram](image_url)

**Figure 1: Operational conceptual framework of Human Resource Accounting Costs Disclosure and Quoted Performance of Upstream Oil and Gas Companies in Nigeria.**

**Human Resource Accounting Cost Disclosure (HRACD)**

Human resource (HR) is a term used to describe the individuals who comprise the workforce of an organisation, although it is also applied in labour economics to business sectors or even whole nations. Human resource is also the name of the function within an organisation charged with the overall responsibility for implementing strategies and policies relating to the management of individuals (i.e. the human resource). This function title is often abbreviated to the initials HRACD. Human resources is a relatively modern management term, coined as early as the 1960s - when humanity took a shift as human rights came to a brighter light during the Vietnam era (Nadler, 1984). The origins of the function arose in organisations that introduced 'welfare management' practices and also in those that adopted the principles of 'scientific management'. From these terms emerged a largely administrative management activity, coordinating a range of worker related processes and becoming known, in time as the 'personnel function'. Human resources progressively became the more usual name for this function, in the first instance in the United States as well as multinational or international corporations, reflecting the adoption of a more quantitative as well as strategic approach to workforce management, demanded by
corporate management to gain a competitive advantage, utilising limited skilled and highly skilled workers.

On the other hand, accounting is viewed as a child of production (Melville, 2009). Production can be either the creation of tangible goods or the provision of services to satisfy human wants. The major factors of production are the land, labour, capital and entrepreneur. While every organisation reports on and includes land, capital and entrepreneur in its financial statements, labour is not given much attention and hence, its expenditure only represents periodic cost made by the organisation. The labour or employees are the human assets or resources organisations have. HRACD considers human resource as equivalent to other assets in the organisation. They require investment over time to make them productive. Such investment relates to the hiring, training, and development costs, which are capitalised and amortised over an assumed probably productive life for the human resource, taking into account attrition and eventual deterioration (Young & Jung, 2003; Myers, 1976). The concept of HRACD has been defined in so many ways but the basic feature of the system remains the same in every definition.

The American Accounting Association (1973:23) defined HRACD as “the process of identifying, measuring and communicating information about human resource in order to facilitate effective management within an organisation”. This definition considers HRACD as the process involving recognition and the quantification of human resource for the purpose of assisting the effective management of an organisation. The definition is not specific as to what constitutes the human resource expenditures and how it is to be recognised. A more specific definition of HRACD is the one given by Flamholtz (1974), which refers HRACD as the process, which involves measuring the cost incurred by business firms and other organisations to recruit, select, hire, train and develop human asset. This gives a view as to what expenditure on the human resource should be recognised for valuation and reporting purposes. This definition, in other words, regards HRA as involving the measurement of economic value of people to organisations.

Whereas the above definition of HRACD centred on the cost incurred in improving and developing human resource, another definition considers the contributory aspect of human resource. Thus, Friedman and Lev (1974) as well as Lau and Lau (1978) view HRA as a method for systematically measuring both the asset value of labour and the amount of asset creation that can be attributed to personnel activities. This definition incorporates the economic benefit attributable to the human resource in addition to recognising their cost implication. HRACD is also seen as an important aspect of management information system. In this view, Gupta (1991) defines the concept as basically an information system that tells management what changes are occurring overtime to the human resource of the business. It involves accounting for investment in people and their replacement costs, and also the economic value of people in an organisation. This definition regards HRACD as an information system capable of assisting the management in effective decision-making relative to the hiring and retention of employees. Therefore, HRACD provides a comprehensive look at one method of using human resource cost and value information in the decision-making process.

According to Newman (1999), HRACD refers to the measurement of the abilities of all employees of a company, at every level – management, supervisory and ordinary employees – to produce value from their knowledge and the capabilities of their minds. This definition considers the current growth in the service industry where the knowledge and intellectual capabilities of employees are the key elements to success. As such, HRACD is seen as the wealth of the employees’ knowledge and intellectual capabilities added to the organisation thereby making it
to earn profit and to succeed. Jasrotia (2004), also views HRACD as a measurement and reporting of the cost and value of people as organisational resources. This definition rests on the premise that knowledge and intellectual capabilities of employees are becoming more and more important in corporate investment decision-making. This is due to the fact that service industries are now overtaking the manufacturing industries and in service delivery business, the knowledge and intellectual capabilities of employees matter more than any other tangible asset.

According to Kodwani and Tiwari (2007), HRACD is “an attempt to identify, quantify and report investment made in human resources of an organisation that are not presently accounted for under conventional accounting practice”. This definition centred on three key areas of human resource: identification of what constitute it, quantification of it in monetary terms, and reporting it in the financial reports of organisation. From the perspective of this definition, human resource is crude in nature, but needs refining in order to determine what constitute HRACD for accounting purposes. Accounting for human resource entails the capitalisation of investments and other expenditures on employees excluding salaries and wages. However, only investments that can improve the quality and productivity of employees should be capitalised (Jasrotia, 2004; Roslender, 2004; Lev, 2001). But Gates (2002) and Jasrotia (2004) opined that the extent of capitalising the investments on human resource should better be left with the reporting companies. Their argument showed that capitalisation of human resource expenditure is better when a voluntary operational environment is created.

Looking at the trend of definitions in the field of HRACD, as highlighted above, this study therefore considers the definition of HRACD by Flamholtz (1974) and Jasrotia (2004) as explaining the concept better. This is for the fact that HRA is a combination of cost and value, and does not consider all expenditure on human resource in the capitalisation process. In other words, the study views HRACD as the measurement process which recognizes cost and value of employees in the financial statements of an organisation, as an intangible asset, to the extent of those expenditure that bring benefit to the organisation for more than one accounting year, so that the true value of the organisation can be established thereby assisting the various users of the financial statements in making their respective decisions.

Why Do We Favour Human Resource Accounting Cost Disclosure?

From the point of advertisement for a particular post to the point of departure, organizations do commit some financial resources to the employee. Many reasons culminated into the spending nature of organizations on their human resources. Abubakar (2009) identifies that getting the best human brain, achieving the pre-determined objectives of the organization, Commanding Respect in the Eyes of Stakeholders, gaining Competitive Advantage, Becoming the Pace Setter and Market Leader are some of the reasons why organizations do invest a lot of financial resources on their human capital. However, Lau and Lau (1978); Steffy and Maurer (1988); Roslender and Fincham (2001); Leffingwell (2002) also revealed areas through which organizations invest money relative to their human resources. The identified areas are Advertisement, Recruitment and Selection, Familiarization and Training, Training and Development, Medical and Entertainment. HRACD is not useful to the management solitarily in achieving its economic goals. It could also be the source of important information for investment decision purposes. The inclusion of appropriate human resource information in published financial statements would, in all likelihood, make such statements for more meaningful in predicting future performance which is, of course, the principal concern of investors. Sveiby (1997) argued that organizations acquire Human Resources to generate future revenues, and therefore Human Resource should be considered when valuing a company by capitalizing instead of expensing them in the current period. According to him human capital, intellectual capital and structural capital concepts are similar to other assets. Human resources is largely seen as an integral part of the firm’s value – creating processes. As well as creating
and maintaining competitive advantage. In today’s dynamic business environment, firms invest heavily in human capital assets. The problem however, is that these investments are either immediately expensed in the financial statement or arbitrarily amortised and therefore are not fully reflected in the balance sheet.

Consequently, the book values of firms with significant amounts of human capital investments are unrelated to the market values. The chartered institute of management accountants noted that all drivers of performance and value should be provided to investors including the non-financial ones such as intangibles (Starovic & Marr, 2003). The financial Accounting Standard Board (FASB) addressed this issue by encouraging business to voluntarily disclose information regarding their intangibles and intellectual capital. Intellectual capital resources (including human capital) are increasingly important factors on the successful achievement of organizational objectives. For stakeholders to fully understand an organization and the effectiveness of its managers, it is therefore important that corporate reports adequately reflect all resources used and developed to further the organization’s achievement. Williams (2001) predicted that there exists a positive relationship between a firm’s level of performance and its level of intellectual disclosure. Contrary to the prediction, the researcher found a statistically significant inverse relationship between the level of a firm’s intellectual capital disclosure and its level of performance. Intellectual capital resources (including human capital) are increasingly important factors on the successful achievement of organizational objectives. For stakeholders to fully understand an organization and the effectiveness of its managers, it is therefore important that corporate reports adequately reflect all resources used and developed to further the organization’s achievement. Williams (2001) predicted that there exists a positive relationship between a firm’s level of performance and its level of intellectual disclosure. Contrary to the prediction, the researcher found a statistically significant inverse relationship between the level of a firm’s intellectual capital disclosure and its level of performance (Rahaman et al., 2013).

Return on Equity
Return on Equity (ROE) is a very useful criterion for identifying companies that have the potential to provide attractive returns over long periods of time (Jensen Investment Management, n.d.). ROE is a measure of how efficiently shareholder capital is being used to generate profit and is the most widely used metric to assess financial institutions’ profitability. Insurance companies commonly set ROE targets both at the institution and product level – and these targets are often a central element of executive remuneration. Investors also use ROE to assess the performance of financial institutions and regulators and academics commonly use it to calculate the cost to companies of raising capital requirements. ROE is determined by both the underlying profitability of a company’s assets and the extent to which these are leveraged. As a result, there is evidence that an entity have historically increased leverage to meet ROE targets and that declining ROE has been a trigger for increased risk-taking (Haldane 2011; Adrian and Shin 2014; Adrian, Friedman and Muir 2015).

Return on Equity effectively measures how much profit a company can generate on the equity capital investors have deployed in the business, and can be used over time to evaluate changes in a company’s financial situation. ROE is calculated as the company’s annual net income after taxes (excluding non-recurring items), divided by the total (or average) shareholder’s equity. Net Income is the amount of profit that a company has made after all expenses and taxes are deducted from revenues. Return on Equity indicates the amount of earnings generated by each naira of equity. It can be a valuable insight into a company’s operations. In general, the higher the ROE the better, as high ROE companies, all other things being equal, will produce more earnings and free cash flow that can be used to support a higher level of growth, keep the
company financially strong, and provide cash returns to shareholders. Shareholder equity is the value that the owners of the company have invested that has not been paid out in dividends. In general, investors would prefer a higher ROE to a lower one and a stable ROE to a volatile one, but it is also important to pay attention to the way a company’s business model, operations, and financial decisions can impact ROE. If a company’s ROE changes, the cause of this change must be examined in detail to determine the reason for the change. Examining ROE alone will not always answer the question. Consequently, we recognize that there can be disadvantages to relying on Return on Equity alone. ROE may be volatile due to the business’s normal sales cycles, or ROE may be lower or higher depending on the general profitability of the industry in which the company operates. A company may have an inflated ROE because of a very small value of book equity on its balance sheet, perhaps due to rapid growth or because the company has made large share repurchases. Likewise, the company may have taken on a large debt burden, increasing its leverage and potentially increasing ROE without increasing profitability or efficiency.

**Empirical Review**

Olayinka and Olayiwola (2017) investigated human resource costs and financial performance using empirical studies evidence from Nigeria using S1 listed manufacturing companies. Secondary data was collected from Central Bank statistical bulletin and Nigerian Stock Exchange. Data collected was analyzed using ordinary least square regression analysis with the aid of statistical package for social sciences version 13. Findings revealed that the measure of human resource costs exerts a positive and significant effect on corporate earnings, which therefore implies that the capitalization of human resource investment in the annual reports has the propensity to increase corporate earnings. Young, Sun and Jin (2019 investigated the effect of human resources development on operational and financial performance of manufacturing companies using 207 manufacturing companies at three time points over a five year period. Adopting different statistical analysis, the finding revealed that finial investment and managerial support for HRACD had direct effect on operational performance – an recommends that large quoted commercial banks should be mandated to include human resource costs of capital nature in their asset while those of revenue in nature should be expensed to enhance quality of information which would impact positively on the share price of the banks. Other match of the webometric studies analyzing the effect, influence, impact, relationship with their authors and year, research title, volume, number and pages are summarized in table 1 below of the investigation of human resource costs and Quoted performance of Insurance Companies in Nigeria.

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<td>Understanding the relation between financial reporting quality and auditing.</td>
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<td>Ghase Mpour, Yusof, (2014)</td>
<td>Quality of intellectual capital and human resource disclosure on the firm valuation.</td>
<td>Open Journal of Accounting, 3(5),59-70</td>
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<td>Obara, (2013)</td>
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<td>Accounting for intellectual capital: Rethinking its theoretical underpinning.</td>
<td>Measuring Business Excellence, 8(1), 38-45</td>
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**Research Question and Hypotheses Development**

In order to achieve the set objectives of this empirical study, efforts were made to find answers to the following research question (RQ).

RQ1: How does human resource accounting disclosure index relate quoted performance of insurance companies in Nigeria.

This research question produced four hypotheses formulated in a null form and tested in the process of arriving at a dependable solution to the stated research problem:

H<sub>01</sub>: Human resource accounting disclosure index does not relate to return on equity of quoted insurance companies in Nigeria.

H<sub>02</sub>: Number of staff accounting disclosure does not significantly relate to return on equity of quoted insurance companies in Nigeria.

H<sub>03</sub>: There is no significant relationship between increment in staff salary accounting disclosure and financial performance of selected quoted companies in Nigeria.
index and return on equity of quoted insurance companies in Nigeria.

H₀: There is no significant relationship between Training cost accounting disclosure index and return on equity of quoted insurance companies in Nigeria.

**Methodological Foundation**

This section identified the methodological foundation adopted in evaluating the significant relationship between human resource accounting disclosure and financial performance of quoted oil and gas companies in Nigeria. The research design applied is non-experimental causal research design.

**Chakraborthy Model (Aggregate Payment approach):** This model was suggested by Chakraborty in 1976. He has valued the human resources as aggregate and not on an individual basis. He suggested that managerial and non-experimental causal research design and based on data availability, out of 21 quoted oil and gas companies as available in the Nigerian Stock Exchange website and fact-book only 12 oil and gas companies were selected as the study sample and a census technique was adopted. Panel data were extracted financial reports and accounts of quoted insurance companies both on Nigerian Stock Exchange and their websites. We utilized the descriptive statistics for a clear understanding of the various relevant features of the variables, ordinary least square regression analysis, Augmented Dickey Fuller Unit Root Test, Multicollinearity Test, and Error Correction Model used in analyzing the panel data with the aid of E-view package version 10.

**Model Specification**

The functional relationship between the dependent and independent variable, the disturbance, co-efficient and intercepts for human resources accounting and financial performance for the purpose of the research are stated below:

\[ ROE_{it} = \beta_0 + \beta_1 \text{HRACD}_{it} + \beta_2 \text{TC}_{it} + \beta_3 \text{NOS}_{it} + \beta_4 \text{INSS}_{it} + \epsilon_{it} \]  

Expanding the functional form into mathematical model as thus:

\[ ROE_{it} = \lambda_{0it} + \lambda_1 \text{HRACD}_{it} + \lambda_2 \text{TC}_{it} + \lambda_3 \text{NOS}_{it} + \lambda_4 \text{INSS}_{it} \]

From the above functional and mathematical relationship, the econometric model is specified as thus:

\[ ROE_{it} = \beta_0 + \beta_1 \text{HRACD}_{it} + \beta_2 \text{TC}_{it} + \beta_3 \text{NOS}_{it} + \beta_4 \text{INSS}_{it} + \epsilon_{it} \]  

Where: \( ROE_{it} = \) Return on assets for annual time series of the pooled data \( \beta_{0it} = \) Intercepts for annual time series of the pooled data \( \beta_{1it} = \) Coefficients slope for annual time series of the pooled data \( \lambda_{0it} = \) Error term for annual time series of the pooled data

**Apriori Expectation:**

The apriori expectation of human resource accounting cost disclosure are expected to be greater, positive or negative to quoted performance of insurance companies. In summary, the apriori expectation express as thus:

\( \beta_1 > 0, \beta_2 < 0, \lambda_3 > 0 < \lambda_4 > 0 \), respectively

**Empirical Results and Discussion**

**Table 2: Descriptive statistics for all the variables**

The Descriptive statistics which is the summary statistics of both the independent and dependent variables are captured in Table 1. The purpose of the descriptive summary is to enhance understanding of the unique characteristics of the individual variables in the nonlinear regression model. The descriptive statistics captured in Table 1 are the mean, median, standard
deviation, skewness, kurtosis and Jarque-Bera, they help to shed light on the data’s distribution over the sample period.

Table 2: Descriptive Statistics for all the variables

<table>
<thead>
<tr>
<th>Statistics</th>
<th>HRAD</th>
<th>NOS</th>
<th>TC</th>
<th>INSS</th>
<th>ROE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>27.27778</td>
<td>201.7222</td>
<td>3956308.28</td>
<td>28455864.36</td>
<td>-0.039070</td>
</tr>
<tr>
<td>Median</td>
<td>22.00000</td>
<td>193.0000</td>
<td>41731.50</td>
<td>743662.5</td>
<td>0.071160</td>
</tr>
<tr>
<td>Maximum</td>
<td>50.00000</td>
<td>418.0000</td>
<td>57404566.0</td>
<td>4.30E+08</td>
<td>0.402206</td>
</tr>
<tr>
<td>Minimum</td>
<td>17.00000</td>
<td>0.00000</td>
<td>0.000000</td>
<td>227752.0</td>
<td>-7.759396</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>9.002695</td>
<td>100.4907</td>
<td>13194431.6</td>
<td>94818600.0</td>
<td>0.933248</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.942007</td>
<td>0.400395</td>
<td>3.1415130</td>
<td>3.249489</td>
<td>-8.027989</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.862024</td>
<td>2.357233</td>
<td>11.164690</td>
<td>3.249489</td>
<td>66.89681</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>10.70565</td>
<td>3.163243</td>
<td>318.41600</td>
<td>373.63760</td>
<td>13021.79</td>
</tr>
<tr>
<td>Probability</td>
<td>0.004735</td>
<td>0.205641</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
</tr>
<tr>
<td>Observations</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
</tr>
</tbody>
</table>

Before engaging in any regression analysis, it is essential to have a feel of our dataset. We want to first of all understand what our sample convey.

The descriptive statistics above provides information on:

Measure of central tendency – mean and median; measures of dispersion – range (the difference between maximum and minimum values) and standard deviation; measures of normality – kurtosis (measures the degree of sharpness) and skewness (measures the degree of symmetry).

Measures of variability

The most important study variables is and ROE, between the two variables ROE had a larger standard deviation. ROE showed a standard deviation of 0.93. The standard deviation shows how far observations are from the sample average. The range is simply the difference between the highest and the lowest value. The highest (or maximum) value for ROE is 0.40 and the lowest (or minimum) is -7.76 which means the range for ROE is 8.16. Because the range is large it implies that the values are highly spread out indicating high variability in ROE series. Because the range is small it suggests that the values are not highly spread out. Overall, the range values indicates that ROE had a larger range, hence, ROE varied more.

Measures of normality

Kurtosis refers to the relative length of the tails and the degree of concentration in the centre. In other words, it measures the peakness or flatness of the distribution of the series. A kurtosis value of zero indicates a bell-shaped distribution. A negative value indicates a distribution that is flatter than a bell-shaped distribution. A positive value indicates a distribution with a sharper peak than a bell-shaped distribution. A normal bell-shaped population is called mesokurtic and serves as a benchmark. A mesokurtic distribution is a normal distribution with a kurtosis of 3, while a leptokurtic distribution is a positive kurtosis (peaked-curve) with higher values than the mean. While a population that is flatter than a normal (i.e., has thinner tails) platykurtic distribution is a negative kurtosis (flatted-curve), with lower values than the sample mean. All the variables exhibited positive kurtosis, meaning that the distribution of the returns had a
sharper peak than a bell-shaped distribution.

Skewness measures the degree of asymmetry of the series. Normal skewness has a 0 skew; distribution is symmetric around its mean. Positive skewness means a long right tail with higher values, while negative skewness means a long tail with lower values than the sample mean. The ROE showed a negative skewness. One of the indications that ROE is negatively skewed is because the mean of -0.04 is less than the median of 0.07. This indicates that the dependent variables are not normally distributed.

**Note: Normal skewness = 0; Mesokurtic: kurtosis of 3.**

**HRACD:** mirrors normal skewness and platykurtic (because 2.862024 < 3). Platykurtic implies that this series will have lower values below its sample mean, it is going to have a lot of values that are lower than 27.28. So it is going to have a flat surface.

**TC:** has a long-right tail (positive skewness) and leptokurtic (because 11.16469 > 3).

**ROE:** has a long-right tail (positive skewness) and leptokurtic (because 11.16469 > 3).

**Jarque-Bera:** the test statistic measures the difference of the skewness and kurtosis of the series with those from the normal distribution.

**Probability:** is the probability that a Jarque-Bera statistic exceeds (in absolute value) the observed value under the null hypothesis – a small probability value leads to the rejection of the null hypothesis of a normal distribution.

### Multicollinearity Test

**Table 3: Inter-Correlation test**

<table>
<thead>
<tr>
<th></th>
<th>HRACD</th>
<th>TC</th>
<th>NOS</th>
<th>INSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRACD</td>
<td>1.000000</td>
<td>-0.003156</td>
<td>0.181519</td>
<td>0.007478</td>
</tr>
<tr>
<td>TC</td>
<td>-0.003156</td>
<td>1.000000</td>
<td>0.005418</td>
<td>0.103224</td>
</tr>
<tr>
<td>NOS</td>
<td>-0.181519</td>
<td>0.005418</td>
<td>1.000000</td>
<td>0.082517</td>
</tr>
<tr>
<td>INSS</td>
<td>0.007478</td>
<td>0.103224</td>
<td>0.082517</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

The Pearson correlation coefficient between Human resources accounting disclosure (HRADI) and Training cost (TC), Number of staff (NOS), and Increment in staff salary (INSS) is -0.003156, -0.181519, and 0.007478 respectively, indicating a very weak negative correlation between HRADI and TC, HRAD and NOS, and a very weak positive correlation for HRACD with INSS. The correlation coefficient between TC and NOS, and INSS is 0.005418, and 0.103224 respectively, which shows a very weak positive correlation between TC and NOS, and INSS. The correlation coefficient between NOS and INSS is 0.082517 indicating a very weak positive correlation between NOS and INSS. Overall, these results show clearly that the no multicollinearity condition for regression analysis have been met.

### Test for Panel Unit Root/Stationarity

**Table 4: Panel unit root test results summary**

<table>
<thead>
<tr>
<th>Unit Root Results</th>
<th>Levin, Lin &amp; Chu t*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on equity (ROE)</td>
<td>0.0003**</td>
</tr>
<tr>
<td>Human resource accounting disclosure index (HRDI)</td>
<td>0.0000**</td>
</tr>
<tr>
<td>Training cost (TC)</td>
<td>0.0040**</td>
</tr>
<tr>
<td>Number of staff (NOS)</td>
<td>0.0000**</td>
</tr>
<tr>
<td>Increment of staff salary (INSS)</td>
<td>0.0000**</td>
</tr>
</tbody>
</table>
From table 4 we can see that the unit root test results reveal that all the dependent and independent variables in the models in this study are stationary at level and does no further adjustment is required to make them stationary.

**Table 5: Estimated result of Model 1 using Random Effect**

Dependent Variable: ROE  
Method: Panel EGLS (Cross-section random effects)  
Date: 07/17/19  Time: 14:02  
Sample: 2012 2017  
Periods included: 6  
Cross-sections included: 12  
Total panel (balanced) observations: 72  
Swamy and Arora estimator of component variances

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.175814</td>
<td>0.001679</td>
<td>0.372742</td>
<td>0.7105</td>
</tr>
<tr>
<td>HRADI</td>
<td>0.017940</td>
<td>0.012708</td>
<td>7.411726</td>
<td>0.0427</td>
</tr>
<tr>
<td>TC</td>
<td>4.83E-09</td>
<td>0.01E-08</td>
<td>5.107223</td>
<td>0.0009</td>
</tr>
<tr>
<td>NOS</td>
<td>-0.001295</td>
<td>0.001173</td>
<td>-5.103953</td>
<td>0.0236</td>
</tr>
<tr>
<td>INSS</td>
<td>-3.56E-10</td>
<td>0.07E-09</td>
<td>-6.056793</td>
<td>0.0349</td>
</tr>
</tbody>
</table>

**Effects Specification**

<table>
<thead>
<tr>
<th></th>
<th>S.D.</th>
<th>Rho</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>0.000000</td>
<td>0.0000</td>
</tr>
<tr>
<td>Idiosyncratic random</td>
<td>0.947313</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

**Weighted Statistics**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Mean dependent var</th>
<th>-0.039072</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.057995</td>
<td>S.D. dependent var</td>
<td>0.933248</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.001756</td>
<td>Sum squared resid</td>
<td>58.25124</td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>0.932428</td>
<td>Durbin-Watson stat</td>
<td>2.558061</td>
</tr>
<tr>
<td>F-statistic</td>
<td>1.031226</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.397691</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Unweighted Statistics**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Mean dependent var</th>
<th>-0.039072</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.057995</td>
<td>S.D. dependent var</td>
<td>0.933248</td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>58.25124</td>
<td>Durbin-Watson stat</td>
<td>2.558061</td>
</tr>
</tbody>
</table>

The result of our Hausman Test reveals that random effect model is more appropriate, this is suggested by the p-value of 0.6265 (see appendix 2). Drawing from this result, this study’s Hypothesis two, four, six and eight are tested using random effect model.

As stated earlier, having performed the random effect analysis, we proceed to test our hypotheses to enable us discuss findings.

**Hypotheses Testing**

**H\(_{01}\):** Human Resource Accounting Disclosure Index (HRADI) does not significantly relate to
Return on Equity (ROE) of quoted Insurance Companies in Nigeria. Table 4.2.7 also shows that human resource accounting disclosure has a significant positive effect on return on equity which is one of the proxies of corporate performance (coefficient = 0.017940, p-value = 0.0427). The positive coefficient of 0.017940 indicates that as human resource accounting disclosure increases return on equity increases by 0.017940. The p-value of 0.0427 establishes the significance of the effect of human resource accounting disclosure on return equity, because p-value less than the 0.05 level, we reject hypothesis two. This empirical finding is not conformity with Eyler (2016), Nwaiwu (2020) who indicate that human resource accounting disclosure index does not relate to return on equity of quoted insurance companies in Nigeria.

Ho2: The number of staff will not have significant effect on ROE of quoted Insurance Companies in Nigeria.

Table 4.2.7 reveals that number of staff has a significant negative effect on return on equity (coefficient = -0.001295, p-value = 0.0236). The negative coefficient of 0.001295 reveals that a unit increase in number of staff decreases return on equity by 0.001295, the p-value of 0.0236 establishes the significance of the effect of number of staff on return on equity, the p-value is less than the 0.05 level. Thus, we reject hypothesis six. The empirical finding lent credence to the standpoint of Raghau (2011), Ihendinihu et al (2016) who found that Number of staff accounting disclosure does not relate to return on equity of services quoted companies in Nigeria.

Ho3: Increment in staff salary will not have significant effect on Return on Equity (ROE) of quoted Insurance Companies in Nigeria.

Observe that table 4.2.7 reveals that the increment in staff salary has a significant negative effect on return on equity (coefficient = -3.56, p-value = 0.0349). The negative coefficient of 3.56 indicates that for every unit increase in staff salary return on equity decreases by 3.56, the p-value of 0.0349 establishes the significance of the effect of increment in staff salary on return on equity; the p-value is less than the 0.05 level. Thus, we reject hypothesis eight. The empirical finding of Agwu (2018), Hostomo and Aras (2018) Nwaiwu (2020) clearly demonstrated agreement with the results of the present that increment in staff salary accounting disclosure index relate to return on equity of quoted insurance companies in Nigeria.

Ho4: The training cost of staff does not have significant effect on ROE of quoted Insurance Companies in Nigeria.

Observe that table 4.2.7 reveals that training cost of staff has a significant positive effect on return on equity (coefficient = 4.83, p-value = 0.0009). The positive coefficient of 4.83 indicates that as training cost of staff increases by one unit return on equity increases by 4.83, the p-value of 0.0009 validates the significance of the effect of training cost of staff on return on equity; the p-value is less than the 0.05 level. Thus, we reject hypothesis four. This empirical results justified the findings of Enorunwa., Ezuern and Nwaiwu (2019) examined the relationship between training cost accounting disclosure index and return on equity in Indonesia.

Conclusion and Recommendations

Just as the field human resource accounting disclosure and financial performance of quoted oil and gas companies has grown globally, significant interesting human resource accounting disclosure has expanded and crossed over into fields others than accounting including economics, organizational management and organizational culture and inspired related research. This empirical study therefore, concluded that the exist a significant positive relationship between human resource accounting cost disclosure and quoted performance of oil
and gas companies in Nigeria. Standard that will guide quoted service companies in the valuation and reporting of human resource. This standard should provide details on the minimum standard of reporting human resource value in the financial statements of service companies especially in the statement of financial position and notes to the accounts such minimum requirement should ensure that the various stakeholders access all the relevant and appropriate information on human resource qualities, capabilities and intellectual abilities to boost their decision making needs.

Limitation and Suggestion for further studies
It is the nature of any research effort not to be devoid of some obstacles and difficulties. However, what makes a good research is how well those obstacles and difficulties are properly managed during the course of the research. The only obstacle encountered in this research, which is worthy of mention, was on the issue of sub-variables of human resource accounting cost disclosure index and quoted performance of insurance companies in Nigeria, spanning from 2008-2017. The idea behind this limitation is to ensure that industry specifics were avoided in the testing process in order to find the relevance of the model.

References
Appah, E. & Appah, K.Z. (2010). Fraud and development of sound financial institutions in...


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