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Human Resource Valuation and Financial Performance of Nigerian Listed Companies

Jesuwunmi Caleb. A.D., Nzewi, U.C., Obelogu, M. I. & Udodi, C. C.
Department of Accountancy, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria
calebian22002@gmail.com

This study empirically investigates the contribution of human resources valuation proxy variables, that is, human resource cost and human capital efficiency on financial performance of Nigeria listed companies. The study adopted ex-post facto research design method. The population of the study consists of 186 listed companies on Nigerian Stock Exchange, secondary data that spanned from 2011 to 2016, were obtained from the audited annual accounts and reports of 24 selected listed companies (i.e. 6 time series and 24 cross-sectional data making 144 pooled observational balanced panel data) and analysed using multiple linear regression model (OLS) and Karl Pearson Product Moment Correlation Co-efficient (PPMC) via Statistical Package for Social Science Students (SPSS) version-23. We discovered that human resources cost (HRC) and human capital efficiency are significant predictors of Nigerian listed companies' return on investment, gross profit margin, asset turnover and return on asset but insignificant predictors of net profit margin. The implication of the model prediction is that captains of industries or managers need to ascertain the level of human resources cost/ asset that will yield maximum human capital efficiency and effective utilisation of employee. We therefore recommend amongst others that Nigerian listed companies should minimize their human resource cost or human investment in order to create optimality by increase their human capital efficiency and financial performance. Also there should be accounting standard for human resource accounting measurement as it would ensure uniformity in disclosures and a reliable estimation and comparison of human resource value among Nigerian listed companies.

Key words: human resource cost, human capital efficiency, financial performance, Nigeria.

* Corresponding author

E-mail address: calebian22002@gmail.com (C. A. Jesuwunmi)

INTRODUCTION

Human resources can be referred to as human assets or capital; these refer to the set of individuals, who make up the workforce of an organization or a business entity (Edom, Inah, Adanma, & Eyisi, 2015; Syed, 2009). Human resource accounting (HRA) as the process of identifying and measuring data about human assets (resources) and communicating this information to interested parties. This will enable organizations make relevant decisions regarding internal and external matters. Like other physical assets, human assets also have the ability to create expenditure and income. Therefore, it is necessary to value human forces just as other assets, that is, to consider the costs and benefits of human resources (American Accounting Association, 2014).

Economists refer to human resource as human capital; this being seen as a production factor, and they explore different ways of measuring its investment in education, health, and other areas. These resources are as implicit knowledge in employees and are one of the operational factors on an organization performance (Hajkarimi, 2009). Perhaps human resources or assets is the most essential sources of an organization processes, because it is employees' or workers' ideas that influence financial and physical resources of a company to create financial return, that is, return on investment, return on equity, net profit margin, gross profit margin, etc. (Charles, 2001). Ishikawa

and Ryan (2002) suggest that it is the stock of human capital that predominantly determines the earnings of firms and individuals. As noted by Graham, former president of the institute of chartered Accountants for England and Wales (ICAEW) stated on June 2000, firms that ignore human capital will go the way of dinosaurs (Beattie & Smith 2010).

Universally, companies or organisations need to develop a competitive advantage, it is important that firms truly leverage on the employees as a competitive tool. A scheme for enhancing organisational profitability (that is, return on investment, return on equity, net profit margin etc.) to drive greater net present value for the firms has become an important focus. Organisations pursue to develop their workforce through comprehensive human capital development activities not only to optimise organisational objectives but most important is for a long term survival and sustainability (Marimuthu, Arokiasamy, & Ismail, 2009).

Organizational success greatly hinge on the aptitude of the human assets to resourcefully optimize other assets such as land, equipment and money. Therefore human resources have come to be regarded as the paramount assets at the disposal of organisations. Enofe, Sunday and Ovie, (2015) acknowledged that "our greatest assets are our people" is declared in most organisations' annual accounts and reports at all stages and areas of organisations, if human resources are adequately remunerated and recognized at all stages of firms will lead to human capital efficiency; which is required with machine efficiency for enhanced performance. Valuation of this resource is necessary and information about valuation must be given to all stakeholders of an organization in the financial statement.

The paradigm shift in global economies from manufacturing to service based economies prompted a transformed interest in human resource accounting valuation that came in several forms during the 1980s and 1990s. Now the survival, stability and growth of organizations is to be based more on human resources (assets) and their proficiencies as compared to preceding periods that relied more on physical assets (resources) (Flamholtz, 1999). It has been observed that until recently, the "value of an enterprise as measured within traditional statement of financial position, (for example buildings, production plant, fixtures and fittings, vehicles), was viewed as a sufficient reflection of the enterprise's assets. Traditional financial statements of companies do not reflect true disclosure of human asset. In few instance, traditional intangible assets (for example research and development, goodwill and other internally developed assets) are recognised in annual account of companies, but these assets are defined narrowly (Gallego & Rodriguez 2005).

Studies have shown that human assets are the leading indicator for firms' value creation and there is no standard proposed by any accounting standard committee for this regard. On the other hand, by this process a firm has the chance of manipulating the financial statement. The increasing gap observed between market value and book value of many companies has drawn attention towards investigating the value missing from financial statements. However, with the growing emergence of the knowledge economy, this traditional valuation has been called into question due to the recognition that human asset is an increasingly important part of an enterprise's total value observed that the succession of the human intellect over machines and equipment in the contribution to industrial value makes a financial statement that relegates human asset expenditure to expenses inadequate if not obsolete (see, Chen & Lin 2003; Kaplan & Norton, 2004; Kieso & Weygandt; Westphalen & Nychas, 1998).

The concept of human resource accounting (HRA) is in the early stage of development in developing countries and conventional accounting technique are use in reporting the cost incurred on human asset as an expense in their statement of comprehensive income, while some of the services rendered by the human asset or resource span more than one accounting period are against the current revenue (Ifurueze, Odesa & Ifurueze, 2015; Remya, 2015). The total cost incurred on human resource are treated as expense in the statement of comprehensive income, while the benefit of some of the cost element (acquisition, development, training) last more than one year. Charging the investment in human asset as expenses in statement of comprehensive income is traceable to the inability of organization to separate the expense element (salaries, wages, commission, bonus, maintenance, allowances) from the capital expenditure element (acquisition, recruitment, training, development and retraining).

The success of any organization depends on the quality of its human assets or resources whether it belongs to manufacturing, service or a retail outlet. The development of employees or workers is work

activity that can make a tremendous contribution to organisational efficiency, financial performance and growth of listed companies (see, Adeniyi, 1995; Oribabor, 2000; Sharma, 2012) the total worth of an organization depends mainly on the skills of its employees and the services they render.

Evaluating organizational performance may be inconclusive without consideration of the value of human asset and efficiency. Divergent scholars have conducted studies on the connection between various human resource cost valuation technique and organisational performance (Afiouni, 2007; Johansson, 2007). A few number of studies have focused on the valuation or measurement of human resource accounting (Carrell, 2007; Catasus & Grojer, 2006), others addressed the issues of regulations, standards or reporting of human resource accounting. Nevertheless numerous studies have emphasized on the significance of valuing the cost of human asset in corporate settings, with a focus on varying areas of performance (that is, non-financial performance), conversely studies are inconclusive on the significance in augmenting organisational profitability. However some scholars reported positive effect or relationship, others indicate a negative effect or relationship and yet others report no effect at all (see, Bassey & Tarpang, 2012; Nabil, 1972; Okpala & Chidi, 2010; Rehman, Rehman, Rehuman & Zaliad, 2011; Sharma, 2012).

Based on the divergent views and inconclusive findings of scholars and the previous studies reviewed focused on human resource cost measurement and disclosures, none of the studies considered human resources cost efficiency or optimization, this form the rationale to investigate the contributions of human resource cost and efficiency towards the Nigerian listed firms' financial performance. The general purpose of the study is to determine the contribution of Human resource valuation to Nigerian listed companies' financial performance. In order to achieve earlier stated broad objectives the following research questions and null hypotheses were raised:

To what extent is the joint impact of human resource valuation surrogates (HRV) on return on investment (ROI), gross profit margin (GPM), Asset Turnover (ATO), return on equity (ROE) and net profit margin (NPM) of Nigeria listed firms?

What is the magnitude and directions of associations between human resources cost (HRC) and return on investment (ROI) of Nigeria listed firms?

What is the correlation between human resource efficiency (HCE) and return on equity (ROE) of Nigeria listed firms?

The following null hypotheses (H0) will be tested at 5% level of significance (α):

The combined prediction of human resource valuation surrogates on return on investment (ROI), gross profit margin (GPM), Asset Turnover (ATO), return on equity (ROE) and net profit margin of Nigeria listed firms is not significant.

The magnitude and directions of associations between human resources cost (HRC) and return on investment (ROI) of Nigeria listed firms is not significant.

The correlation between human resource efficiency (HCE) and return on equity (ROE) of Nigeria listed firms is not significant.

The rest of the paper had been divided into literature review, methodology, data analysis, conclusion and recommendation respectively.

2. Review of Related Literature

2.1 Conceptual Review

2.1.1 Human Resource Valuation

There is need to consider the definition of human resources accounting advanced by Flamholtz before looking at the concept of Human resource valuation. Flamholtz (1985) gave more specific definition of HRA, which refers HRA as the process of measuring the cost incurred by business firms and other organizations to recruit, select, hire, train and develop human asset. Friedman and Lev (1974); Lau and Lau (1978) consider 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. Newman (1999) defined, HRA as 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. Jasrotia (2004), in her definition, also views HRA as a measurement and reporting of the cost and value of people as organizational resources. In his view, Gupta (1991) defines the HRA as basically an information system that tells management what changes are occurring overtime to the human resources of the business. It involves accounting for investment in people and their replacement costs, and also the economic

value of people in an organization. These definitions give a view as to what expenditure on the human resources should be recognized for valuation and reporting purposes. In other words, Flamholtz (1985) regards HRA as involving the measurement of economic value of people to organizations. Therefore, HRA provides a comprehensive look at one method of using human resource cost and value information in the decision-making process and considering the contribution aspect of human resources in incorporates the economic benefit attributable from the human resources in addition to recognizing their cost implication.

Human resource valuation in any organizations is very much important from accounting point of view. Valuation of human resources, recording the valuation in accounts and fair disclosure of such information in financial statements are the demand of the stakeholders in the context of enhancing managerial performance and employees' productivity. Investment in developing human resources is not revenue expenditure. Its impact on developing the capability of employees provides benefits for a long period. There is a genuine need for reliable and complete information that can be used in improving and valuing human assets. This valuation of human asset involved the determination of investment in human resources and the benefits received from human asset inform of human capital or employees' efficiency (that is, valued added or created). Value-added or created in business, is the difference between the sale price and the production cost of a product is the unit profit. In economics, the sum of unit profit, unit depreciation cost, and unit labor cost is the unit value added. Summing value added per unit over all units sold is total value added. Total value added is equivalent to revenue less intermediate consumption. In national accounts used in macroeconomics, it refers to the contribution of the factors of production, i.e., capital (e.g., land and capital goods) and labor, to raising the value of a product and corresponds to the incomes received by the owners of these factors. The national value added is shared between capital and labor (as the factors of production), and this sharing gives rise to issues of distribution (Deardorff, 1994; Samuelson, & William, 2009).

Human resource efficiency is an integral part of business, as it tells how efficient system is, over time. It is also a key performance indicator (KPI) which defines how much of the employee or human resource's time is spent working productively. There are numerous factors that can influence the efficiency of employees. Such as; Training and Skill – an employee or human resource with good technical knowledge and experience will be more efficient compared to an employee or human resource with no experience. Wages and Benefits –If an employee has competitive wages, bonuses and benefits, it is more likely that they will be motivated to work harder, therefore increasing their efficiency. Working Hours – Efficiency will be higher if working hours are reasonable. Asking employee to work longer hours for no extra pay is likely to cause a decrease in efficiency due to a lack of motivation and tiredness. Environment – A pleasant and stimulating working environment makes for a more efficient employee or human resource. Efficiency in the workplace is the time it takes to do something. Efficient employees and managers complete tasks in the least amount of time possible with the least amount of resources possible by utilizing certain time-saving strategies. Inefficient employees and managers take the long road. For example, suppose a manager is attempting to communicate more efficiently. She can accomplish her goal by using email rather than sending letters to each employee. Efficiency and effectiveness are mutually exclusive. Well managed companies that address important business issues through the implementation of human resource strategies often seek to measure performance of the human resource function in terms of both effectiveness and efficiency. Effectiveness relates the results of activities to the achievement of objectives (i.e., "are we doing the right things?"). Efficiency relates the yield of outputs to the energy, time, or resources applied as inputs (i.e., "are we doing things right?") (Drucker, 1973). Efficiency increases productivity and saves both time and money.

Value-added or created can be referred to as productivity. Productivity is simply the amount of units of a product or service that an employee handles in a defined time frame. An employee who makes widgets might make 20 widgets per hour, or an employee at a coffee shop might service 15 customers per hour. Simple productivity is neither good nor bad, and in service industries, it might vary according to factors beyond the employee's control, like the number of customers who present for service. Productivity is the basic measure of employee work output which can also be represented with total revenue or income. Employee productivity (sometimes referred to as

workforce productivity) is an assessment of the efficiency of a worker or group of workers.

Productivity may be evaluated in terms of the output of an employee in a specific period of time. Typically, the productivity of a given worker will be assessed relative to an average for employees doing similar work. Because much of the success of any organization relies upon the productivity of its workforce, employee productivity is an important consideration for businesses efficiency. For many businesses, including most small businesses, the most significant cost is human resource cost. Salaries and wages comprise the major line-item expense for most retail and small-scale manufacturing companies, but human resource also tends to be responsive to productivity improvements. To reduce human resource costs, entrepreneurs should consider measuring employee efficiency and setting aggressive performance targets to get the most report or bang for their employee buck.

Efficiency in business relates to how much of a product or service is produced in a given timeframe while effectiveness is a measurement of quality. Efficiency can be derived as comparing the cost incurred in production against the revenue realised. Companies often talk about employee effectiveness and efficiency when brainstorming ways to improve business. While they sound similar, effectiveness means something entirely different than efficiency. An effective employee produces at a high level, while an efficient employee produces quickly and intelligently. By combining effectiveness and efficiency, a company produces better products faster and with fewer resources. Effectiveness is the level of results from the actions of employees and managers. Employees and managers who demonstrate effectiveness in the workplace help produce high-quality results. Companies measure effectiveness often by conducting performance reviews. The effectiveness of a workforce has an enormous impact on the quality of a company's product or service, which often dictates a company's total revenue (income), reputation and customer satisfaction.

In economics we find the major factors of production are the land, labour, capital and entrepreneur. Every organization reports on and includes land and capital in its financial statements, but labour and entrepreneur are not given much attention, they are the two factors of production which they only represent a charge against the profit made by the organization (Abubakar, 2006; Glautier, 1974). Human Resource Accounting (HRA) is the process of identifying, recording and reporting the Investments made in the Human Resources of an Organization that are presently not accounted for in the conventional accounting practices. In other words, it is an extension of the existing "Expense recognition principle" or "Matching Principles" that requires revenue to be matched with expenses incurred to earn that amount of revenue and of organizing data to communicate relevant information. This effort to quantify the value of Human Resources helps the management to cope up with the changes in its quantum and quality so that equilibrium can be achieved in between the required resources and the benefit derived from such resources.

Human capital is the generic term for the competences, skills, trainings and motivation of the employees or is the skills, knowledge, and experience possessed by an individual or group of individuals, viewed in terms of their value or cost to an organization or country. The human capital of the organisation comprises of all the qualities and professional skills the worker brings into the organisation. HC is owned by the worker and leaves along with him whenever he leaves the organisation (Anuonye, 2015). Human asset or capital is one of the most important resources that can positively impact on a firm's profitability and efficiency. Capitalizing human resource costs is conceptually more valid than the expensing approach. The information concerning human assets is more relevant to a great variety of decisions made by external and internal users. Accounting for human asset constitutes an explicit recognition of the premise that people are valuable organizational resources and an integral part of a mix of resources (Islam, Kamruzzaman, & Redwanuzzaman, 2013). There are two concepts that human resources valuation can be split into human resource cost and human capital efficiency (employee/labour efficiency).

Cost of human resources represents sacrifice that will have to be incurred today to acquire and develop people in future. The cost of human resource otherwise called Historical cost of human resources is the investment in human resources which has both Revenue (expense) and Capital (asset) components. Cost valuation is the estimation of the worth of something. There are two broad classifications of human resource cost that is, acquisition cost and development cost.

Human resource acquisition cost (HRAC) refers to the costs incurred in acquiring the right man for the right job at the right time and in right quantity. This includes cost of hiring employees, cost of selecting employees, cost of interviewing employees, cost of recruiting employees, and cost of placement of employees. The entire cost is taken into consideration including those who are not selected.

Recruitment cost is the cost incurred to identify sources of human resources both from within and outside the organization. For example, cost of recruiting materials, administrative expenses, advertising costs, agency fees, recruiter's salary and travel and outstation costs.

Selection cost depends on several factors such as the type of personnel being recruited and the method of recruitment. The cost of selection depends on the position for which a person is being selected. The higher the position, the greater is the selection cost. It includes cost of application blanks, administrative cost of processing applications, conducting tests, interview, medical examination and the Salaries, materials and consulting fees of the selectors.

Placement cost, in deciding upon the placement, the individual's ability, attitude, interest, temperament and aspirations are taken into consideration with reference to the job requirements. The cost of placement can be collected for the purpose of human resource accounting.

Human resource development cost (HRDC) refers to the sacrifice that must be made to train a person either to provide the expected level of performance or to enrich the individual's skill. Training improves the productivity potential of both the individual and the organization. This includes formal training cost of employees, cost of re-training employees, cost of employees' seminars, and cost of orientation. The training cost includes the following:

Formal training cost refers to the cost incurred in conventional training for the orientation of an individual so that he can operate the work. The remuneration to the training staff and the fixed cost of the training schools are essentially Human Resource Investment items.

On the job training cost: Once the employee is placed on the job, he must be trained to do the job efficiently and effectively and in this regard the employee learns while he is on his job. In the process, the costs of mishandling the job, the payments to the employee more than what he actually contributes are on the job training cost. Thus it is an Investment in Human Resource.

Special training cost, to achieve the performance standards sometimes specific training programmes may be devised. Such training gets a distinct human resource to the organization. The costs of such training are called special training costs fall under the human resource investment of the organization.

Development programmes cost; employees may be allowed to participate in a variety of development programmes to enrich their faculties. These programmes may range from ordinary lectures to international conferences and seminars. The participants have an opportunity to interact with other executives on national and international level. Such association involves cost such as delegate fees, the travel cost, loss of output during the development programme etc. which are to be accounted for as a human resource investment.

Human capital/resource efficiency is the aggregate aptitudes or other assets of individuals that can be used to create economic values for the organisations or community. This is the value of all the workers in the organisation with all the attendant rewards attached to their utilisation (Verguwen & Alem 2005). These proficiencies are unique to the employees even though the company invests in the workers; they go away with them whenever they leave the firm (Roos & Roos 1997). Besides showing the firm sizes, High human capital reflects higher employee skill that would add more value compared to employees with lower salary and wages. Pablos (2003) and Bontis (2004) argued that a company will gain a competitive advantage if human asset is effectively harnessed in the organisation. The drivers of this human capital advantage (Pulic 2004) may be found in all employees as well as the organisations ability to create value under a market assessment. In other words, human capital is represented by the company's stock such as skilled employees, knowledge and management philosophy (Nielsen, Bukh, Mouritsen, Johanseu & Gormsen, 2006). Human capital efficiency (HCE) shows the efficiency of human asset/capital usage in creating value added. If the human resources cost is low while value added is high, then the firm uses its human capital efficiently, that is, optimally. Human capital efficiency can be defined as value added by human capital (HCE = Value Added ÷Human

Capital) (Pulic 2004).

2.1.2 Measurements in Human Resource Accounting

The major challenge in Human Resource Accounting is that of assigning monetary values to different dimension of human resource costs/ investment and the worth of employees. There are various model suggested for the measurements of human assets, they are classified into cost based approach and economic based model. The cost based approach is categorised into historical cost model, replacement cost model, opportunity cost model and standard cost model. While the economic based approach is the value of asset in the present value of the service that it is expected to render in future. Similarly, the economic value of human resource is the present worth of the service that they are likely to render in the future; the economic based model of calculating the value of individual may be classified into monetary and non-monetary methods. Cost is a sacrifice incurred to obtain some anticipated benefit or service. Costs have two elements visa the expense (human resource cost) and the assets element (human capital efficiency). The expense element is that which provides benefits during the current accounting period, whereas the asset portion is that which is expected to give rise to benefit in the future. The historical background of human resource accounting can be traced to the medieval European practice of calculating the cost of keeping a prisoner versus the expected future earning from him. The prisoners were seen to be the general property of the capturing side, consequently, after the victory a quick decision regarding whether to capture a prisoner or to kill him had to be taken based on the cost involved in keeping him and the benefit accruing from killing him (Sveiby, 1997). However, the development of human resource accounting as a systematic and detailed academic activity began in sixties (Flamholtz, 1972). The development can be divided into five stages they are:

First stage (1960-66): This marks the beginning of academic interest in the arena. However, the focus was primarily on deriving human resource accounting concept from other studies like economic theory of capital, psychological theories of leadership effectiveness as well as the measurement of corporate goodwill. Second stage (1966-71): At this stage, the focus was to develop and validate various models/tools that help organization manage their Human Resources. One of the earliest studies was carried out by Hermanson (1964) on problem of measuring the value of human assets as an element of goodwill. Third stage (1971-76): This period was marked by a widespread interest in the field of human resource accounting leading to rapid growth of research in the area. The focus in this stage was on the application of human resource accounting in business organization, the development of measurement and reporting model. Experiment was carried out in R.G Barry, the findings contributed substantially during this stage (R.G Barry Corporation, 1973).

Fourth stage (1976-1980): This period witness a decline in the arena of human resource accounting due to lack of sponsorship in the area of research. The complex issue that needed to be explored which required much deeper empirical research then was needed for the earlier simple models and the lack of sponsorship in area of research. Fifth stage (1980-till date): This period witness a sudden renewal of interest in the field due to the shift from manufacturing to service economic occasioned by globalization. Since the survival growth and profitability of organization were dependent more on intellectual assets than physical assets. The outcome of this renewal interest was the adoption of various models to suit organization requirement. Today, human and intellectual capital are perceived to be the strategic resources and therefore clear estimation of their value has gained significant important. The increased pressures for corporate governance and corporate code of conduct demanding transparency in accounting have further supported the need for developing methods of measuring human value. In Nigeria human resource valuation and reporting has not yet been institutionalized.

2.1.4 Financial Performance

Organizational performance evaluation or appraisal can be viewed from both financial and non-financial; this study is concerned with organizational financial performance. The crucial point to note is that the overall financial performance of a firm or organization in this context is limited to financial accounting ratios; this factor is relevant and paramount to the organizational financial analysis in this study. Stakeholders measure or evaluate the overall financial performance of a firm through its financial statements which shows the

results of the firm's business operating cycle within a year and to identify firm's strengths and weaknesses in order to proffer remedial solution. Furthermore, firm's future plan should be in line with the firm's financial strengths and weaknesses; consequently, financial analysis is the starting point for making plans, before adopting any advanced forecasting and planning techniques. Understanding the past is a prerequisite for anticipating the future (Adeniyi, 2011; Pandey, 2010). The study will be interested in activity ratio and profitability ratios, that is, return on investment (ROI), gross profit margin (GPM), return on equity (ROE), asset turnover (ATO) and net profit margin (NPM).

2.2 Theoretical framework

The study is anchored on human resource investment optimization theory (HRIOT) which has is basis from human capital, resource-based and stakeholder theories in order to understand the concept of optimality (i.e. cost and efficiency) as it relates to human resources valuation. The theories form the basis upon which the conceptual model was developed. The theories are explained thus:

Human capital theory was propounded by Schuttz (1993), and lengthily developed by Becker (1964). The theory emanated from branch of economics (i.e. labour economics) that focuses on general workforce in quantitative term. The theory contends that education or training augments productivity of an employee by imparting useful knowledge and skills, thus raising employees' future revenue through increase in their lifetime earnings. The theory suggests that expenditure on education or training and development is costly, and should be considered as investment since it is undertaken with a view to increasing incomes. General purpose human capital is knowledge gained through education and training in areas of value to a variety of firms such as generic skills in human resource development; while specific skills provide value only to a particular firm and such skills are of no value to competing firms (Becker, 1993).

The resources based theory of the firm blends concepts from organizational economics and strategic management (Barney, 1991). A fundamental assumption of this view is that organizations can be successful if they gain and maintain competitive advantage (Porter, 1985). Competitive advantage is gained by implementing a value-creating strategy that competitors cannot, easily copy and sustain (Barney, 1991) and for which there are no ready substitutes. For competitive advantage to be gained, two conditions are needed. First, the resources available to competing firm must be variable among competitors, and second, these resources must be immobile (i.e. not easily obtained). The resource based theory indicates that human resource provides a source of sustained competitive advantage which consist of four basic requirements; value, rare, imitable and organization (VRIO) that must be present within of organisation's human resource at all times. Three types of resources associated with organizations are; Physical (plant; technology and equipment; geographical location), Human (employees' experience and knowledge); and Organizational (structure; systems for planning, monitoring, and controlling activities; social relations within the organization and between the organization and external constituencies).

Stakeholder theory was proposed by Edward Freeman, a business owes responsibility to stakeholders as well, not just the shareholders. A stakeholder could be any person or a group who will be affected by the actions of the business. These include customers, employees, suppliers, and the community as well (Osisioma, Egbunike, & Jesuwunmi, 2015). This theory is an important element of the concept of corporate social responsibility (CSR). In light of this theory, companies have to take not only the legal and economic aspects of their business but also the ethical aspects into consideration. This theory centers on the issues concerning the stakeholders in an institution. It stipulates that a corporate entity invariably seeks to provide a balance between the interests of its diverse stakeholders in order to ensure that each interest constituency receives some degree of satisfaction.

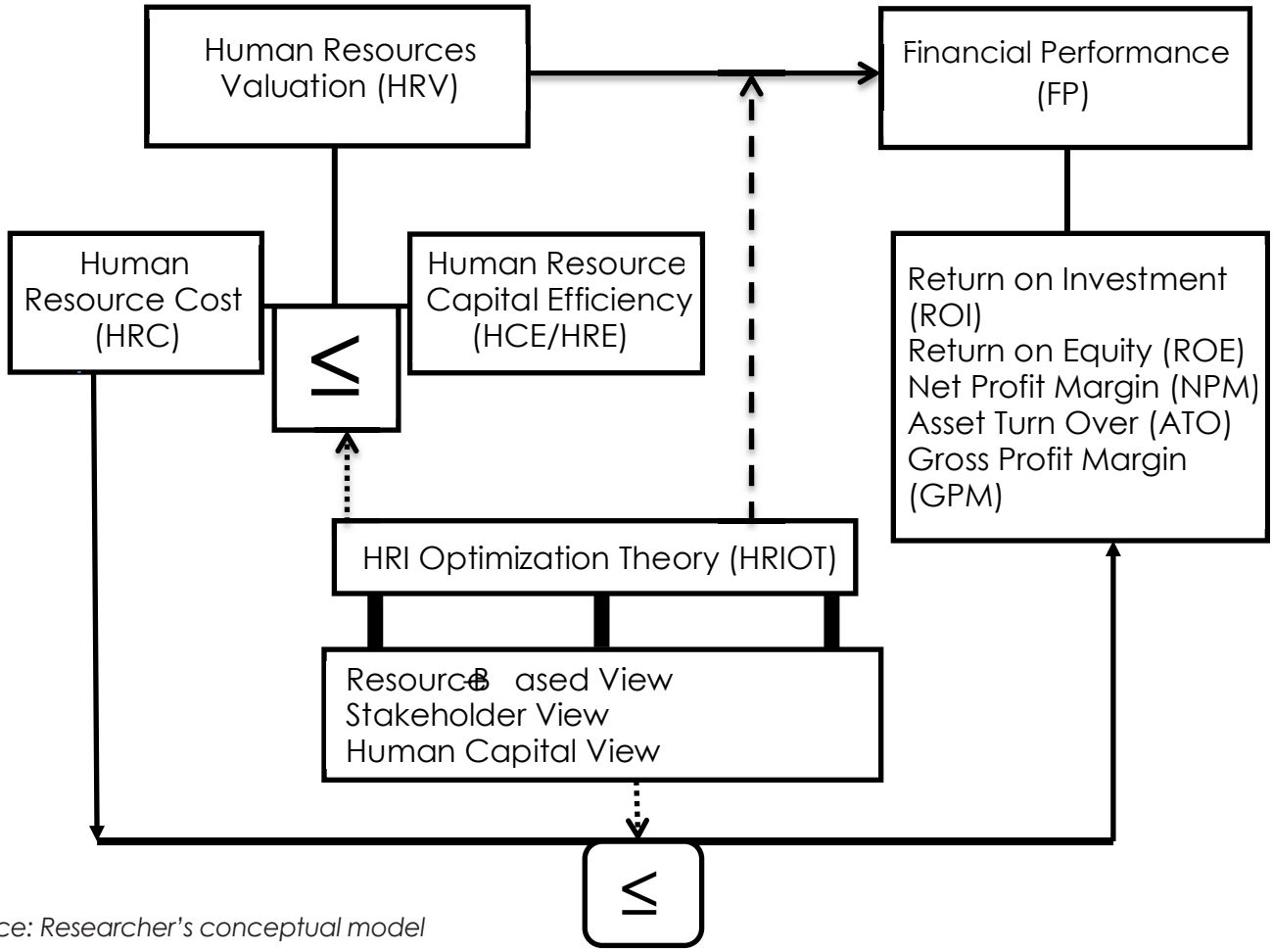
The firm has a fiduciary duty to maximize their returns and put their needs first. In more recent business models, the institution converts the inputs of investors, employees, and suppliers into forms that are saleable to customers, hence returns back to its shareholders (Wan, & Idris, 2012). This model addresses the needs of investors, employers, suppliers and customers. In summary, theory tries to consider others groups of people that have diverse interest in the business in order to improve business efficiency in the market place. Rajan and Zingales (1998) opined that the company has to safeguard the interests of all who contribute to the general value creation, that is, make specific investments

to a firm. These firms-specific investments can be diverse and include physical, human and social capital.

Human resources investment optimization theory (HRIOT) believes that set of processes and methods is to be matched with the available resources (human, machinery, financial) with the needs of the organization in order to achieve established goals. Optimization consists in achieving desired results within a set timeframe and budget with minimum usage of the resources themselves. The need to optimize resources is particularly evident when the organization's demands tend to saturate and/or exceed the resources currently available. In summary, theory opines that managers should lesser resources to achieve greater outputs.

2.3 Conceptual Framework

Figure 2.3.1: Conceptual Model of Human Resource Valuation and Nigerian Listed Companies' Financial Performance.



Source: Researcher's conceptual model

Figure 2.3.1 shows the links between the study and the theories is that it considers the cost of education, training and development as investment towards enhance productivity of an employee, the managers' aptitudes to create a balance between diverse stakeholders' interests in the organization and also considers the human resources characteristics of value, imitable, rareness and organization imbedded in the theories directly or indirectly affect employee productivity and firm's performance, creates a sort of competitive advantage which ultimately leads to optimal firm financial performance. Figure 2.3.1shown that human resource valuation is a predictor proxy by human resource cost and human capital efficiency; it further illustrated that investment in human resource (cost) should be less than human capital efficiency and financial performance surrogated by profitability and activity ratios. Consequently such investment on human capital must be shown in the financial statement. The management will be able to attain this through reduction in inputs

and increment in outputs which reflect optimality in human resources investment.

2.4 Review of Related Empirical Studies

Agbiogwu, Ihendinihu, and Azubike (2016) investigated the effects of human resources cost on the profitability of banks in Nigeria from 2010 – 2014 using First Bank Nigeria, Plc and Zenith bank Nig. Plc. The study adopted content method of analysis and linear regression model to test the stated hypotheses. Findings revealed that staff cost significantly affects Earnings per share, Net profit margin, and Return on capital employed of banks. The study recommends, among other things, that there should be a uniformed standard for identification and measurement of human capital assets.

Kwarbai and Akinpelu (2016) examined the impact of human capital efficiency on corporate performance of industrial goods companies listed in the Nigerian stock exchange market. For a period of 6 years (2009-2014,) the effect of human capital efficiency on performance was examined by applying the human capital component of the value added intellectual coefficient (VAIC) methodology. Multiple linear regression models were used for analyzing the relationship between the variables of interest; employees' growth (EG), earnings per Share (EPS), return on assets (ROA), human capital efficiency (HCE), lagged human capital efficiency and size of the firms. The finding survived a number of robustness check and the result indicates that there is positive significant relationship between human capital efficiency on ROA and EPS, and an insignificant negative relationship between human capital efficiency on size, lagged human capital efficiency and number of employee growth. This study contributes to the existing human capital theories by revealing the HCE of Industrial goods companies and its impact on corporate performance. They suggested that organizations should be committed to regular training and development of employees and ensuring the working environment is conducive for them in order to ensure improvement in employees' productivity and performance.

Olowolaju, and Oluwasesin, (2016) examined the effect of human capital on the profitability of quoted manufacturing companies in Nigeria. The study aimed at determining if expenditure on human has influence on the profitability of listed manufacturing companies on the Nigeria Stock Exchange. A sample of 10 listed manufacturing companies on the Nigeria Stock Exchange was used for the study. This study used data mainly from secondary sources and the analysis of data collected was done using descriptive and inferential statistics. The descriptive statistics include mean, standard deviation, kurtosis, skewness while inferential statistics that was used in testing the hypotheses include panel regression and correlation. The study revealed that all the explanatory variables have positive relationship with profitability; however, expenditure on health contributed more to the profitability of the firms. The study concluded that human capital expenditure significantly influenced profitability of manufacturing companies quoted on the Nigerian Stock Exchange and companies that place more emphasis on human capital, maintaining it and treating it as a pure asset will have motivated work force.

Omodero, Alpheaus, and Ihendinihu, (2016) in their study titled "Human resource costs and financial performance: Evidence from selected listed firms in Nigeria" observed that there is general lack of quantification and disclosure of human assets in domestic and international financial reports, and this appears to depress public assessment of the financial performance and value of firms. The study aimed to determine the extent to which investments in human resources influence profit after tax and turnover of firms in Nigeria. Secondary data on relevant financial variables were extracted from published financial statements of ten selected listed firms in Nigeria. The OLS technique was employed in analyzing the data and the results indicate that personnel benefit costs have positive and significant effect on profitability, explaining about 73.9% of the variations in profit after tax of firms in Nigeria. The results however reveal no significant effect of personnel benefit costs on firm turnover. The study therefore concludes that investments in human resources have positive trade-off effects on profitability and growth of firms and recommends greater commitment to manpower development and training, while providing proper infrastructures and conducive working environment to enhance the capacity of employees to drive positive improvements in corporate financial performance.

Adebawojo, Enyi, and Adebawo (2015) in their work titled "Human Asset Accounting and Corporate Performance", conducted their research on all eighteen publicly quoted banks in Nigerian capital market, using an ex-post facto research

design, questionnaire as their instrument of data collection and hypotheses was tested using simple regression model. The result confirmed that human asset accounting significantly affects banks' performance. It concluded that capitalizing human asset would positively impact on performance of organizations and recommends its disclosure as intangible asset in the statement of financial position.

Ifurueze et al. (2015), in their work, "Impact of Aggregated Cost of Human Resource on Profitability", examined the effect of aggregated and disaggregated cost of human resources on organisations' profitability. Data was extracted from internal source using a structured information card and annual financial report, while regression analysis was used for hypothesis testing. The findings showed that there is a positive relationship between profitability and human resource cost. The study recommends that companies should imbibe the culture of capitalising and reporting all investment on human resource that improve quality and productivity.

Edom, Inah, Adanma , Eyisi, (2015) studied the impact of human resource accounting on the profitability of Access Bank of Nigeria Plc, from 2003 to 2012. Using the ordinary least square analytical technique, secondary data from audited annual accounts and reports of Access Bank of Nigeria Plc were obtained. Findings revealed that there is a significant positive relationship between the indicators of human resource cost (training cost, development cost and number of staff) and the profit of the organization (Access Bank Plc). However, the number of staff does not have a significant effect on profit of the bank. Nonetheless, organizational performance is dependent upon the performance of the individuals that make up the organization. That is, organization does not exist in a vacuum; there are people (employees) who may work together towards achieving its goal. It was therefore recommended inter alia that; organization should enhance the retention of education and training on staff so as to avert wastage of knowledgeable investment. Also, accounting standard board should incorporate their accounting standard for the valuation and disclosure of human resource accounting.

Parham and Heling, (2015) investigated impact of human capital efficiency on financial performance of Dutch production companies. Using data from 33 Dutch production companies for a period of 6 years (2007-2012) and applying the human capital component of the VAIC methodology the monetary value created by the companies' knowledge workers is measured. Multiple linear regression models are used for analyzing the relationship between the performance of Human Capital and organizational performance measures including ROTA, ROE and EP. The study results revealed that there is positive relationship between HCE and all three corporate performance measures, amongst which it should be referred to the strongly statistically significant relationship between HCE and Employee Productivity (EP). Furthermore, it is significant in the sense that it will provide the companies' managers with vital information required for making decisions on proper deployment of their human capital and investment in this strategic asset.

Prosvirkina (2014) analysed human resources effectiveness in the Russian banking industry and its influence on organizational performance of banks. The sample of the research consists of one hundred ninety seven banks both local and international operated in Russia. Based on the data available in financial statements of banks, published by the Central Bank of the Russian Federation, several indicators were calculated, including return on investment in human capital (HCROI), return on assets (ROA), return on equity (ROE) and productivity. Their findings reveal that there is statistically significant correlation between HCROI and all selected organizational performance indicators of banks in Russia. Their findings demonstrate that HR effectiveness influences the performance of banks in Russia.

Ahmadu (2013) in his study investigated the association between human capital efficiency and financial performance of quoted Nigerian banks. Data were obtained from audited annual accounts and reports of the studied banks. The study adopted linear regression method of statistical analysis. The finding reveals that human capital efficiency has no significant impact on the EPS of Nigerian banks and Human capital efficiency has no significant impact on the ROE of Nigerian banks. The study found that efficient utilisation of human capital does not have any significant impact on the return of equity of banks. Also the size of a bank has no significant impact on it return on equity, while the return on equity of banks cannot be predicted by human capital efficiency and size of the banks.

Edirin,(2013) examined human capital accounting as it affects financial statement analysis and decision

making, since human capital is the major driver of the competitive advantage of companies globally and Nigeria in particular. A total of 145 respondents comprising of investors in the Nigerian capital market, practicing accountants and academics in tertiary institutions in Nigeria were used for the study. A validated self-structured questionnaire was the instrument used in gathering primary data for the study. Frequency counts, simple percentages and the chi-square (x2) were the statistical tools employed in the study. The finding reveals that there is a significant relationship between human capital accounting and the comparability of financial statements in Nigeria. The study recommended that appropriate steps must be taken by regulatory bodies to develop uniform acceptable standards and models for the computation of the value of human capital such that same can be reflected in the financial statements of entities in Nigeria. Also, the accountancy curriculum at both professional and academic level should be reviewed and updated to meet the present demands of HCA.

Zohreh and Safar (2013), in their work titled, "An Empirical Study of the Relationships among Human Capital Value and Profitability and Market Value," conducted on eight industries in Tehra stock exchange from 2005-2009 and a sample including sixty companies was selected by systematic filtering sampling method; while multivariate regression model and panel least square method with fixed effects were used to test hypotheses. The result showed that there is a significant relationship between human capital value and market value of a company; but no correlation between human capital value and profitability. The study recommended that further study should be conducted between human capital value and profitability.

Ahesha, and Sujani (2012) investigated the impact of investment in human capital on financial performances of the companies in Sri Lanka. In order to achieve the objective of the study, financial information in financial statements of listed companies under Colombo Stock Exchange for the period of 2 years from 2009 to 2010 was used. Sample of the study was selected as 40 companies listed under Colombo Stock Exchange. Data analysis was carried out with aid of SPSS (Statistical Package of Social Sciences). Findings revealed that there is a significant relationship between investment in human capital and firm financial performances. They recommended that investment in HC should include all the expenses incurred on enhancing knowledge, education, expertise and skills of employees. This may involve salaries and wages, training and development, payments for conventions and conferences, dues and subscriptions etc.

Bassey and Tarpang (2012), in their work, "Capitalized Human Resources Cost and its influence on Corporate Productivity", conducted on ten companies listed on the Nigerian stock exchange with the aid of a questionnaire using an ex-post facto design. The study revealed that acquisition and development cost are important determinants of human resources cost and does significantly influence corporate productivity. The study recommended the companies should use career management programs to assist their employees in career planning.

Effiok, Arzizeh, and Okon (2012) conducted a study titled "The impact of human capital cost on gross domestic product (GDP) in Nigeria" the study aimed at determining the extent to which human capital cost influences gross domestic product in Nigeria. Until now, human resource was treated as expenses and written off in profit and loss account. The research adopted a survey design for the study. The data collected were tabulated and analyzed using the Ordinary Least Square (OLS). The study revealed that human capital costs mirrored by acquisition, development, remuneration and protection costs do affect significantly gross domestic product in Nigeria. The study recommended that there is urgent need for the installation and maintenance of total quality management in Nigeria to enable it remains competitive in the global market. This is because employee's education, training and development are the key vehicle for building the economy and employee's capabilities. Finally, government should try to understand and appreciate the value of human capital as it is the most important determinant of it success.

Perera and Thrikawala, (2012) investigated the influence of human capital investment on financial performances of companies in Sri Lanka. In order to achieve the objective of the study, financial information was obtained from the listed companies' audited annual accounts and reports under Colombo Stock Exchange for the period of 2 years from 2009 to 2010 was used. Sample of the study was selected as 40 companies listed under Colombo Stock Exchange. Correlation coefficient was used as a method of data analysis. Findings

revealed that there is a significant relationship between investment in human capital and firm financial performances.

Zohreh and Safar (2011) conducted a study on effect of human capital on profitability and market value in a sample of Iranian firms. Eight industries in Tehran Stock Exchange from 2005 to 2009 were selected. Then a sample including 60 companies was selected by systematic filtering sampling method. The Multivariate Regression Model and Panel Least Square method (with Fixed Effects) were used. The results showed that there is a signification relation between human capital values with market values of companies. But there is no correlation between human capital value and profitability. In other words, although human capital value is not manifested in financial performance index (profitability), but market considers values for these assets.

Yusuf (2011) assessed the impact of human capital investment on the performance of Nigeria banks. The study covers banks quoted on the Nigerian stock exchange as at 2005. A sample size of 6 banks was obtained; 2 from the old generation and 4 from the new generation bank. Secondary source of data was used for the data collection, salaries and allowances were used as the proxy for human capital investment while Market price per share, Earning per share and Book Value per share were used as the proxies of performance. Regression was used to test the hypotheses. The study found that there is significant relationship between MPS and human capital investment; there is a significant relationship between BVS and human while there is no significant relation between EPS and human capital. The study also found that human capital investment has positive impact on the efficiency of banks' employees. The study recommends, among others, that banks should increase human capital investment in order to increase their MPS and BVS. In addition, there is need for Nigerian banks to ascertain the level of human capital that can be seen to be optimal so that redundancy and under utilisation would not be encouraged.

Numerous scholars have conducted researches on the relationship or influence of human resources accounting on companies' financial performance. Human resource investment, measurement, disclosures and profitability were used as variables none of the studies considered human resources cost efficiency or optimization, majority of the studies adopted questionnaires for data collection to measure influence of human resources accounting on firms' financial performance.

Again the methodologies or techniques adopted are not sufficient to cross-examine research data. And more importantly, based on empirical literature reviewed no study has examined the combined contribution of human resources cost and human resources efficiency on quoted Nigerian firms' financial performance.

Hence, this study tries to fill the gap by investigating the contributions of human resource valuation on financial performance of selected listed companies in Nigeria. This research work also gives attention to relevant theories, variables and methodology in order to have good external validity.

3. METHODOLOGY

This research work adopts an ex-post facto or causal-comparative research design. This design is very appropriate where it is not possible for the researcher to directly manipulate the independent variable, (Onyeizugbe, 2013). This study was carried out in Nigeria. Nigeria is located in the south western part of West Africa; it shares boarders with the Republic of Benin in the West, Chad and Cameroon in the East, and Niger in the North. Its coast lies on the Gulf of Guinea in the South and it boarders Lake Chad to the North East. It has an estimated land area of about 15, 000 sq.km. The total population in Nigeria was estimated at 142 million people according to the latest census figure (Nigeria Population Census, 2006). The administrative headquarters of the country is the Federal Capital Territory (FCT), and there are thirty-six states in Nigeria (www. population.gov.ng).

The population of the study refers to the totality of all the elements or variables under study (Nworgu, 2012).The population of this study consist of 186 companies listed on the 12 sectors of Nigerian Stock Exchange (NSE).The non-probability convenience sampling technique was adopted for convenience and to determine the number of firms that will be selected for the study; this selection will be based on availability of firm's financial statements. The sample size consists of twenty-four listed companies drawn out of 186 listed companies. Convenience sampling technique was adopted for relative ease of access and availability of data needed for the study (Wiederman, 1999). These firms were selected

because of availability and ease of getting their financial information; and they consist of companies that deal on production of goods and services, see Table 3.1.1 for details.

We also adopted the sampling method of Tabachnick and Fidell (2007) in determining our observations, that is, $n \geq 50 + 8m = 50 + 8(3) = 74$, that is, our sample size (that is, pooled regression observations) should not be less than 74. In order to have a good regression analysis result or good fit. M represents number of regressors in the model.

Table 3.1.1: Manufacturing companies selected from three sectors as the sample size.

S/N	Names Of Companies	Sector	Sub-Sector
1	Flour mills Plc.	Consumer goods	Food product (diversified)
2	Unilever Nigeria Plc.	Consumer goods	Food product (diversified)
3	Northern Nigeria flour mills Plc.	Consumer goods	Food product (diversified)
4	Nascon allied industries Plc.	Consumer goods	Food product (diversified)
5	Cadbury Nigeria Plc.	Consumer goods	Beverages (non-alcoholic)
6	Dangote sugar refinery Plc.	Consumer goods	Beverages (non-alcoholic)
7	Nestle Nigeria Plc.	Consumer goods	Beverages (non-alcoholic)
8	International breweries Plc.	Consumer goods	Beverages (alcoholic)
9	Nigerian breweries Plc.	Consumer goods	Beverages (alcoholic)
10	Champion breweries Plc.	Consumer goods	Beverages (alcoholic)
11	Paints and coatings manufactures Plc.	Industrial goods	Building materials
12	Ashaka cement Plc.	Industrial goods	Building materials
13	Berger paints plc.	Industrial goods	Building materials
14	Beta glass plc.	Industrial goods	Building materials
15	Okomu oil palm plc.	Agriculture	Crop production
16	Livestock feeds plc.	Agriculture	Livestock specialists
17	Courtville business solution plc-2015	ICT	Computer Systems & software
18	OMATEK ventures plc.	ICT	ICT Products and Services
19	Computer warehouse group plc.	ICT	Computers and peripherals
20	NCR Nigeria plc.	ICT	Other ICT Products and Services
21	Tripple gee and company plc.	ICT	Other ICT Products and Services
22	Champ plc. ICT	Diversified Com. Services	
23	e-Tranzact international Plc.	ICT	Processing Systems
24	Mass telecommunication plc.	ICT	Telecommunications Services

Source: Nigerian Stock Exchange, (2016)

The study adopts a secondary technique of data collection. Data were collected from the audited annual accounts and reports of the selected quoted companies, the annual accounts and reports selected will cover the period of seven years, that is, from 2011 to 2016. The instrument is valid and reliable since they have been signed by the management of the firms, approved by the security and exchange commission, and other scholars have used the annual audited financial statements to carry out related study, therefore the instrument is deemed to be valid.

The study adopts standardized multiple linear regression (Ordinary Least Square-OLS) and Karl Pearson Product Moment Correlation Coefficient-(PPMCC) to analyse data via SPSS version 23. The study involved time series and cross-sectional data (that is, six time series and twenty-four listed companies which is one hundred and forty-four (144) observational pooled data). Our theoretical expectation **(Aprior)** that is, $\beta 1$ to $\beta 10 \geq 0$ and the data conform to the standardized multiple linear regression assumptions that is, linearity, homoscedasticity, normality and independence of data. The graphs is within the acceptable limits; tolerance value should not be less than 0.10 (10%), variance inflationary factor (VIF) should not be greater than 10, otherwise possible multicolinearity; Durbin Watson statistics should be within the range of 1-3, (Gujarati, Porter & Gunasekar, 2012; Kothari, & Gaurav, 2014; Tabachnick & Fidell, 2007) see Appendix-I for more details. The decision is based on 5% level of significant. Accept null hypothesis (H0) if probability value (i.e. P-value or Sig.) calculated is greater than or equals to (≥) stated 5% level of

significance (α); otherwise, reject and accept alternate hypothesis (Ha), if p-value or sig calculated is less than 5% level of significance (Osisioma, Egbunike & Jesuwunmi, 2015).

Model specification and Variables Measurement

Financial Performance (FP) =*f* (Human resource valuation-HRV)

Financial Performance is a function of Human resource valuation-HV

Introduce the surrogates (i.e. proxy variables)

FP-(ROIit, GPMit ATOit, ROEit, NPMit) = *f* (HRV-HRCit, HCEit)…..eqn.1

Financial performance is proxy by ROI, GPM, ATO, ROE, NPM, while human resource valuation is proxy by HRC, HCE

ROIit =Ð0 + β1HRCit + β2HCEit…….eqn.2

GPMit = Ð1 + β3HRCit + β4HCEit …..eqn.3

ATOit =Ð2 + β5HRCit + β6HCEit….eqn.4

ROEit = Ð3 + β7HRCit + β8HCEit …..eqn.5

NPMit = Ð11 + β9HRCit + β10HCEit …..eqn.6

Note: equation2 to 6 are deterministic or mathematical models;

Introduce the stochastic random variable (error term) into the model.

ROIit =Ð0 + β1HRCit + β2HCEit + Ðit…....eqn.7

GPMit = Ð1 + β3HRCit + β4HCEit + Ðit….eqn.8

ATOit = Ð2 + β5HRCit + β6HCEit +Ðit….eqn.9

ROEit = Ð3 + β7HRCit + β8HCEit + Ðit…..eqn.10

NPMit = Ð4 + β9HRCit + β10HCEit + Ðit…..eqn.11

Note: equation2 to 6 are deterministic or mathematical models; equations 7 to 11 are multiple linear regression models or econometric models.

Table3.1.2: Variables measurement and nomenclature

S/N	Names & Codes	Measurement	Variable type
1	Financial Performance-FP	FP=ROI, GPM, ATO, ROE, NPM	Latent-Endogenous
2	Return on investment –ROI	ROI = Earnings before Interest Tax Depreciation Amortization(EBITDA) ÷ [Total Assets - current liability OR share capital + long-term liability]	Observed/measured endogenous
3	Gross profit margin –GPM	GPM= [Gross profit ÷ total revenue (income)] *100	Observed endogenous
4	Asset turnover ATO	ATO = Revue(sales)/total asset	Observed/ explained
5	Return on equity ROE	ROE= Earnings after tax (EAIT) ÷ number of outstanding ordinary shares	Observed/ explained
6	Net profit margin NPM	NPM= [Net after profit ÷ total revenue (income)] *100	Observed/ explained
7	Human Resource Valuation-HRV	HRV= HRC, HCE	Latent/hidden exogenous
8	Human resource cost-HRC	HRC= human resource development and acquisition cost	Observed/measured exogenous
9	Human capital efficiency-HCE	HCE= Value Added÷ Human Capital	Observed exogenous
10	β1-8	Regression coefficient	Parameter
11	Ð0-4 (Gandia)	Intercept /constant term	Parameter
12	Ð	Functional notation	
13	I	Individual firms	
14	T	Time/ year	

Source: Nigerian Stock Exchange, (2016)

The panel data methodology is adopted because the study combined time series and cross-sectional data, that is, twenty-four cross-sectional observations for each year and six time series for each listed companies on regressor and explained variables, a total of one hundred and forty-four (144) pooled observations.

A panel data set has multiple entities each of which has repeated measurements at different time periods, Hill (2009). Panel data give more informative data, more degrees of freedom and more efficiency. They also provide ways of dealing with diverse data and examine fixed and random effects on the longitudinal data.

4. Data Analysis and Results
4.1 Answers to Research Questions

i. To what extent is the joint impact of human resource cost (HRC) and human capital efficiency (HCE) on return on investment (ROI) of Nigeria listed firms?

Table-4.1.1: Multiple regression analysis model summary of human resource valuation surrogates' prediction on ROI of listed Nigerian firms.

R	R^2	Adj. R^2	Std. Error of the Estimate
.440	.194	.180	.107871

Source: Researcher's computation using SPSS version-23

The multiple regression result of the study is presented in table 4.1.1. The regression result in Table 4.1.1 is run by taking ROI as explained variable and human resources valuation surrogates as regressors. The regression output reveals that the regressand is well explained by the predictors in the model with R-square and adjusted R-square of .194 and .180 (18%) respectively. While the unexplained variation in the model, that is, error term or stochastic random variable (Ð) had captured .820 or 82% variations.

ii. What is the joint impact of human resource cost (HRC) and human capital efficiency (HCE) on gross profit margin (GPM) of Nigeria listed firms?

Table-4.1.2: Multiple regression analysis model summary of HRC and HCE prediction on GPM of listed Nigerian firms.

R	R^2	Adj. R^2	Std. Error of the Estimate
.604	.365	.354	.219453

Source: Researcher's computation using SPSS version-23

The multiple regression result of the study is presented in table4.1.2. The regression result in Table 4.1.2 is run by taking GPM as explained variable and HRV surrogates as regressors. The regression output reveals that the regressand is well explained by the predictors in the model with R-square and adjusted R-square of .365 and .354 respectively. While the error term or stochastic random variable (Ð) had explained .646 or 64.6% variations in the model.

iii. What is the joint impact of human resource cost (HRC) and human capital efficiency (HCE) on asset turnover (ATO) of Nigeria listed firms?

Table-4.1.3: Multiple regression analysis model summary of HRC and HCE prediction on ATO of listed Nigerian firms.

R	R^2	Adj. R^2	Std. Error of the Estimate
.356[a]	.126	.111	93.228808

Source: Researcher's computation using SPSS version-23

The multiple regression result of the study is presented in table 4.1.3. The regression result in Table 4.1.3 is run by taking ATO as explained variable and HRV surrogates as explanatory variables. The regression output reveals that the regressand is explained by the predictors in the model with R-square and adjusted R-square of .126 and .111 respectively. While the unexplained variations that is, error term or stochastic random variable (Ð) had captured .889 or 88.9% variations in the model.

iv. What is the joint impact of human resource cost (HRC) and human capital efficiency (HCE) on return on equity (ROE) of Nigeria listed firms?

Table-4.1.4: Multiple regression analysis model summary of HRC and HCE prediction on ROE of listed Nigerian firms.

R	R^2	Adj. R^2	Std. Error of the Estimate
.263[a]	.069	.053	.706091

Source: Researcher's computation using SPSS version-23

The multiple regression result of the study is presented in table4.1.4 the regression result in Table4.1.4 is run by taking ROE as a dependent variable and HRV surrogates as regressors. The regression output reveals that the regressand is explained by the predictors in the model with R-square and adjusted R-square of .069 and .053 respectively. While the unexplained variation by the model, that is, error term or stochastic random variable (Đ) had captured .989 or 98.9% variation.

v. What is the joint impact of human resource cost (HRC) and human capital efficiency (HCE) on net profit margin (NPM) of Nigeria listed firms?

Table-4.1.5: Multiple regression analysis model summary of HRC and HCE prediction on NPM of listed Nigerian firms.

R	R^2	Adj. R^2	Std. Error of the Estimate
.188	.035	.019	1.602817

Source: Researcher's computation using SPSS version-23

The multiple regression result of the study is presented in table4.1.5. The regression result in Table4.1.5 is run by taking NPM as a dependent variable and HRV surrogates as regressors. The regression output reveals that the regressand is explained by the predictors in the model with R-square and adjusted R-square of .035 and .019 respectively. While the error term or stochastic random variable (Đ) is .989 or 98.9% variation.

vi. What is the magnitude and directions of associations between human resources cost (HRC) and return on investment (ROI) of Nigeria listed firms?

Table-4.1.6: Karl Pearson Product Moment Correlation Coefficient Statistics between HRV and return on investment (ROI) of listed Nigerian firms.

	Return on investment (ROI)
Pearson Correlation-HRC	.284**
N	120

Source: Researcher's computation using SPSS version-23

Table 4.1.6 had shown the magnitude and direction of relationship or association between human resource cost-HRC and return on investment (ROI) of listed Nigerian firms. It was showed that there is positive relationship (R = .284), that is 28.4%; this shown that there is relationship between the aforementioned variables. Can we conclude that there is insignificant relationship between the variables? This led us to test of hypothesis.

vii. What is the correlation between human resource efficiency (HCE) and return on equity (ROE) of Nigeria listed firms?

Table-4.1.7: Karl Pearson Product Moment Correlation Coefficient Statistics between HCE and return on equity (ROE) of listed Nigerian firms.

	Return on investment (ROI)
Pearson Correlation-HRC	.170
N	120

Source: Researcher's computation using SPSS version-23

Table 4.1.7 had shown the magnitude and direction of relationship or association between human resource cost-HRC and return on equity (ROE) of listed Nigerian firms. It was showed that there is positive relationship (R = .170), that is 17%; this shown that there is relationship between the aforementioned variables. Can we conclude that there is significant relationship between the variables? This led us to test of hypothesis.

4.2 Test of Hypotheses

i. The joint impact of human resource cost (HRC) and human capital efficiency (HCE) on return on investment (ROI) of Nigeria listed firms is not statistically significant.

Table-4.2.1: ANOVA multiple regression analysis model summary of human resource valuation prediction on ROI of listed Nigerian firms.

	Sum of Squares	df	Mean Square	F	Sig.	Decision
Regression	.327	2	.164	14.069	.000	Accept alternate hypothesis (Ha)
Residual	1.361	117	.012			
Total	1.689	119				

Source: Researcher's computation using SPSS version-23

Furthermore, Table 4.2.1 showed that the two explanatory variables (i.e. human resource cost and human capital efficiency) jointly contributed significantly to the prediction of Return on investment (ROI), (F (2, 117) = 14.069, Adj.R2 = .18; P =.000). However, the remaining variation not explained by the joint contribution of the human resource valuation surrogates might be accounted for by the effects of extraneous or stochastic random variables. Therefore, the human resource valuation proxy variables were significantly joint contributors to the prediction of listed Nigerian firms' financial performance as proxy by return on investment (ROI) among the firms in Nigeria.

Table-4.2.2: The Relative Contributions (coefficients) of each of human resource valuation proxies to return on investment (ROI) of listed Nigerian firms.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Remarks
	B	Std. Error	Beta			
(Constant)	-.286.	094		-3.036	.003	Significant
Human Capital Efficiency	.020	.005.	353	4.054	.000	Significant
Log of Human Resource Cost	.046	.010.	390	4.481	.000	Significant

Source: Researcher's computation using SPSS version-23

The result in Table 4.2.2 showed the beta (β) weights of estimates of the strengths of the causation. The entire human resource valuation proxy variables shown to contribute differentially to return on investment (ROI) among listed Nigerian firms' financial performance; human resource cost and human capital efficiency had contributed positively to the variation in return on investment (ROI) which was statistically significant, HRC β=.390 (t=4.48,p=.000), and HCE β=.353(t=4.054,p=.000) respectively; their independent positive contributions to the prediction of listed Nigerian firms' financial performance proxy by return on investment (ROI) is statistically significant.

ii. The joint impact of human resource cost (HRC) and human capital efficiency (HCE) on gross profit margin (GPM) of Nigeria listed firms is not statistically significant.

Table-4.2.3: ANOVA Multiple regression analysis model summary of HRV prediction on GPM of listed Nigerian firms.

	Sum of Squares	df	Mean Square	F	Sig.	Decision
Regression	3.241	2	1.621	33.650	.000	Accept alternate hypothesis (Ha)
Residual	5.635	117	.048			
Total	8.876	119				

Source: Researcher's computation using SPSS version-23

In addition, Table 4.2.3 showed that the two explanatory variables (i.e. human resource cost and human capital efficiency) jointly contributed significantly to the prediction of gross profit margin (GPM), (F(2, 34) = 33.65, Adj.R2 = .354; P=.000). However, the remaining variation not explained by the joint contribution of the human resource valuation surrogates might be accounted for by the effects of extraneous or stochastic random variables. Therefore, the human resource valuation proxy variables were significantly joint contributors to the prediction of Nigeria listed firms' financial performance as proxy by gross profit margin (GPM).

Table-4.2.4: The Relative Contributions (coefficients) of each of the Regressors to the Joint Prediction of gross profit margin (GPM) among listed Nigerian firms.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Remarks
	B	Std. Error	Beta			
(Constant)	.321	.192		1.673	.097	Insignificant
Human Capital Efficiency	.074	.010	.586	7.589	.000	Significant
Log of Human Resource Cost	-.014	.021	-.053	-.691	.491	Insignificant

Source: Researcher's computation using SPSS version-23

The result in Table 4.2.4 indicated that the beta (β) weights of estimates of the strengths of the causation. The entire human resource valuation proxy variables shown to contribute differentially to gross profit margin (GPM) of Nigeria listed companies; human capital efficiency and human resource cost had contributed both positively and negatively to the variation in gross profit margin (GPM) which were statistically significant and insignificant to listed companies' financial performance, HCE β=.586(t=7.589,p=.000) and HRC β=-.053(t=-.691,p=.491), respectively; their independent contributions to the prediction of the regressand is statistically differ to listed Nigerian firms'

financial performance proxy by gross profit margin (GPM).

iii. The joint impact of human resource cost (HRC) and human capital efficiency (HCE) on asset turnover (ATO) of Nigeria listed firms is not statistically significant.

Table-4.2.5: ANOVA Multiple regression analysis model summary of HRV prediction on ATO of listed Nigerian firms.

	Sum of Squares	df	Mean Square	F	Sig.	Decision
Regression	147127.660	2	73563.830	8.464	.000	Accept alternate hypothesis (Ha)
Residual	1016918.453	117	8691.611			
Total	1164046.113	119				

Source: Researcher's computation using SPSS version-23

In addition, Table4.2.5 showed that the two explanatory variables (i.e. human resource cost and human capital efficiency) jointly contributed significantly to the prediction of asset turnover (ATO), (F (2, 117) =8.45, Adj.R2 = . .011; P=.000). However, the remaining variation not explained by the joint contribution of the human resource valuation surrogates might be accounted for by the effects of extraneous or stochastic random variables. Therefore, the human resource valuation proxy variables were significantly joint contributors to the prediction of Nigeria listed firms' financial performance as proxy by asset turnover (ATO).

Table-4.2.6: The Relative Contributions (coefficients) of each of the Regressors to the Joint Prediction of ATO among listed Nigerian firms.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Remarks
	B	Std. Error	Beta			
(Constant)	-209.536	81.391		-2.574	.011	Significant
Human Capital Efficiency	-6.321	4.168	-.137	-1.517	.132	Insignificant
Log of Human Resource Cost	28.439	8.908	.289	3.192	.002	Significant

Source: Researcher's computation using SPSS version-23

The result in Table4.2.6 indicated that the beta (β) weights of estimates of the strengths of the causation. The entire human resource valuation proxy variables shown to contribute differentially to asset turnover (ATO) of Nigeria listed companies; human resource cost and human capital efficiency had contributed both positively and negatively to the variation in asset turnover (ATO) which were statistically insignificant to listed companies' financial performance, HRC β=.289(t=3.192,p=.002), and HCE β=-.137(t=-1.517,p=.132) respectively; their independent contributions to the prediction of the regressand is statistically differ to listed Nigerian firms' financial performance proxy by asset turnover (ATO).

iv. The joint impact of human resource cost (HRC) and human capital efficiency (HCE) on return on equity (ROE) of Nigeria listed firms is not statistically significant.

Table-4.2.7: ANOVA multiple regression analysis model summary of HRV prediction on ROE of listed Nigerian firms.

	Sum of Squares	df	Mean Square	F	Sig.	Decision
Regression	4.337	2	2.169	4.350	.015	Accept alternate hypothesis (Ha)
Residual	58.332	117	.499			
Total	62.669	119				

Source: Researcher's computation using SPSS version-23

In addition, Table4.2.7 showed that the two explanatory variables (i.e. human resource cost and human capital efficiency) jointly contributed significantly to the prediction of return on equity (ROE), (F (2, 117) = 4.350, Adj.R2 = .053; P=.015). However, the remaining variation not explained by the joint contribution of the human resource valuation surrogates might be accounted for by the effects of extraneous or stochastic random variables. Therefore, the human resource valuation proxy variables were significantly joint contributors to the prediction of Nigeria listed firms' financial performance as proxy by return on equity (ROE)

Table-4.2.8: The Relative Contributions (coefficients) of each of the Regressors to the Joint Prediction of return on equity (ROE) among listed Nigerian firms.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Remarks
	B	Std. Error	Beta			
(Constant)	-1.352	.616		-2.193	.030	Significant
Human Capital Efficiency	.079	.032	.234	2.497	.014	Significant
Log of Human Resource Cost	.152	.067	.210	2.248	.026	Significant

Source: Researcher's computation using SPSS version-23

.The result in Table 4.2.8 indicated that the beta (β) weights of estimates of the strengths of the causation. The entire human resource valuation proxy variables shown to contribute differentially to return on equity (ROE) of Nigeria listed companies; human resource cost and human capital efficiency had contributed positively to the variation in return on equity (ROE) which were statistically significant to listed companies' financial performance, HRC β=.210(t=2.248,p=.026), and HCE β=.234(t=2.497,p=.014) respectively; their independent contributions to the prediction of the regressand is statistically significant to listed Nigerian firms' financial performance proxy by return on equity (ROE).

v. The joint impact of human resource cost (HRC) and human capital efficiency (HCE) on net profit margin (NPM) of Nigeria listed firms is not statistically significant.

Table-4.2.9: ANOVA multiple regression analysis model summary of HRV prediction on NPM of listed Nigerian firms.

	Sum of Squares	df	Mean Square	F	Sig.	Decision
Regression	11.035	2	5.517	2.148	.121	Accept alternate hypothesis (Ha)
Residual	300.576	117	2.569			
Total	311.611	119				

Source: Researcher's computation using SPSS version-23

In addition, Table 4.2.9 showed that the two explanatory variables (i.e. human resource cost and human capital efficiency) jointly contributed insignificantly to the prediction of net profit margin (NPM), (F (2, 117) = 2.148, Adj.R2 = .019; P=.121). However, the remaining variation not explained by the joint contribution of the human resource valuation surrogates might be accounted for by the effects of extraneous or stochastic random variables. Therefore, the human resource valuation proxy variables were insignificant joint contributors to the prediction of Nigeria listed firms' financial performance as proxy by net profit margin (NPM).

Table-4.2.10: The Relative Contributions (coefficients) of each of the Regressors to the Joint Prediction of net profit margin (NPM) among listed Nigerian firms.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Remarks
	B	Std. Error	Beta			
(Constant)	-.956	1.399		-.684	.496	Insignificant
Human Capital Efficiency	.148	.072	.197	2.072	.040	Significant
Log of Human Resource Cost	.088	.153	.055	.573	.568	Insignificant

Source: Researcher's computation using SPSS version-23

The result in Table 4.2.10 indicated that the beta (β) weights of estimates of the strengths of the causation. The entire human resource valuation proxy variables shown to contribute differentially to net profit margin (NPM) of Nigeria listed companies; human resource cost and human capital efficiency had contributed both negatively and positively to the variation in net profit margin (NPM) which were statistically insignificant to listed companies' financial performance, HRC β=-.519(t=-1.240,p=.224), and HCE β=.630(t=1.505,p=.142) respectively; their independent contributions to the prediction of the regressand is statistically insignificant to listed Nigerian firms' financial performance proxy by net profit margin (NPM).

vi. What is the magnitude and directions of associations between human resources cost (HRC) and return on investment (ROI) of Nigeria listed firms?

Table-4.2.11: Karl Pearson Product Moment Correlation Coefficient Statistics between HRC and return on investment (ROI) of listed Nigerian firms.

	Return on investment (ROI)
Pearson Correlation-HRC	.284
Sig. (2-tailed) .	002
N	120

Source: Researcher's computation using SPSS version-23

Table 4.2.11 had shown the magnitude and direction of relationship or association between human resource cost-HRC and return on investment-ROI of listed Nigerian firms. It was showed that there is positive relationship (R = .284), that is 28.4%; this shown that there is relationship between the aforementioned variables. Can we conclude that there is insignificant relationship between the variables? This led us to test of hypothesis. It was showed that there is positive significant relationship (R = .284; p=.002). We therefore, accept the null hypothesis (HO) and reject the alternate hypothesis (Ha) and conclude that the degree and direction of relationship between return on investment (ROI) and human resource cost (HRC) among the listed Nigerian firm is significant.

vii. The correlation between human capital efficiency (HCE) and return on equity (ROE) of Nigeria listed firms is not statistically significant.

Table-4.2.12: Karl Pearson Product Moment Correlation Coefficient Statistics between HCE and return on equity (ROE) of Nigeria listed firms.

	Return on equity (ROE)
Pearson Correlation-HCE	.170
Sig. (2-tailed)	.063
N	120

Source: Researcher's computation using SPSS version-23

Table 4.2.12 presents the magnitude and direction of relationship or association between human capital efficiency-HCE and return on equity-ROE of listed Nigerian firms. It was revealed that there is positive relationship (R = .170), that is 17%; this shown that there is relationship between the aforesaid variables. Can we wrap up that there is insignificant relationship between the variables? This led us to test of hypothesis. It was showed that there is positive significant relationship (R = .170; p=.063). We therefore, accept the null hypothesis (HO) and reject the alternate hypothesis (Ha) and conclude that the degree and direction of relationship between return on equity (ROE) and human capital efficiency (HCE) among the listed Nigerian firm is not significant.

4.4 Discussion of findings

Human resource valuation proxy variables were significantly joint contributors to the prediction of listed Nigerian firms' financial performance as proxy by return on investment (ROI) among the firms in Nigeria. Human capital efficiency and human resource cost have positive significant impact on profitability. This result is consistent with the findings of (Adebawojo e tal, 2015; Agbiogwu, e tal, 2016; Kwarbai & Akinpelu ; Okpako, Atube, & Olufawoye, 2014; Olayiwola, 2016; Omodero, e tal, 2016; Prosvirkina, 2014) who agreed that human assets or capital had positive impact on organizational profitability but this result is not aligning with the findings of (Ahmadu, 2013; Izedonme, Odeyile & Kuegbe, 2013; Khadijeh & Arash, 2014), their results revealed that human assets or investment in human has no significant impact of effect on firms' financial performance.

Furthermore, human resource cost and human capital efficiency were significantly joint contributors to the prediction of gross profit margin (GPM), asset turnover (ATO), and return on equity (ROE) this corroborated with the findings of (Bassey & Tarpang, 2012; Kwarbai & Akinpelu ; Okpako, Atube, & Olufawoye, 2014; Olayiwola, 2016; Prosvirkina, 2014) they discovered that human resource accounting

surrogates substantially influenced companies' or organizational profitability but this deviate from the results of (Izedonme, Odeyile & Kuegbe, 2013; Khadijeh & Arash, 2014) who reported that human value or human capital has no significant positive impact on companies' profitability. In addition, human capital efficiency has negative insignificant effect on asset turnover (ATO) this result is similar to the findings of Ahmadu (2013) who discovered that human capital efficiency has no significant impact on profitability of Nigerian banks. While human resource cost has positive significant impact on asset turnover (ATO) this result has been corroborated with the findings of Omodero, Alpheaus, and Ihendinihu, (2016) they reported that human resource cost have positive and significant effect on profitability of Nigerian firms.

In summary, human capital efficiency (HCE) has positive significant effect on four of the financial performance surrogates except the negative insignificant effect it had on asset turnover (ATO) while human resource cost (HRC) has significant impact on three of the financial performance surrogates but it has insignificant positive and negative impact on net profit margin (NPM) and gross profit margin (GPM) respectively.

The degree and direction of relationship between return on investment (ROI) and human resource cost (HRC) is significant. This finding is substantiated by the results of (Ayanda, Lawal & Ben-Bernard, 2014; Edom, Inah, Adanma, & Eyisi, 2015; Ifurueze et al, 2015; Olowolaju, & Oluwasesin, 2016) they all reported that there is a positive relationship between the indicators of human resource cost (acquisition, training, development etc.) and organizational financial performance. But this result did not aligned with the findings of (Zohreh & Safar, 2011; Yusuf, 2011) they reported that there is no correlation between human resource /capital value and firms' profitability. While degree and direction of relationship between return on equity (ROE) and human capital efficiency (HCE) among the listed Nigerian firm is not significant. This findings is supported by the findings of (Yusuf, 2011; Zohreh & Safar ,2013) but negated by the result of Parham and Heling, (2015) who observed that there is positive significant relationship between human capital efficiency and organizational profitability.

Finally our empirical results show that the prediction of human resource valuation surrogate had moderately predicted the listed Nigerian companies' financial performance proxy variables.

5. Implications, Conclusion and Recommendations

5.1 Implications of Findings

From the empirical results we are able to infer that human resource valuation proxy variables have both positive and negative impact on the financial performance proxy variables. Holding all other factors constant, the additional change in human resource cost (HRC) or human capital efficiency (HCE) will lead to increase in return on investment (ROI) to the tune of thirty-nine percent (39%) and thirty-five point three percent (35.3%) respectively. They are both statistically significant to listed companies' performance in Nigeria respectively. This can be represented in a model form ROIit = -.286 + .390HRCit + .353HCEit + Đit…... the fitted model.

Likewise, for return on equity "ceteris paribus" that is all things being equal, one marginal change in human resource cost (HRC) or human capital efficiency (HCE) will cause a significant change of twenty-one percent (21%) and twenty-three point four percent (23.4%) respectively. This can be depicted in an econometric model. ROEit = -1.352+ .210HRCit + .234HCEit + Đit…..fitted model.

While additional change in human resource cost (HRC) or human capital efficiency (HCE) holding all other variable constant will lead to insignificant decrease or significant increase in gross profit margin (GPM) to the tune of minus five point three percent (-5.3%) or fifty-eight point six percent (58.6%) respectively. This can be illustrated in a model form. GPMit = .321 -.053 HRCit + .586 HCEit + Đit…fitted model.

The same also applicable to asset turnover, any additional change in human resource cost (HRC) or human capital efficiency (HCE) will to a significant increase of 28.9% and insignificant decrease of -13.7% in asset turnover (ATO), this can be fitted thus: ATOit = Đ2 + .289HRCit -.137HCEit +Đit… regression line.

Finally, an additional change in human

resource cost (HRC) or human capital efficiency (HCE) will lead to an insignificant increase of 5.5% and a significant increase of 19.7% in net profit margin (NPM) of selected listed Nigerian companies' financial performance. This can depicted in a model form NPMit = -.956 + .055HRCit + .197HCEit + Đit…line of best fit.

The degree and direction of relationship between return on investment (ROI) and human resource cost (HRC) among the listed Nigerian firm is significant. This shows both variable move in the same positive direction at higher magnitude, that is, as one variable increases the other also increase which is significant; likewise, the degree and direction of relationship between return on equity (ROE) and human capital efficiency (HCE) among the listed Nigerian firms move in the same positive direction but at low magnitude.

The implications of the model stated above that captains of industries or managers should increase human capital investment in order to enhance or improve their organizational profitability and efficiency. Furthermore, managers need to ascertain the level of human resources cost/asset that will yield maximum human capital efficiency that can be seen to be optimal so that under utilisation of employee would be eliminated.

5.2 Conclusion

Human resource valuation surrogates significantly influenced financial performance of selected companies listed on the Nigerian Stock Exchange and companies that place more emphasis on human resource valuation or accounting, and maintaining, treating it as a pure asset will have motivated work force. Furthermore, investments in human resources have positive optimal effects on profitability and activity ratios of firms and as such the firm will have commitment towards development of employees and providing conducive working atmosphere to improve employees' productivity and organisational financial performance.

Capitalizing human resource cost or human asset would positively impact on financial performance of organizations and disclosure as intangible asset in the statement of financial position; will boost the morale of the employees or workers; thereby permitting or allowing the managers, captains of industry, shareholders to make informed decisions about their human assets or capital in order to avoid redundancy of valuable human asset. This is the only through path towards comprehensive business information goal congruence. Finally, human resource accounting information of an organization is crucial factor for decision makers in an era of competitive economy.

5.3 Recommendations

Based on the empirical findings of the study, the following recommendations were submitted:

i. Nigerian listed companies should minimize their human resource cost or human investment in order to create optimality by increase their human capital efficiency.

ii. Human resource cost should include all the expenses incurred on enhancing knowledge, education, expertise and skills of employees. This may involve salaries and wages, training and development, payments for conventions and conferences, dues and subscriptions etc.

iii. Nigerian listed companies should capiltalised their human resource cost to augment their financial performance. Also this will enable the shareholders to know the total human asset value of the organization and the manager can also make accurate, timely and informed decision.

iv. Nigerian listed companies should inculcate the culture of capitalising and reporting all investment on human resource that increase human capital efficiency (productivity) and organizational financial performance, so that, the rate at which asset is utilized to generate income can be determined by management and other stakeholders.

v. Financial Reporting Council of Nigeria and other relevant agencies should create accounting standard for human resource accounting measurement as it would ensure uniformity in disclosures and a reliable comparison of human resource value.

5.4 Contribution to Knowledge

The exceptionality of this study is that the study develops a conceptual model on human resource valuation theoretical framework in order to introduce significant insight from different fields, so that, the concept of human resource valuation can be properly understood. The study estimates the Nigerian listed companies' financial performance

model which is proxy by return on asset (ROI, GPM, ATO, ROE and NPM) in order to establish the validity of the estimated model through F-test, t-test, Durbin Watson and Variance Inflationary Factor (VIF) statistics.

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