

## **THE IMPACT OF HUMAN RESOURCE ACCOUNTING ON THE PROFITABILITY OF A FIRM: EMPIRICAL EVIDENCE FROM ACCESS BANK OF NIGERIA PLC.**

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**ABSTRACT:** *The crux of the study was to examine 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 Access Bank of Nigeria Plc were obtained. Findings revealed that there is a 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). It was also discovered that there was a significant relationship between training cost, development cost and the profit of the bank. 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.*

**KEYWORDS:** Human Resource Accounting, Profitability, Staff training costs, Development costs, number of staff

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## **INTRODUCTION**

Human Resource is a term which refers to the set of individuals who make up the workforce of an organization or a business entity. According to Syed (2009), it comprises the energies, skills, talents and knowledge of people which are, or which potentially can be applied to the production of goods or rendering useful services. The success of any organization depends on the ability of the human resources to effectively and efficiently optimize other resources such as land, equipment and money hence human resources are the greatest assets at the disposal of businesses. This is why the statement “our greatest assets are our people” is declared in most companies’ annual reports (Enofe, Sunday & Ovie, 2013). The work of Bassey and Tapang (2012) points to the fact that human resources have been identified as one of the main sources of competitive advantage by many organizations in today’s economy. Particularly, the private sector organizations are widely diverse and has focused on human resources as having special strategic value for organization development. Abdullahi and Kirfi (2012) maintain that the

quantification of 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 provided human resources. As a result, it becomes imperative to put measures in place to effectively manage people with their needs and expectations to enhance productivity. Therefore, proper appreciation of human resource accounting will enable managers take appropriate decisions regarding investment in human resources. It will also provide comparative information regarding costs and benefits associated with investments in human assets.

It is a truism that information as to human asset has not been noticeable and presented on the financial statement of organizations and it makes it difficult to measure or evaluate the real profit of a firm. The growing trend towards the measurement and reporting of human asset in corporate annual reports is particularly not noticeable in the financial report of corporate organizations. Corporate organizations, by charging expenses of recruitment, training, familiarization and development of human resources to the current period's profit or loss account, understate profits or overstate losses, by not accounting for expenses related to human resources, even when they substantially conceal asset and net worth.

Though the idea of accounting for human resources started many years back, the concept still lacks general acceptability. Many authors and scholars have conducted researches on how humans within an organization can be valued and reported in the financial statements of such organization. Human resource accounting and reporting by corporate organizations is still at the infant stage in Nigeria. One of the companies that have invested heavily in human resources and have applied human resources accounting in one way or the other is Access Bank Plc, amongst others. Access bank Plc in 2007 commenced construction of Access Bank Campus otherwise called Access University of Banking Excellence. These heavy investments to train and retrain quality staff are not reflected in the balance sheet of these various organizations. Indeed, they are charged against revenue for the period to reduce income and by extension the value of the business. The investments by this company in human capital development are normally not reflected in their balance sheets as assets but expensed in the profit or loss account. The major challenges encountered in the recognition of human resources as an asset rest largely on its characteristics, quantification in monetary terms and the method of reporting. Thus the research seeks to clearly elucidate the impact of human resource accounting on the profitability of a firm. To guide the researchers in achieving this objective, the following hypotheses were formulated:

- H<sub>01</sub>: There is no significant relationship between staff training costs and the profit of Access Bank PLC.
- H<sub>02</sub>: There is no significant relationship between staff development costs and the profit of Access Bank PLC.
- H<sub>03</sub>: There is no significant relationship between increment in staff and the profit of Access Bank PLC.

## LITERATURE REVIEW AND THEORETICAL FRAMEWORK

### Theoretical framework

Human resource accounting has been the focus of much academic research since the late 1960's. This may be attributed to the apparent increasing recognition within the business community of the importance major stakeholders attach to socially and environmentally responsible corporate behavior. It is also pertinent to note that modern economies are moving from production-oriented operations to service oriented operations thereby rekindling interest in human resources accounting. (Enofe, Sunday & Ovie, 2013).

A number of empirical studies have been conducted on the issue of human resource accounting in corporate organizations. A number of these studies have highlighted the need to capitalize human capital asset in the balance sheet of companies as against being written off as expenses in the profit and loss accounts (Enofe, Sunday & Ovie.,2013). Hermannson (1964), in his pioneer work concerning the valuation of human assets attempts to place money value on human capital in the balance sheet. Barney (1991), notes that human resources accounting has helped in solving most personnel related problems in corporate organizations. Barney (1991), further asserts that sustainable competitive advantage is attained when the firm has human resource pool that cannot be imitated or substituted by its rivals. Syed (2009), examined the relationship between corporate characteristics and human resource accounting disclosure and concluded that companies with higher profitability intended to disclose more human resource accounting information.

There have been also been some empirical researches on the issues of human resource accounting in Nigeria. Okpala and Chidi (2010) in their work, examined the relevance of human capital accounting to stock investment decisions in Nigeria and opine that corporate success now rests on the ability and knowledge of people who can easily adapt to technological changes and drive organization to attain its goals and objectives. They explain that the function of human capital accounting is to provide information which affords investors opportunity to truly evaluate and understand the complete picture of an organization. Kirfi and Abdullahi (2012), view the practice of human resources accounting in Nigerian companies as more of a mirage than reality as human resource is not reported in financial statements. Kirfi and Abdullahi (2012), argue that the existing accounting practice lack regard to human resource as an asset and have significantly discouraged the use of any or a combination of measurement technique(s) in quantifying human resource let alone reporting it in Nigeria. Bassey and Tarpang (2012), examined the influence of expensed human resources cost (HRC) on corporate productivity and found that expensed human resources (remuneration, protection and dismissal/ compensation) costs are important determinants of expensed human resources cost and does significantly influence corporate productivity.

Likert (1967), stressed that short-term company profits are too often obtained through automatic "system I" methods, which result in the wastage of human resources through neglect of training and development, turnover, reduced co-operation, etc. His argument was that conventional accounting procedures ignore human assets, even though their depletion almost inevitably leads to reductions in profit over the long run. He challenged the accountants to develop measures for valuing the human resources so that changes could be recorded on the scorecard that counts, the profit or loss statement.

In response to Likert (1967), challenges, many accountants conducted researches on how best to measure human resources in monetary terms. Prominent among them are Flamholtz (1999) and Lev and Schwartz (1974). Their contributions led to the suggestion of various methods of valuing human resources such as replacement cost model, stochastic rewards valuation model, historical cost model, competitive bidding method, and capitalization of future benefit. Strauss (1976), cautioned that numerous conceptual and practical problems must be solved before human resource accounting is widely accepted. These problems, according to him, relate particularly to the method of calculating human resource values and to the use to which the resulting data will be put such as its impact on managerial or investor behavior.

### **Transaction cost theory**

This theory assumes that business enterprises choose governance structures that economize transaction costs associated with establishing, monitoring, evaluating, and enforcing agreed upon exchanges (Williamson, 1979 & 1981). Predictions about the nature of the governance structure, an enterprise will use incorporate two behavioural assumptions: bounded rationality and opportunism (i.e. the seeking of self-interest with guile). This means that the central problem to be solved by organizations is how to design governance structures that take advantage of bounded rationality while safeguarding against opportunism. To solve this problem, implicit and explicit contracts are established, monitored, enforced, and revised. For example, organisations that require firm specific knowledge and skills are predicted to create internal labour markets that bind self-interested and bounded rational employees to the organization, while organizations that do not require these skills can gain efficiencies by competing for self-interested and bounded rational talent in an external labour market (Williamson, 1981). Contextual factors, in turn, partly determine whether the types and amounts of skills and knowledge a firm needs are likely to be available in the external labour market, the costs of acquiring them from the external market, the organization's capability for developing them internally, and the costs of doing so.

### **Resource-based theory**

The resource 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). Three types of resources associated with organizations are:

- i. Physical (plant; technology and equipment; geographical location)
- ii. 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)

Human resource management greatly influences an organization's human and organizational resources and so can be used to gain competitive advantage (Schuler & Macmillan, 1984). Presumably, the extent to which human resource management can be used to gain competitive

advantage, and the means of doing so, are partly determined by the environments in which organizations operate. For example, in some industries, technologies can substitute for human resources, whereas in others the human element is fundamental to the business to illustrate contrast labour intensive and knowledge intensive industries. The latter context may be more conducive to the use of human resource management as a means to gain competitive advantage.

### **Human capital theory**

In the economics literature, human capital refers to the productive capabilities of people (Becker, 1964). Skills, experience, and knowledge have economic value to organizations because they enable it to be productive and adaptable; thus people constitute the organization's human capital. Like other assets, human capital has value in the market place, but unlike other assets the potential value of human capital can be fully realized only with the cooperation of the person. Therefore, all costs related to eliciting productive behaviours from employees including those related to motivating, monitoring, and retaining

Katz and Kahn (1978), defined role behaviors as "the recurring action of an individual, appropriately interrelated with the repetitive activities of others so as to yield a predictable outcome." Human resource management is the organization's primary means for sending role information through the organization, supporting desired behaviours and evaluating role performances; it is effective, therefore, when it communicates internally consistent expectations and evaluates performances in ways that are congruent with the system's behavioural requirements (Frederickson, 1986). System requirements are, in turn, presumed to depend on contextual factors such as business strategies and the nature of the industry. Role theory recognizes that the behavioural expectations of all role partners can influence the behaviour of organizational members. By implication, effective HRM helps employees meet the expectations of role partners within the organization (i.e. supervisors, peers subordinates), at organizational boundaries (i.e. customers and clients), and beyond (i.e. family and society). Thus the expectations of these role partners must be incorporated into an understanding of human resource management in context then constitute human capital investments made in anticipation of future returns.

### **Role behaviour theory**

This theory propounded by Katz and Kahn (1978), focused on roles as the interdependent components that make up an organization system instead of using specific behaviours and job performance as the fundamental components. This perspective shifts the focus from individuals to social systems characterized by multiple roles, multiple role senders, and multiple role evaluators.

### **General system theory**

This theory is propounded by Von-Bertalanffy in 1950. In general, system theory unit of analysis is understood as a complex of interdependent parts. An open versus closed system is dependent on the environment for inputs which are transformed throughputs to produce outputs that are exchanged in the environment. Open systems models seldom address organizations or large units within organization. According to Katz and Kahn (1978), the social psychology of organizations is an exception in that it treats human resource management has been developed further by Wright and Snell (1991) who used it to describe a competent management model of organizations. Skills and abilities are treated as inputs from the



environment; employee behaviours are treated as throughout; and employee satisfaction and performance are treated as outputs. In this model, the human resource management subsystem functions to acquire, utilize, retain, and displace competencies. Similarly, Snell (1992) description of human resource management as a control system is based in open systems theory. In a more narrow discussion Kozlowski and Salas (1994) presented a multilevel organizational systems approach for understanding training implementation and transfer.

### **Nature of human resources**

Accountants have not always been in complete agreement as to the concise meaning of the terminology employed. Therefore a brief review of the literature is necessary to discover what criteria are relevant to the concept of an asset.

Human resource has been considered as an internal component of goodwill value as far back as 1932. Traditionally, accounting practice has recognized the goodwill value in the accounts of the surviving entity in a business combination on the premise that the assets of the "purchased" entity should be recorded at their fair market value. The excess of the cost of an acquired company over the sum of identifiable net assets is usually called goodwill (AICPA, 1970). Accounting profession has required that the cost of each type of intangible asset should be amortized by systematic charges to income over the period estimated to be benefited (AICPA, 1970).

Brummet (1970), stated four reasons which contribute to reluctance to measure human resources. The first reason is cultural constraints and taboos that prevent us from associating the money unit to measure people. He stated that "this is unfounded and surely irrational objectives. It may reflect a fear of behavioural reactions which we do not understand and have not given adequate attention". The second reason is people are not owned by an organization and therefore should not be placed on the balance sheet. But he believes that the accountant should monitor those assets which are most significant to their legal ownership status.

Another constraint is the visibility bias, when machines are refurbished. The results can be seen in the form of better production and longer useful life. The costs to refurbish the machines are capitalized and looked upon as an investment. Brummet (1970), feels that there is a hung-up on visibility and that any cost relating the improving human resources (training and development program) will result in future pay-off just as in the case of a machine, those costs should be recognized by capitalization and matched against benefit received.

The fourth reason is the necessity for an interdisciplinary. He believes that interdisciplinary approaches are necessary for solving problems in human resources innovative approaches for providing management with reliable information for decision making. In essence, it may be argued that human resources have not been entirely ignored in current accounting theory and practice. On the other hand, it can also be observed that there are numerous limitations imposed by existing conventional accounting practices for not providing an adequate solution toward explicitly recognizing the human assets and their changes in value in accounting reports.

In general, considerable recognition has already been given to the importance of human assets with regard to evaluate the performance of the entity. Thus, a case can be made for "employee service resources which have potential to provide economic benefits to the firm for more than one period can justifiably be treated as assets" within the traditional accounting framework of an asset (Jaggi, 1976).

### **The concept of human resource accounting**

Accounting is viewed as a child of production. Production can be either the creation of tangible goods or the provision of services to satisfy human wants. The major factors of production are the land, labour, capital and entrepreneur. The two factors, labour and entrepreneur, are the human assets or resources organizations have.

HRA considers human resources as equivalent to other assets in the organization. They require investment over time to make them productive. Such investment relates to the hiring, training, and development costs, which are capitalized and amortized over an assumed probably productive life for the human resource, taking into account attrition and eventual deterioration. The concept of HRA has been defined in so many ways but the basic feature of the system remains the same in every definition.

The American Accounting Association (1973), defined HRA as the process of identifying, measuring and communicating information about human resources in order to facilitate effective management within an organization. This definition considers HRA as the process involving recognition and the quantification of human resources for the purpose of assisting the effective management of an organization. The definition is somehow crude as it is not specific as to what constitute the human resources expenditure and how it is to be recognized.

A more specific definition of HRA is the one given by Flamholtz (1974), which refers HRA as the process, which involves measuring the cost incurred by business firms and other organizations to recruit, select, hire, train and develop human asset. This gives a view as to what expenditure on the human resources should be recognized for valuation and reporting purposes. This definition, in other words, regards HRA as involving the measurement of economic value of people to organizations.

Whereas the above definition of HRA centered on the cost incurred in improving and developing human resources, another definition considers the contribution aspect of human resources. Thus, Friedman and Lev (1974) and Lau and Lau (1978) consider HRA as a method for systematically measuring both the asset value of labor and the amount of asset creation that can be attributed to personnel activities. This definition incorporates the economic benefit attributable to the human resources in addition to recognizing their cost implication.

HRA is also seen as an important aspect of management information system. In this view, Gupta (1991), defines the concept as basically an information system that tells management what changes are occurring overtime to the human 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. This definition regards HRA as an information system capable of assisting the management in effective decision-making relative to the hiring and retention of employees. Therefore, HRA provides a comprehensive look at one method of using human resource cost and value information in the decision-making process.

According to Newman (1999), HRA refers to the measurement of the abilities of all employees of a company, at every level management, supervisory and ordinary employees to produce value from their knowledge and the capabilities of their minds. This definition considers the current growth in the service industry where the knowledge and intellectual capabilities of employees are the key for success. As such, HRA is seen as the wealth of the employees'

knowledge and intellectual capabilities added to the organization thereby making it to earn profit and to succeed.

Looking at the trend of definitions in the field of HRA, as highlighted above, we therefore define the concept as the measurement process which recognizes cost and value of employees in the financial statements of an organization, as an intangible asset, so that the true value of the organization can be established thereby assisting the various users of the financial statements in making their respective decisions.

### **Methods of accounting for human asset**

According to Obara (2013), the major objective of human asset accounting is to clarify the gap between the market and the book value of an enterprise. In doing this, the contribution of a vital factor (personnel) is evaluated. Gebauer (2003), stressed that the procedures can be classified on the basis of two distinctive features-first, the evaluation objects and, second the dimensions of the result. As regards the evaluation object, some methods target the evaluation of individuals; other methods are aligned to observing the evaluation by means of groups. The second distinctive feature that is the dimensions of the result, deals with the determination of monetary and non-monetary values for human capital. The non-monetary methods are directed at the determination of percentage numbers or at a number on a specifically crated scale. The monetary methods on the other hand can be differentiated in cost and value-based methods (Sackman, 1989). The diagrammatical presentation of methods for human asset accounting is shown in figure 1 below.

### **Challenges of human capital and performance**

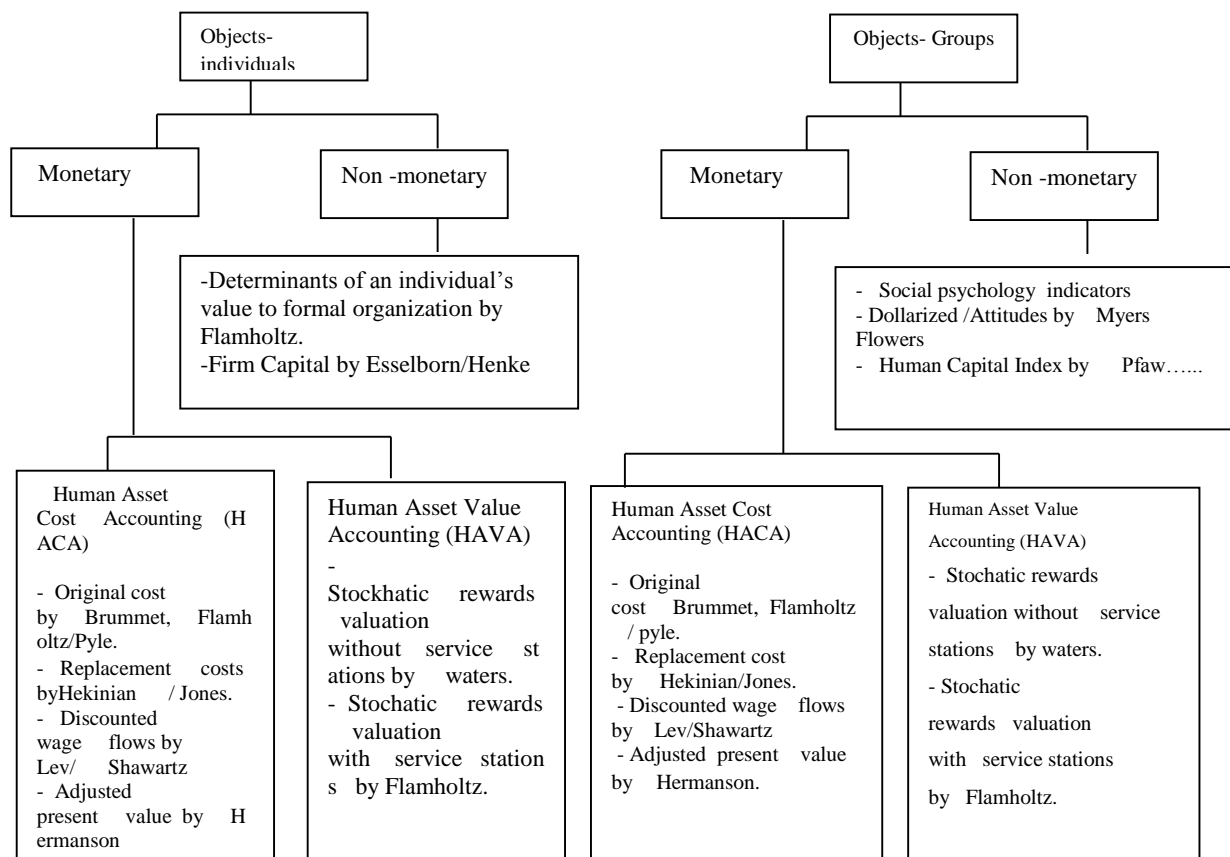
There are a number of problems with asserting a linkage between human capital and human resource initiatives and organizational performance (Bassey & Tapang, 2012).

1. Reverse Causation: Do human capital processes lead to increased performance, or is the alternative explanation equally as likely: that higher performing firms will have more resources to invest in better human capital management? If the causal link is to be established, there is a need to specify the intervening variables between human capital management and performance. "The fact that profit sharing is associated with higher profits can be interpreted in at least two ways: profit sharing causes higher profits, or firms with higher profits are more likely to implement profit sharing. However, if it can be demonstrated that employees in firms with profit sharing have different attitudes and behaviours than those in forms without profit sharing and that these differences also translate into different levels of customer satisfaction, productivity, speed to market and so forth, then researchers can begin to have more confidence in the causal model (Becker & Gerhart, 1996).
2. A good deal of work has emphasized alignment of human resources to organizational strategy at a very high degree of abstraction (e.g. to a cost leadership strategy, or a differentiated strategy). But the firm-specific contexts and contingencies surrounding the organization will make HR alignment much more complex and idiosyncratic, and render generalizations about HR and human capital problematic (Becker & Gerhart, 1996).
3. If human capital is, in a real sense, 'best practice', why is it that some organizations lack human capital processes and yet are successful in their purpose? Or, put another way,



why doesn't everyone adopt human capital principles? A simple answer would be that such firms may be successful now, but the possibility of their sustaining their success is reduced by their failure to implement human capital concepts. This is an empirical question, however, and we agree with Becker, and Gerhart (1996) who state that 'more effort should be devoted to finding out what managers are thinking when they make the Human capital and performance decisions they do.

**FIGURE 1: METHODS OF HUMAN ASSET ACCOUNTING**



Source: Gebauer (2003)

- The range of designs and research approaches in the studies raises problems in terms of developing a coherent body of knowledge. There are a number of problems here. The first is the low level of overlap between the HR measures included by researchers into studies, which makes the accumulation of research in the field difficult. Second, practices that are common across studies are often measured in different ways. For example, 'one study may look at whether a business has performance pay (i.e. yes or no) while another measures the proportion of employees covered by such practices, and another looks at how much is typically paid. Third, the problem of how to measure business performance varies widely, with financial and accounting based measures, lime periods, subjective and objective measures, intermediate outcomes such as commitment and flexibility,

among others, being used in varying ways. Fourth, the unit of analysis differs widely. In some cases the unit of analysis is organizational level, in others, business unit, less often, at the facility level. Fifth, the research method varies from cross sectional surveys, either in single industry or multi-industry, to case studies in multiple firms either in single or multi-industry settings, longitudinal surveys, and mixed methods incorporating elements of the above.

### **Concept of profitability**

Profitability means ability to make profit from all the business activities of an organization, company, firm, or an enterprise. It shows how efficiently the management can make profit by using all the resources available in the market. According to Harward and Upton (2012), profitability is the 'the ability of a given investment to earn a return from its use. However, the term 'Profitability' is not synonymous to the term 'Efficiency'. Profitability is an index of efficiency; and is regarded as a measure of efficiency and management guide to greater efficiency. Though, profitability is an important yardstick for measuring the efficiency, the extent of profitability cannot be taken as a final proof of efficiency. Sometimes satisfactory profits can mark inefficiency and conversely, a proper degree of efficiency can be accompanied by an absence of profit. The net profit figure simply reveals a satisfactory balance between the values receive and value given. The change in operational efficiency is merely one of the factors on which profitability of an enterprise largely depends. Moreover, there are many other factors besides efficiency, which affect the profitability.

### **Human asset treatment and corporate profitability**

The main problem confronting human asset treatment in organizations include the difficulty to measure or value human capital over the last two decades, which has ran into the difficult problem of pricing such assets (Strassman, 1998). But the benefit associated with the exercise has forced many companies to embark on the exercise. Research carried out by Leadbeater and Demos (1999) in the UK revealed that methods used to measure human assets depend on which user group the report is for (Leadbeater & Demos, 1999). They stressed that internal users such as managers prefer the treatments that allow for more information and which allow human asset to be managed more effectively. For such users, a new range of performance measurement and internal corporate reporting which attempts to link financial performance such as cash flow to intangible drivers are sufficient. Examples include: Economic Value Added (EVA) and European Foundation for Quality Model (EFQM). There is another approach as recommended and used by ten Danish and Swedish companies in their HAAT which is capable to show the underlying fundamental that determines a company's future growth and the link between human with the strategies of the companies. In Nigeria, the companies do not have any standard approach to measure or treat human assets in their organizations (Obara, 2013).

The traditional human asset accounting theories also identified three major areas of cost items of human asset investments (Flamholtz, 1973). It therefore means companies could identify those items and separate them from their profit and loss accounts; such treatments would definitely impact on the corporate portability of the firm. The extents to which an organization can practice human asset accounting treatments have strong relationship with its profitability.

## RESEARCH METHODOLOGY

The exploratory research design was adopted in this study. A time series analysis of 16 years was used as population of the study. A non-probability sampling was adopted for this study. It is that type of sampling procedure that represents a group of sampling technique that helps researchers to select units from a population which they are interested in. Such sampling procedure is based on subjective judgment of the researcher rather than random selection. In line with the aforementioned, a convenience sampling technique was specially adopted for this study. A period, 2003-2012 (a period of ten years) was used for proper examination of the impact of human resource accounting on the profitability of Access Bank PLC. This period was chosen based on the fact that there was availability of data that was relevant to this study. Data were gathered from secondary sources and the Ordinary Least Square (OLS) multiple regression analytical technique was used for data analysis. The model built for the purpose of this analysis is given below:

$$RP = f(STC, SDC, NSEP,) \quad (i)$$

Where;

RP = Retained Profit

STC = Staff Training Cost

SDC = Staff Development Cost

NSEP = Number of Staff Employed for the Period

f = Functional Notation

RP = Dependent Variable

STC, SDC, NSEP, = Independent Variables

The Ordinary Least Square for the above model is stated as follows:

$$RP = a_0 + a_1STC + a_2SDC + a_3NSEP + e \quad (ii)$$

Where;

$a_0$  = Unknown Constant to be estimated

$a_1 - a_3$  = Unknown coefficient to be estimated

e = Stochastic error term

$a_1, a_2, a_3, \geq 0$ .

**ANALYSIS OF RESULT AND FINDINGS****TABLE 4.1.1: Selected variables of human resources cost with the profit of Access Bank PLC**

YEARS	RP N000	STC N000	SDC N000	NSEP
2003	337,473	6140	49,931	327
2004	421,537	10,450		316
		42,185		
2005	501,515	16,069	54,085	351
2006	737,149	37,743	64052	484
2007	6,085,439	52,509	89,492	729
2008	16,056,469	96,464		1067
		240,895		
2009	22,885,794	121,089		1411
		191,426		
2010	12,931,441	296,654		1317
		261,663		
2011	13,660,448	1365434		1257
		1,320,307		
2012	15,774,886	1,188,724		2896
		2,510,738		

*Source: Access Bank Annual Reports 2003-2012 and Companies Records from Head Office, Marina, Lagos.*

**TABLE 4.1.2: Regression result on retained profit, staff training cost, staff development cost and number of staff employed for the period**

Variables	Estimated coefficient	Std error	t- statistic	Prob.
Constraint	3.215011	2.920167	1.100676	0.3132
LSTC	0.496415	0.454590	3.091788	0.3168
LSDC	0.894279	0.560279	2.595800	0.1616
LNSEP	2.557310	0.792320	2.127499	0.0180

R –square = 0.899559

Adjusted R - Square = 0.849339

Standard error of regression = 0.686237

F – Statistic = 17.91227

Durbin-Watson stat= 1.991942

*Source: SPSS (E-Version, 2007)*

The data presented in table 4.1.1 was run via E-view 2007 and the results shown on table 4.1.2. The least square multiple regression model was used with three independent variables (STC, SDC and NSEP) and a dependent variable retained profit. The following statistics are taken cognizance of; the coefficient of multiple determination ( $R^2$ ), F – ratio, the standard error of the regression (SER) and Durbin-Watson (DW) statistics.

$R^2$  is used to measure the overall goodness of fit of the regression plane; the higher the  $R^2$ , the better the goodness of fit. To pass the “goodness of fit” test, the coefficient of determination must have a value of at least 50%. The magnitude of the f-statistics is a test of the significance of the relationship between the dependent variable and the independent variables of a model taken together, while Durbin-Watson statistics is used to test for the first-order autocorrelation of the random variable because multiple regression was used, adjusted  $R^2$  or coefficient of multiple regression is also introduced.

From table 4.1.2, the constant value of 3.214179 is autonomous and indicates changes that could take place in the retained profit of Access Bank PLC, if the independent variables (STC, SDC and NOS) are held constant. The  $a_1(0.49)$ , is the coefficient of log of staff training cost (LSTC) which depicts that a percentage increase in the staff training cost could lead to forty nine percent increase in the profit of the organization (Access Bank PLC). More so, the  $a_2(0.89)$  means that a percentage increase in log of staff development cost (SDC) could lead to eighty nine percent increases in the profit of the company. The  $a_3(2.56)$  depicts the coefficient of log of number of staff (LNOS). It indicates that a percentage increase could lead to two hundred and fifty six percent increase in the profit of the organization.

The coefficient of determination ( $R^2$ ) is ninety percent. It indicates that the independent variables (training cost, development cost and number of staff) capture approximately ninety percent of the total variation (i.e. one hundred percent) in the dependent variables (profits). That is, the independent variables explained ninety percent out of the one hundred percent variation that can occur in the dependent variable. The remaining percent (i.e. ten percent) represent the unexplained percentage and could be accounted for by other independent variables not built in the regression model. In addition to the co-efficient of determination is the adjusted  $R^2$ . This means the coefficient of determination ( $R^2$ ) if adjusted from ninety to eighty four percent could create more room or chances for other independent variables in the regression model, hence increase the line of fit of the model. Testing for the overall significance of the model, the ANOVA on the F-statistic is used. The high significance of F-statistic value of 17.91472 confirms the fact that the high predictability of the model did not just occur by chance. It actually confirms that the model fits the data well. To test for the individual statistical significance of the regression parameters, the F-statistic of the respective variables were used. Considering their probability values which were automatically generated during the computation process by the computer software. The constant term is significance at five percent level. The a priori expectations about the signs of the parameter estimates are confirmation to economic theory. Here, all the variables entered the model with positive signs. To test for the autocorrelation in the residual, the calculated Durbin-Watson statistic is used to compare with the table DW value. The decision rule for no autocorrelation in the residuals of the model is that the calculated DW value must be greater than DL. Given that, the calculated DW statistic = 1.991942, dl = 0.376 and du = 1.414 Since K = 4 variables and n = 10 years and at five percent level of significance, it can be concluded therefore that the model is free from autocorrelation of the residual.



In testing the hypotheses earlier formulated, it is imperative to restate the hypotheses in both null and alternative form:

H<sub>o1</sub>: There is no significant relationship between staff training cost and the profits of Access Bank PLC

H<sub>a1</sub>: There is a significant relationship between staff training cost and the profits of Access Bank PLC

To test for significant relationship of each independent variable, the T-statistic was used. The decision rule was that if T- calculated is less than the T-table value then the null hypothesis should be accept otherwise rejected and accept the alternative. At five percent level of significant, the table value is 2.365. Thus, since the T-calculated (3.09) is greater than the table value (2.36), the null hypothesis is rejected and the alternative accepted. We therefore conclude that there is a significant relationship between staff training cost and the profits of Access Bank PLC for the period of study.

H<sub>o2</sub>: There is no significant relationship between staff development cost and the profits of Access Bank PLC.

H<sub>a2</sub>: There is a significant relationship between staff development cost and the profits of Access Bank PLC.

For hypothesis two, the T-calculated is 2.59 hence it is greater than the T- table value (2.36). Based on this, the null hypothesis is rejected and the alternative accepted. We also conclude that there is a significant relationship between staff development cost and the profits of Access Bank PLC for the period of study.

H<sub>o3</sub>: There is no significant relationship between increment in staff and the profits of Access Bank PLC

H<sub>a3</sub>: There is a significant relationship between increment in staff and the profits of Access Bank PLC.

For hypothesis three, the T-calculated is 2.12 hence it is less than the T- table value (2.36). Based on this, the null hypothesis is accepted and the alternative rejected. We can conclude that there is no significant relationship between staff development cost and the profits of Access Bank PLC for the period of study.

In addition to T-statistic, an overall test was carried out to observe the significant effects of all independent variable on the dependent variable. F-table was ascertained using the degree of freedom; K: n- (K+1). Where k represent the number of independent parameters (i.e. three) and n represent number of period use for the study (i.e. Ten)

Degree of freedom = 3:10 - (3+1)

$$= 3:6$$

From the F- distribution table, with five percent level of significance, 3:6 equal 8.04. This result was compared to the calculated F ratio so as to either accept the null hypothesis or reject it. Since the F – ratio calculated (17.91) is greater than the table value (8.04), we therefore reject

the null hypothesis and accept the alternative and conclude that there is a significant effects of human resource costs towards attainment of Access Bank corporate profit.

### **Summary of findings, conclusion and recommendations**

Based on the empirical analysis, the regression results showed that the estimated coefficients of the regression parameter all have positive signs. The implication of these signs was that Access Bank Plc training cost, development cost and number of staff are all positively related to the profit of the bank for the period of study. This means an increase in training cost, development cost and number of staff could lead to increase in profit of the Bank. This confirm to economic criterion, and could be supported by the works of Enofe, Sunday, & Ovie (2013), they opined that their greatest assets are the employees. However, the third parameters (number of staff), do not show a significant effect on the profit. This indicates that profit level does not depend on the rate of its employees rather other assets.

An overall test was carried out to observe the significant effect of all independent variable (training cost, development cost and number of staff) on the dependent variable (profit). Result concluded that there is a significant effect of human resource costs towards attainment of Access Bank corporate profit. In line with this, it is justified that three independent variables have a proportionate impact in predicting the profitability of the firm. The result of the  $R^2$  in this study also has a justification for this. It is therefore concluded that, 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 make work together towards achieving its goal. Organization exists for a particular goal. The goal cannot be realized except people are trained and developed. Based on the summary of findings, the following are recommended;

1. Organization should enhance the retention of education and training on staff so as to avert wastage of knowledgeable investment.
2. Accounting standard board should incorporate their accounting standard for the valuation and disclosure of human resource accounting.
3. The company law should require companies to attach information about the value of human resource and the result of their performance during their accounting year in notes and schedule.
4. Finally, it is apposite to suggest that prospective researchers in this area should broaden their study to cover a wider range of human resource Accounting.

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**APPENDIX**

## Appendix 1: Regression Result

Dependent Variable: LPRT

Method: Least Squares

Date: 03/02/15 Time: 13:24

Sample: 2003 2012

Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.215011	2.920167	1.100676	0.3131
LSTC	0.496415	0.454590	3.091788	0.3167
LSDC	0.894279	0.560279	2.595800	0.1616
LNSEP	2.557310	0.792320	2.127499	0.0180
R-squared	0.899572	Mean dependent var		15.08550
Adjusted R-squared	0.849358	S.D. dependent var		1.767965
S.E. of regression	0.686194	Akaike info		2.373863
Sum squared resid	2.825176	criterion		2.494897
Log likelihood	-7.869313	Schwarz criterion		2.241089
F-statistic	17.91472	Hannan-Quinn		1.991942
Prob(F-statistic)	0.002131	criter.		
		Durbin-Watson stat		