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Accounting For Human Asset In The Statement Of Financial Position: How Realistic Is The Lev & Schwartz Model?

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Abstract

Human resource accounting (HRA) is defined as the process of identifying, measure and communicating information about human resources in order to ensure effective and efficiency in the management of the organization. It also involves accounting for expenditure relating to the human asset in an organization as compared to the traditional accounting which merely expense the human resources cost and reduce profit which affects the value of the organization. This causes the need for treating human asset as intangible in the statement of financial position of organization. The Lev and Schwartz (1971) economic valuation model was extensively review to see if the model is realistic in valuing human asset to be placed in the statement of financial position. This study using Zenith Bank Plc as a case study adopted the Lev and Schwartz‘s model to determine the value of human resources. The simple linear regression was used to analyse the impact of human resources in the statement of financial position using investment in human capital on the profitability and capital employed. Secondary data obtained from the annual reports and accounts of Zenith Bank Plc from 2008 – 2012 was analysed. It was discovered that human resource has a positive effect on the profit and capital employed by the bank. This is in support of Akintoye (2003) that published financial statement may be incomplete without accounting for human resources. It was recommended that the likely stay of an employee in an organization should be predetermined at the point of employing the employee and also that the weaknesses of Lev and Schwartz model should be addressed so that the model could be used to estimate the human resources value to be capitalized and amortised.

Key words: *Human asset, Statement of financial position, efficiency, Economic valuation model, capitalization*.

Introduction

Human asset is the greatest asset of any organization. This seems to be a true statement but this statement is not often reflected on the statement of financial position of an organization.

The success or otherwise of an organization depends on how best the scarce physical resources are utilized by the main asset which is human resources. Starting from the classical economist to the modern human capital economist such development is considered to be a continuous process. Human asset is one of the ‘M’ that is associated with the 4M’s associated with an organization. These 4M’s are money, machine, material and men. The most interesting thing is that the first three are recognized in the statement of financial position of an organization while the fourth 'M' (Men) is absent or omitted in the statement of financial position.

The asset of an organization is classified into tangible, intangible and wasting assets. The tangible asset refers to the physical assets which are presented on the statement of financial position. These include plant and machinery, investment in securities, inventories, cash and cash equivalent and bank balance, marketable securities etc.

Intangible assets as defined by the International Accounting Standard (IAS) 38 (1998b:7) as "an intangible asset is an identifiable non – monetary asset without physical substance held for use in production or supply of goods and services, for rental or other or administrative purposes". The same standard defined asset asa resources controlled by a firm as a result of past event and as a resource from which future economic benefits are expected to flow to the enterprise.

IAS 38 requires that for an asset to be recognized as intangible asset, it should be identifiable in a way that it is not possible to distinguish it from goodwill. The standard went further to say that the organization should have sufficient control of the asset in order to meet the definition of intangible asset. Based on this definition, one can see that human resources is identifiable and it is possible to separate it from goodwill, thus it can be recognized as intangible asset.

Conventional accounting does not attempt to quantify the benefits of expenditures on human resources cost while human resource accounting attempts to measure these benefits. It can only recognize the value of human resources as part of goodwill. It treats them as an expense of the period and charges them against the current period revenue which can lead to a distortion of income measurement. The result of treating human resources cost as expenses is that expenses are overstated and current profit is understated by omitting human asset which is the most important asset, it can be said that investment base will be undervalued and this will distort return on investment measures.

Hermanson (1964,1986) attempted the inclusion of figures on human capital in the balance sheet, which eventually became Human Resource Accounting. This he did in an attempt to quantify the value of human capital of an organization. He went further in 1986 to states that the amount of future wages payable represent a liability while human resources (operational asset) are assets in the balance sheet.

According to Brummet (1970), there should be capitalization of the firm's training and development of people and they should be treated as assets for the purpose of human resource

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accounting.Brummet said further that the amount so capitalized are to be shown on the balance sheet under the heading human asset as distinguished from physical assets and that the human asset should be amortised and written off according to the conventional accounting method.

American Accounting Association (1973) defined Human Resource Accounting (HRA) as ‘the process of identifying and measuring data about human resources and communicating this information to the interested parties’. Stephen Knauf (1983) also defined human resource accounting as ‘the measurement and quantification of human organizational inputs such as recruiting, training, experience and commitment.

Eric G. Flamholtz also defined HRA ‘as representing accounting for people as an organizational resource. It is the measurement of the cost and value of people for theorganisation’. This study, tends to access the effect of accounting for human asset in the statement of financial position and looking at how realistic the Lev and Schwartz model (1971) would be in valuing human resources cost.

Theoretical Framework

Human Capital Theory

The human capital was first put forth by Schultz (1963) to explain the relationship between individual investments in education and training, and income differentials. This theory assumes that the individual is rational and methodical, seeks to maximize his lifetime earnings by making individual decisions to invest his resources in education. The theory also assumes a casual link between education, productivity and increases in earnings. Essentially, human capital theory assumes that the stock of human capital is directly correlated to productivity, that is, increase in the stock enhances productivity. The individual worker is compensated for increase in productivity. Since investments in education and training are direct avenues to increasing the stock of human capital, the individual will make investment to the present value of the increase in income stream they produce. Investments will be undertaken if the present value exceeds the associated costs and the rate of return is greater than that from other available alternatives.

Also, Mincer (1958) and Becker (1964) extended the human capital approach significantly when they incorporated the provision of training. Specifically, they introduced the fundamental distinction between the provision of general and specific training by the employer. General training refers to non – specific generic training that builds skills which are portable from one employer to another. This form of training is clearly desirable for the employee because it enhances his stock as well as his mobility. Employers need workers who have either received the desired general training from another employer, or will receive it from them. For the former, employers are willing to offer better employment terms to attract them. For the latter, however, the general training is financed by reduced earnings during the training and contractually obligated periods. Subsequently, the employer will need to offer improved terms to match other potential employers to retain the services of their trained employee. Employers can also offer general training as a recruitment tool. Specific training refers to specialized skills training that provides employees the skills which the employer requires for the organization's unique operation. Employers will provide this form of training to the extent that productivity is enhanced. Therefore, if the cost of education and training which are to increase productivity of the workers are taken as investment like the tangible assets which are reflected on the balance sheet, it is also important to reflect the cost of investment in recruitment and selection, training and development on the balance sheet as a capital item. It is important to know that this theory was based on Lev and Schwartz's model.

Models of Human Resources Accounting

There are a number of methods suggested for the valuation of human assets and most of these methods are based on the valuation of both physical and financial assets. According to the methods Human resource accounting can be broadly classified as follows;

A. Cost Based Methods:Cost is a sacrifice incurred to obtain some conceptual benefactor service. All costs have two piteous. These are the expense and the asset portions. The expense portion is that which provides benefits during the current accounting period (usually the current financial years), whereas the asset portion is that which is expected to give rise to benefits in the future Flamholtz (1999). Two types of costs are of special importance to human resources accounting. These are original or historical cost and replacement cost.

I. Historical Cost Method:This approach is developed by Brummet, Flamholtz and Pyle (1968). This method measures the organization's investment in employees using five parameters which are:

a) Recruiting, acquisition, formation - training and familiarization, information training and information familiarization and experience and development.

II. Acquisition Cost: This is the expense incurred on recruitment, selection; entire cost is taken into consideration including those who are not selected.According to Brummet, Flamholtz and Pyle (1968), this method suggests that instead of charging the costs to profit and loss account, it should be capitalized in the balance sheet accounting. The process of giving, any status of asset to the expensditure item is called capitalization.

Under this method the actual cost incurred towards recruitment, training and developing human resource of the organization are capitalized and amortized over the future expected useful life of the human resources. Certain part of costs will be written off in proportion to the income of the future years which those human resources will provide services. When the human assets are prematurely liquidated, the amount not written off is charged to income of the year, if the human resources is considered to be longer than expected, revisions are to be effected in the amortization schedule. The additional cost incurred in training and developing is capitalized and is amortized over the remaining working life of the employee. The improved value is investment in human assets.

III. Replacement Cost: According to Likert (1985), replacement cost include recruitment, selection, compensation and training cost (including the foreign income during the training period). This is a measure of cost to replace a firm's existing human resources. Human resources are to be valued on the assumption that a new similar organization has to be created from scratch and the cost of the firm is calculated if the existing human resources were required to be replaced with other persons of equivalent talents and experience.

As against historical cost methods which take into account the actual cost incurred on employees, replacement cost takes into account the notional cost that may be required to acquire a new employee to replace the present one. Replacement cost is generally much higher than the historical cost. This replacement cost is a much better indicator than the value of human assets although it may present certain operational problems.

The following are the cost incurred by an organization in replacing a terminated employee as defined by replacement cost: communication of job ability, pre-employment administrative functions, interviews, testing, staff meetings, travel cost and employment medical examination

IV. Opportunity Cost Method: Heckiman and Jones (1967) first advocated this approach. This is also known as "Market Value Method". This method is based on the economist's concept of 'opportunity cost'. Opportunity cost is the value of an asset when there is an alternative opportunity of using it. In this method there is no opportunity cost for those employees who are not scarce and as such only scare people should form part of the value of human resources. For an employee to be scarce, it means that the employment in the division of an individual or group denies this kind of talent to another division. The opportunity cost of an employee is calculated on the basis of offer made by another department for an employee working in this department.

The bid price should then be included in the investment base and this method will only be feasible in large organizations with a sufficient numbers of investment centers and managers to ensure a fair bidding. Furthermore, if employees can be readily recruited from outside the organizations, then there is no opportunity cost as the resource is not scarce (Brummans and Langendijk, 1998).

V. Standard Cost Method:This method was suggested by David Watson (n.d). In this method of standard cost, employees of an organization are categorized into different groups based on their hierarchical positions. Standard cost is fixed for each category of employees and their value is calculated. This method is simple but does not take into account differences in employees put in the same group of recruiting, hiring, training and development per grade of employees as determined year after year. The value of human resources for accounting purposes will be standard cost to be arrived at for all human beings employed in the organization.

B. Monetary value based method: According to this method, the value of human resources of an organization is determined according to their present value to the organizations. For determining the present value, a number of valuation models have been developed.

1. Lev and Schwartz's Model (Present Value of Future Earnings)**:** This model has been developed by Lev and Schwartz (1971). According to this model, the value of human resources in a capital embodies in a person who is "y" years old is the present value of his/her future earnings from employment and can be calculated by using the following formula:

$E\ (Vy) = \sum Py\ (t+1))\ \sum I\ (T)/\ (ItR)^{t-y}$

The basic principle of Lev and Schwartz's model is to compute the present value of the future direct and indirect payments to their employees as a measure of their human resource value. This model by Lev and Schwartz is basically oriented towards measuring changes in the employees' value rather than employees' gains from the employees. Unless the employees' payments are directly linked to employee's productivity or the company performance, the changes in the value of employees will not reflect the changes in the employee's contribution. Rao (1993) pointed out that under the Lev and Schwartz's model, the value of human resources will be more or less increasing, even if the organization continuously incur losses/decrease in profitability. (human resource accounting. (*Wikipedia, the free encyclopedia*)

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According to Flamholtz (1985), the value of these human resources is ascertained as follows:

(i) All employees are classified in specific groups according to their age and skill

(ii) Average annual earnings are determined for various ranges of age

(iii) The total earnings which each group will get up to retirement age are calculated

(iv) The total earning calculated as above are discounted at the rate of cost of capital. The value this arrives at, will be the value of human resources.

(v) The above formula has been suggested for calculating the value of an employee according to this model:

Where, V = the value of an individual r years old.

y = the individual's annual earnings up to the retirement

t = retirement age

r = present age of the employee

R = discount rate

2.<u>Flamholtz Model (Stochastic Reward Valuation Model):</u> This model was suggested by Flamholtz (1971). The movement of people through organizational "states or roles" is called stochastic process. The stochastic reward model is a direct way of measuring a person's expected conditional value and expected realizable value. It is based on the assumption that an individual generates value as he occupies and moves along organizational roles, and renders service to the organization. It presupposes that a person will rise from one state in the organization, to another, during a specified period of time.

In this model, exit is also considered to be a state. The use of this model necessitates the following information:

i. The set of mutual exclusive states that an individual may occupy a role in the system during his/her career;

ii. The value of each state, to the organization

iii. Estimates of a person's expected tenure in the organization.

iv. The probability that in future, the person will occupy each state for the specified time

v. The discount rate to be applied to the future cash flows. A person's expected conditional value and expected realizable value will be equal, if the person is certain to remain in the organization, in the predetermined set of states, throughout his expected service life (Flamholtz, 1999)

3. <u>Morse Model (Net Benefit Model):</u> This model was suggested by Morse (1973). According to this model, the value of human resources is equivalent to the present value

of net benefit, derived by the organization from the source of its employees. This method involves the following steps:

i. The gross value of services to be rendered in future by the employees in their individual as well as their collective capacity is determined
ii. The value of future payments (both direct and indirect) to the employees is determined
iii. The excess of the value of future human resources (as per 1 above) over the value of future payments (as per 2 above) is ascertained. This as a matter of fact, represents the net benefits to the organization on account of human resources.
iv. The value of the net benefit is determined by applying a predetermined discount rate (cost of capital). This amount represents the value of human resources to the organization.

B. Non – Monetary Value based method: The non-monetary methods for assessing the economic value of human resources also measure the human resources but not in money terms. They rely on various indices or ratings and these methods may be used as surrogates of monetary methods and also have a predictive value. It also refers to a simple inventory of skills and capabilities of people within an organization or to the application of some behavioural measurement technique to assess the benefits gained from the human resources of an organization.

1.LikertModel **:** This model proposes casual interviewing, and result variables, which determines the group's value to an organization. Casual variables are those which can be controlled by the organization. These variables include managerial behaviour and organizational structure.

Changes in the key dimensions of organization can be used as dependable indicators for forecasting future changes in productivity and financial performance.

For computing a monetary estimate of the expected change in the value of human organization, the following, steps are suggested:

i. Measure the key dimensions of human organization, using a likert scale at specified time periods. There are in non-monetary measurements.
ii. The scaled responses to questionnaire items called "scores" are then standardized by statistical methods to take into account the degree of variability of the set of responses. This is done for responses in each time period.

iii. The difference between two standardized scores from one period to the next is them calculated. This difference (called delta) represents the change is an index of specified dimensions of the human organization.

iv. From present changes in dimensions of the human organization, the expected future change in end result variables is estimated. Specifically, for a given variable, the delta is multiplied by co-efficient or circulation between that variable and the end result variable. This provides an estimate in standard scores of the anticipated change in the end result variable attributable to a change in the human organizational dimension believed to cause that change.

v. Lastly, the standard scores are converted into the measuring monetary units for the end result variables.

Likert points out, that changes in the productive capability of a firm's human organization cannot be assessed correctly, unless periodic measure memo of casual and interviewing dimensions of that organization are taken regularly. Current profits and losses reports often encourage us to believe that changes are occurring when profits increase, it is productive, but steps taken to maintain earnings or prevent losses may actually, result is a decrease in the productive capability of the human organization.

4. Flamholtz Model:According to Flamholtz (1999), the value of an individual is the present worth of the services that he is likely to render to the organization in future. As an individual moves from one position to another at the same level or at different levels, the profile of the services provided by him is likely to change. The present cumulative value of all the possible services that may be rendered by him during his association with the organization, is the value of the individual which value is uncertain and has two dimensions. The first is the expected conditional value of the individual. This is the amount that the organization could potentially realize from the services of an individual during his productive service life in the organizations. It is composed of three factors namely:

i. Productivity or performance (set of services that an individual is expected to provide in his present position).

ii. Transferability (set of services that he is expected to provide if and when he is in a different positions at the same level).

iii. Promotability (set of services that are expected when the individual is in higher level positions).

These three factors depend, to a great extent, on individual determinants like activation level of the individual i.e. his motivational, energy level and organizational determinants like opportunity to use these skills or roles and the reward system.

The second dimension of an individual value is the expected realizable value, which is a function of the expected conditional value and the probability that the individual will remain in the organization for the duration of his productive service life. Because individuals are not owned by the organization and are free to leave, it is therefore important to include the probability of their turnover.

5. PekinOgan (Certainty Equivalent Net Benefit Model)**:** This approach was suggested by PekinOgan (1976). This as a matter of fact, is an extension of "net benefit model" as suggested by Morse. According to this model, the certainty with which the net benefits in future will accrue should also be taken into account, while determining the value of human resources.

This model requires determination of the following:

i. Net benefit from each employee as explained under 'net benefit model".
ii. Certainty factor at which the benefits will be available.
iii. The net benefits from all employees multiplied by their certainty factor will give certainty equivalent net benefits. This will be the value of human resources of the organization.

6. Giles and Robinson's Human Asset Multiplier Method: This method is developed in 1972 and it was sponsored by ICMA and IPM. The valuation of human resources should be made in the same way as other business assets on a going concern basis.

C. Jaggi and Lau Model: Jaggi and Lau valuation is on a group basis rather on individual basis. Group means homogenous group of employees who may not be necessarily working in the same department. It might be difficult to predict an individual's future period stay and chances of promotion, but on a group basis, it is easier to ascertain the future period of services, chances of promotion and those who are likely to leave the organization during each of the forthcoming period. It is assumed that the pattern of movement is likely to remain constant over time and the probabilities determined for the period can be extended to future periods

D. Chakraborthy Model (Aggregate Payment approach): This model was suggested by Chakraborty in 1976. He has valued the human resources as aggregate and not on an individual basis. He suggested that managerial and non-managerial manpower can be

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evaluated separately. The value of human resource on a collective or group basis can be multiplied by the average tenure of employment of the employees in that group and that is the investment in human resource.

He stated further, that the average annual salary payment for the next few years could be found out from the salary grade structure and promotions schemes of the enterprise. The recruitment, including selection, development and training costs of each employee could be recorded separately and considered as deferred revenue expenditure to be written off over the expected average tenure of the employee in the organization. The deferred portion should be shown in the financial statement of the organization. In the case of permanent exit on account of death, retrenchment and retirement, then the balance on the deferred account will be written off against the income of the year of exit itself.

For the purpose of funding the present value of estimated payments, the expected average after tax return on capital employed over the average tenure period should be taken as the discount rate. As for disclosure of accounting information on human resources as an asset, he has suggested including human assets under investments in the financial statement of the organization.

E.Other Models: Scarpello and Theeke (1989), suggest that until the advocates of human resource accounting demonstrate a valid and generalizable means for defining human resource value in monetary terms, researchers should abandon future consideration of possible benefits from Human Resource Accounting. Tiwari (2009), on the other hand, proposed two models which was a modification to the Lev and Schrwatz model for valuing human resource accounting. They are categorized into:

i. Method for employee who are solely for organization such as MD, CEO etc
ii. Method for employees who are not solely for organization valuation should contain three parts in both methods which are as follows:
    a. Real capital cost
    b. Present value of future salary and wages payment
    c. Performance evaluation

Real capital cost means that all the capital cost such as training cost should be capitalized and written off equally in estimated service period by entry but at the time of death or leaving of the company, the employees' whole amount should be charged to the profit and loss account in the financial statement. The model also uses valuation principles of Lev and Schwartz model.

Dobija (1998) proposes an alternate model for capitalization, where the rate of capitalization is determined through natural and the social conditions of the environment. Utilizing a component interest method, this model takes into account the three factors of living, the capitalized value of the cost of professional education, and the value gained through experience.

Turner (1996) proposed the use of the present value of the value added by enterprises and measures assets by the four methods of historical cost, current cost, realizable value and present value.

Cascio (1998) proposed a method of measuring human capital based on indicators of human capital innovation, employee attitudes and the inventory of knowledgeable employees. According to this method, innovation commands a premium and therefore needs to be measured, for example by comparing gross profit margins from new products to the profit margins from old products. Employees' attitudes predicting customer satisfaction and retention are important indicators of human capital and therefore need to be measured, as well as measures of tenure, turnover, experience and learning.

Review of Empirical Studies

Human Asset Accounting and Financial Reporting

The value of an organization before now, as reflected by the traditional balance sheet (Statement of Financial Position), was viewed as a sufficient reflection of the organization's asset. Okafor and Jeroh , (2010). As the knowledge economy is growing, this traditional way of valuing organization has being causing undervaluation of the value of the organization, so the recognition of human asset on the statement of financial position is an increasing important part of an organisation's value.

According to Kirfi and Abdullahi (2012), human capital accounting is the process of identifying and reporting the investments made in the human resources of an organization that are presently not accounted for in the conventional accounting practice. This involves the measuring of costs that is incurred by organization in recruiting, selecting, hiring, training and developing human capital.

The impact of human resource costs on reported profits may lead to decisions which according to Avazzadehfath and Raisashekar (2011), are influenced by tax considerations towards reporting larger or smaller profits for a period. The meaning of this is that profits reported in financial statement organization to a large extent affects the decisions of users of the financial statements. This may have accounted for the inclusion of human capital of

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Okafor and Jeroh (2010), that the inclusion of human capital costs in financial statement will affect the decisions of investors. It is important to note that accounting for the value of human capital guarantee transparency in financial reporting.

Akintoye (2003, 2012), discovered that the published financial statements may be incomplete without accounting for the human resources. The main cause of discrepancy between book value and market value of corporate organization is the conventional treatment of human development expenses in profit and loss account and in the balance sheet and that the discrepancy could be reduced considerably by adopting constructive treatment of excluding human asset value from the profit and loss account and including human development investment in the balance sheet of corporate organization Chukwuma (2013).
Ijeoma et al (2013), opined that human resource accounting will have a significant improvement on the financial position of banks in Nigeria.

HRA Information disclosed by some companies

Name of Organisation	Year of Including HRA	Model used	Discount rate
R.G. Barry Corporation	1969	cost based	
BHEL	1973 – 1974	Lev & Schwartz model	12%
SAIL	1983 – 1984	Lev & Schwartz model With some adjustment as Suggested by Flamholtz& Jaggi and Lev	14%
MMTC	1982 – 1983	Lev & Schwartz model	12%
ONGC	1981 – 1982	Lev & Schwartz model	12.25%
NTPC	1984 – 1985	Lev & Schwartz model	12%
INFOSYS	1995 – 1996	Lev & Schwartz model	12.96%
	2006 -2007	Lev & Schwartz model	14.97%

Application of Lev and Schwartz Model (1971)

The Lev and Schwartz model (1971) aims to determine the value of human capital associated with the organization. According to Lev and Schwartz (1971), Irving Fisher, one of the founding fathers of the theory of human capital, human capital does not distinguish non human capital. However, to Lev and Schwartz (1971), there was a fundamental difference between the two types of capital; the ownership of human capital is transferable, while human capital is not traded in the market. For non-human capital, we can infer its value by the observation of market values that reflect the present value of future outcomes for the parties dealing in the market while human capital, thus cannot be done because it is not traded in the market.

Lev and Schwartz (1971) proposed that the value of human capital is determined as follows:

1. All employees are classified into specific group according to their age and skills.
2. The average annual compensation is determined for different age groups.
3. The calculation of total compensation that each group mentioned in point 2 will be up to retirement age.
4. The total remunerations will be calculated at a rate discounted cost of capital. The value arrived at will be the value of the asset/human capital.

The definition of wealth as a source of income inevitably led to the recognition of human capital as one of the several forms of wealth such as money, securities and physical capital. In this model, human capital is treated like other forms of earnings assets and this is an important factor explaining and predicting the future economic growth of the company. It is worthy to note that Lev and Schwartz model (1971) uses an earnings profile, which is a graphical mathematical representation of the income stream generated by a person reaches retirement age, productivity declines as a result of technological obsolescence and health deterioration.

This model helps to know how the human asset has appreciated over the years or they have not appreciated. Also, the model helps company applying it to know if they could make use of the information internally to compare the performance and productivity of employees in various departments. Again, it helps to decide the compensation of employees. The company ensured that it compensated each employee according to his/her net worth. Another benefit of this model is that it helps to identify and retained valuable employees. It also help the organization to take managerial decisions based on the availability and the necessity of human resources.

Criticism of Lev and Schwartz Model (1971)

The Lev and Schwartz (1971) model has the following criticism:

1. The model implies that the future work condition of the employee will not be changed over the span of his working life, but will remain the same as at present which is not realistic except the employee does not undergo any training and development.

2. The approach does not take into account the possibility that the employee will withdraw from the organization prior his death or retirement. The model forgot to note that the employee can leave the any company at anytime which the model failed to consider.
3. It ignores the variable of the career movement of the employee within the organization. Human beings are dynamic in nature and can decide to change career at anytime. This will affect the model because the model did not consider this.
4. Also, the model does not take into account the role changers of employee which is not realistic as a personnel manager can become a chief legal officer which will was not considered by the model. This could be due to promotion, transfer, etc
5. The expenses of training and development incurred by the company are not considered by the model.
6. The model assigns more weight to averages that to the value of any specific group or individual.
7. The model made use of cost of capital which is subjective and can affect the result by making it too ambiguous. This is making the model to be realistic.

Methodology

This study employed secondary data obtained from Zenith Bank Plc annual report for the period of five years covering 2008 – 2012. The Lev and Schwartz model of present value of future earnings method was used to analysis the value of human resources in Zenith Bank Plc.

The following assumptions were made for the purpose of this study:

1. That the employee will stay for five years in the bank with a constant salary.
2. The cost of capital was assumed to be 10%.
3. An analytical technique was also employed to test the impact of human asset on the profit and capital employed by the bank using simple linear regression equation.

Model Specification

The independent variable is total asset (human asset) while the dependent variables are profit and capital employed (ROA)

The functional relationship:

Y = f(A), Y = (NP, ROA)

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A = Total Asset(Human Asset)

Data Presentation and Analysis

The data that was used in this study was obtained from the annual report of Zenith Bank Plc over a period of 2008 – 2012. The variables used in this study are total asset which includes human asset discounted to present value and amortised over the period of five years, capital employed for the period covered and profit after tax. The total asset on the profit and capital employed by the bank, the summary of the regression model from using the linear regression analysis is shown in the table

Table 1 model summary on profit

R	0.997
R^2	0.996
Adjusted R	0.995
Standard error of estimate	20235.678
F. value	896.595
DF	4

Source: Zenith Bank Plc annual report

Result according to table 1 shows that the coefficient of R and co – efficient of determination R^2 measures the explanatory power of the simple linear regression model. From the result, there is a high coefficient of correlation (99.7%) between the total asset and the profit earned after tax. This implies that the variables are useful in explaining the impact of total asset (human asset inclusive) on profit. There is also a high significant coefficient determination (99.6%). The standard error estimate has a value of 20235.678 and the f – value is significant at 5% level.

Table 2 model summary on capital employed

R	0.966
R^2	0.935
Adjusted R	0.915
Standard error of estimate	4261080.716
F. value	44.657
DF	4

Source: Zenith Bank Plc annual report

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From the table above the result shows that there is a high coefficient of correlation R (96.6%) between the total asset and the capital employed. This implies that the variables are useful in determining the impact of total asset (human asset inclusive) on capital employed. There is also a high significant coefficient of determination (93.5%). The standard error estimates has a value of 4261080.716, the f – value is calculated to be 44.657 and f – value is significant at 5% level. Also, the rate of return was used to analysis the difference of return on asset when human resource accounting was adopted to return on asset when it was not adopted.

The return on asset is calculated thus:

$$\frac{\text{Net Profit after taxes}}{\text{Total assets}}$$

Table 3 Return on Assets

Year	SFP With HA	SFP Without HA
2012	2.66%	2.56%
2011	2.75%	2.65%
2010	4.02%	3.78%
2009	4.56%	4.31%
2008	4.32%	4.09%

Source: Zenith Bank Plc annual report

From the above table, the rate of return when human asset value was inputed in the annual report was greater than the rate of return when human asset value was not inputed in the annual report from 2008 – 2012. This implies that the use of human resource accounting in the annual report results in effective and efficient use of the bank available assets to generate sufficient earnings which ensures the survival and continuity of the bank.

Conclusion and Recommendation

The treatment of human resource cost as expenses rather as asset result in distortion of income statements and statement of financial position. In the income statement, the figure designated ‘net income’ is distorted because all cost on human resources are treated as expenses in the period they are incurred rather than capitalizing and amortising them over their expected service life. The statement of financial position is distorted because the figure labeled ‘total asset’ does not include the organisation’s human assets. There is therefore, no indication of the organisation’s actual investment in human asset.

From the study, it can be deduced that the total asset which include human asset of an organization goes a long way in determining the profit and capital employed by the organization. The valuation of human resource and the presentation of value of human asset in the financial report tends to increase investment in such organization, as investors have the assurance that their resources are in good hands which will be effectively and efficiently managed.

Hence, l concluded that human resource accounting will have a significant improvement on the financial position of banks using the Lev and Schwartz model. Therefore, if truly our greatest assets are our staff, then there is urgent need for their values to be evaluated, recorded in our books, operated and disclosed in the statement of financial position. It is also worthy to note that the success and otherwise of an organization depends on the behavior of human being running the organization rather than failure of known traditional asset. The Enron's case is a good example.

Recommendation

- As a matter of urgency, appropriate steps must be taken by regulatory bodies in the profession to develop uniform acceptable standards and models for the computation of the value of human asset such that same can be reflected in the statement of financial position.
- Human resource accounting should be used to value the employees of the organization because this will bring increase in the value of the employee and since the employee know that they are being valued, they will be committed to the job and this will increase the value of the organization.
- The weaknesses of Lev and Schwartz model should be addressed to give a model which will better value human resources.
- How long an employee will serve in a unit before moving to another unit and how long the employee will stay in the organization should all be predetermine at the time the employee is joining the organization.
- Human resources cost should be valued and introduce in the statement of financial position as an intangible asset so that the organization can be properly valued.

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