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CONTENTS

REPORTING HUMAN ASSET IN PUBLISHED FINANCIAL STATEMENTS.

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ABSTRACT

This paper focuses on reporting human asset in published financial statements. The need is necessitated by the failure of the prevailing accounting practice to recognize human resource, normally acknowledged to be the most important asset of an organization, in the balance sheet as an asset, but rather the expenditure relating thereto (recruitment and training cost, wages and salaries) are simply expensed in the profit and loss account. This is considered as an anomaly, to the extent that this resource has value, which exceeds the expensed amount. A more valid treatment of human resources is to reflect it as an asset in the balance sheet taking into consideration that it has future economic benefits extending beyond the current period. The finding of the study was that human asset was considered by the respondents to be the most important asset. Respondents were, therefore, in favour of disclosing both quantitative and qualitative information about human asset in the published financial statements.

Key words: Human Asset, Valuation, Financial Statements, Qualitative Information.
JEL classifications: M40, M41

INTRODUCTION

Until recently, the "value" of an enterprise, as measured in traditional balance sheet, comprising assets like building, production plant, was viewed as a sufficient reflection of the enterprise's assets. However, with the growing emergence of the knowledge economy, this traditional valuation has been called into question due to the recognition of the fact that human capital is an important part of an enterprise's total value.

The prevailing conventional method of accounting treatment of human resources outlays consists of expensing all human capital formation expenditures (recruitment and training costs, wages and salaries) and capitalizing non-human resources (physical resources). The effect is that the entity's net worth conveyed in the balance sheet is clearly understated. Moreover, the net profit is also not likely to be an accurate reflection of the entity's efficiency or earning power (Anao and Chibiuke, 2002).

According to Hekimian and Curtis (1967: 106), "People should be put on the balance sheet". This advocacy is at the heart of the subject of human resource accounting. To put people on the balance sheet would involve treating the human resources of the organization as an asset and not as an expense. Hekimian and Curtis (1967:106) argued that "No organization which handles its employees as an expense item can make wise plans or rational decisions as one which explicitly recognizes the asset characteristics of human resources".

In an attempt to capitalize human resource in order to reflect it as an asset in the balance sheet, the following questions are being asked: (i) Do the financial statements of Nigerian companies contain information on human asset? (ii) Would the inclusion of human asset value in the financial statements improve the quality of the financial statements? (iii) Should human resource be measured both in quantitative and qualitative terms? (iv) Will the value of the company be improved by the inclusion of human asset in the financial statements?

The objectives of this study are to ascertain whether the users of financial statements need human asset value in the financial statements, determine what type of information users of financial statements need as regards human asset, and find out whether users of financial statements would prefer qualitative information to quantitative information about human asset. To achieve these objectives, this paper has been segmented into six sections including this introduction. Section two discusses literature review, while section three deals with methodology. Section four analyses the data. Section five discusses the results. Recommendation and conclusion are carried out in section six.

It is believed that once human resource is appropriately measured and reported in the financial statements as an asset, it will assist management and external users in making better economic decisions, thereby fulfilling the rationale of accounting which is to improve or guide judgment and decisions.

LITERATURE REVIEW

Human resources today, constitute the ultimate basis for the wealth of nations. Capital and natural resources are passive factors of production, human beings are the active agents who accumulate capital, exploit natural resources, build social, economic and political organizations and carry forward national development (Harbison, 1972). Human resources are defined as the "totality of the energies, skill, knowledge and experience available in a country" (Diejomoh, 1978: 34).

Many reasons have been advanced for evaluating the human capital and including its value in the balance sheet. Margue (1976) advanced three reasons in this regard: (i) to provide information in financial terms that can be included in financial statements in order to inform employees, investors and lenders. (ii) to identify the overall contribution of capital and labour to the overall organizational performance. (iii) to provide a basis for managing the organization with greater economic rationality through the provision of improved information for the personnel function. Margue's reasons attract considerable acceptance as at now.

One of the constraints in human resource accounting has been that of valuation. There have been writings on possible methods of valuing human resources for balance sheet purposes. Anao and Chibiuke (2002: 177) opine that "there is a suffusion of literature on this subject advancing alternative measurement approaches but these remain to date not adequately synthesized".

However, attempts have been made to measure it using the historical cost method, replacement cost method, the opportunity cost method and economic value models. (Hekimian and Curtis, 1967; Jaggi and Lua, 1974; Lev and Schwartz, 1971; Likert and Rowers, 1973; Margues, 1976; Morse, 1973; Panorama, 2004; Parker, Ferris and Otley, 1989; Weatherly, 2003; Anao and Chibiuke, 2002). Problems associated with each of these methods are briefly explained as follows:

Historical Cost Method – Belkaoui (2000) notes the measurement problems associated with the historical cost method: first, the economic value of a human asset does not necessarily correspond to its historical cost; second, any appreciation or amortization may be subjective and have no relationship to any increase or decrease in the productivity of the human asset; third, because the costs associated with recruiting, selecting, hiring, training, placing and developing an employee may differ from one individual to another within a firm, the historical cost method does not result in comparable human resource value.

Replacement Cost Method – The replacement method is a good surrogate for the economic value of an asset in the sense that market considerations are essential in reaching the final figure. Its measuring problem is that managers may have difficulty estimating the cost of completely replacing their human organization and different managers may arrive at quite different estimates.

The Opportunity Cost Method – The measuring problem has to do with the inclusion of only scarce employees in the asset base which may be interpreted as discriminatory by other employees.

Economic Value Model – The measuring problem of this model is that in a world of uncertainty, the present value (i.e. worth) of human capital cannot be objectively determined, since future income streams and discount rates are not perfectly known.

Taking cognizance of the fact that these measurement approaches have not been adequately synthesized, there is therefore need to evaluate them with a view to determining their suitability for application in specific situations.

Another important dimension in the literature is that of implementation of human resource accounting in practice. There are no known accounting standards that require the inclusion of human asset value in the balance sheet. Most organizations prefer to regard the human resources as an expense while acknowledging the importance of human resources in their mission and policy statements.

However, many organizations have been working with human resource accounting in a formalized and structured way. Abeysekra and Guthrie (2003) carried out a study on the status of intellectual capital reporting in India and the result indicates that majority of the companies that capitalize their human asset use the prudent value of future earnings model (Lev and Schwartz Model, 1971). As far back as 1974/1975, the Bharaj Heavy Electrical Ltd had started to experiment on human asset capitalization using the Lev and Schwartz Model.

In Nigeria, however, there is no known case of any company capitalizing its human resources for inclusion in the balance sheet. Neither the Companies and Allied Matters Act, 1990 nor the Nigeria Accounting Standards Board has so far made any consequential provision to compel companies to incorporate human asset into their books of accounts.

From the literature review, we can conclude that there is the need to seriously consider the inclusion of human asset value in the financial statements of companies in Nigeria. This inclusion provides a basis for further research particularly in companies in Nigeria where empirical investigation is lacking on the subject.

METHODOLOGY

The study was a cross-sectional survey in which data were collected at a particular point in time, using questionnaire (Appendix 1) completed by a selected sample of respondents in order to describe the characteristics of the large population. The population for the study consists of users of financial statements of companies in Nigeria.

The sampling technique is non-probability sampling technique. The sample was drawn from the following groups namely:

1. External Users – This comprises:
   a. 2005/2006 Year 2 MBA full time students of the University of Benin, who are in addition employees.
   b. 2005/2006 Year 2 MBA part time students of the University of Benin, who are also employees.
2. Internal Users – This comprises of employees only.
3. Members of Accounting Discipline – This comprises of:
   a. Accounting lecturers
   b. Students on full time and part time not working.
   c. Accountants in public sector.
   d. Accountants in private sector.
   e. Practising Accountants.

Year 2 MBA students were used as surrogate for external users group because some of them are shareholders/investors and they were considered financially literate having done a semester course in financial accounting.

The internal users were obtained from year 2 MBA part time students of the University of Benin who are employees of Zenith Bank Plc, First Bank Plc., Flour Mills Nigeria Plc & Guinness Nigeria Plc.

Members of the accounting discipline were made up of lecturers, students on full time and part time not working, practising accountants, accountants in the public sector and in private sector.

A total of 310 respondents were studied. This was made up of 125 year 2 MBA full time students of the University of Benin, 80 year 2 MBA part time students of the University of Benin. 40 accountants in practice and 65 accountants not in practice.

A total of 310 respondents were studied. This was made up of 125 year 2 MBA full time students of the University of Benin, 80 year 2 MBA part time students of the University of Benin. 40 accountants in practice and 65 accountants not in practice.

Questionnaires containing 28 questions, were administered. The questions were mainly "Yes" or "No" response type. A few open-ended questions were included where necessary (Appendix 1).

Using Binomial as a statistical technique, the following four null hypotheses were tested based on the data generated from the field survey report, at 5% level of significance.

The first null hypothesis (Ho) is "Users of financial statements of companies are not in favour of reflecting human asset value in the financial statements".

The second null hypothesis (Ho) states that users of financial statements of companies do not prefer qualitative information about human resource to quantitative information.

The third null hypothesis (Ho) says that the financial statements of companies do not contain adequate information on human asset.

The fourth null hypothesis (Ho) states that the inclusion of human asset value in the financial statements will not improve the quality of the financial statements.

DATA PRESENTATION AND ANALYSIS

The table below shows the analysis of responses from the respondents according to categories.

Categories	Sub-Categories	Distributed No.	Returned No.	Suitable for Analysis
External Users	Shareholders	25	20	20
Internal Users	Employees	50	45	40
Members of Accounting Discipline	Accounting Lecturers	10	9	9
	Students on full time and part time not working	120	75	70
	Accountants in public sector	30	25	20
	Accountants in private sector	35	30	30
	Practising Accountants	40	40	40
Total		**310**	**244**	**229**

A total of three hundred and ten questionnaires were distributed and two hundred and forty-four were returned. Of the number returned, two hundred and twenty-nine were considered suitable for analysis. The remaining fifteen were deemed unsuitable because the respondents did not complete the questionnaires.

The data collected were computed for each research question. The results are as presented in each of the tables that follows as they relate to the hypotheses.

TABLE 2: ANALYSIS OF RESPONSES FROM RESPONDENTS CONCERNING HUMAN ASSET IN THE FINANCIAL STATEMENTS

Categories of Respondents	Responses			
	Yes	**%**	**No**	**%**
Shareholders	17	7	3	1
Employees	30	13	10	5
Accounting Discipline	135	59	34	15
Total	**182**	**79**	**47**	**21**

The above table shows that 182 of the respondents sampled considered it necessary to reflect human asset value in the balance sheet, while 47 did not consider it necessary to reflect human asset value in the balance sheet.

Using Binomial P, the null hypothesis (Ho) as regards the above table is tested using one tail test as follows:

Ho: $P \leq 0.5$

Hi: $P > 0.5$

Z is computed using

$$Z = \frac{x \; nPo}{\sqrt{nPo\,(1 - Po)}}$$

$$Z = \frac{182 \;\; (229 \times 0.5)}{\sqrt{229 \times 0.5\,(1 \;\; 0.5)}}$$

$Z\,cal = 8.92$

$Z_{0\cdot 05} = 1.645$

Since Z cal = 8.92 is greater than Z = 1.645, we accept the alternative hypothesis which says that users of financial statements are in favour of reflecting human asset value in the financial statements.

TABLE 3: ANALYSIS OF RESPONSES FROM RESPONDENTS CONCERNING QUALITATIVE AND QUANTITATIVE INFORMATION ABOUT HUMAN ASSET

Categories of Respondents	Responses			
	Yes	**%**	**No**	**%**
Shareholders	7	3	13	6
Employees	18	8	22	9
Accounting Discipline	69	30	100	44
Total	**94**	**41**	**135**	**59**

The above table shows that 94 of the 229 respondents prefer qualitative information to quantitative information about human asset. 135 of them did not prefer qualitative information to quantitative information.

The Binomial P is used to test the null hypothesis in respect of the above table as shown below:

Ho : $P \leq 0.5$

Hi : $P > 0.5$

$$Z cal = \frac{94 \quad 229 (0.5)}{\sqrt{229 \times 0.5 (1 \quad 0.5)}}$$

$Z cal = -2.709$

$Z_{0.05} = 1.645$

From the above computation, we accept the null hypothesis (Ho) that says users of financial statements of companies do not prefer qualitative information to quantitative information about human resource since Zcal which is 2.709 is less than Z = 1.645.

TABLE 4: ANALYSIS OF RESPONSES FROM RESPONDENTS CONCERNING THE ADEQUACY OF FINANCIAL STATEMENTS INFORMATION ON HUMAN ASSET

Categories of Respondents	**Responses** **Yes**	**%**	**No**	**%**
Shareholders	Nil	Nil	20	9
Employees	Nil	Nil	40	17
Accounting Discipline	Nil	Nil	169	74
Total	**Nil**	**Nil**	**229**	**100**

The table above shows that all the respondents were of the opinion that the financial statements of companies in Nigeria do not contain adequate information on human asset.

Using the Binomial P to test the null hypothesis (Ho) as regards the above table, the analysis is as shown below:

Ho : $P \leq 0.5$

Hi: $P > 0.5$

$$Z cal = \frac{0 \ (229 \times 0.5)}{\sqrt{229 \times 0.5 (1 \quad 0.5)}}$$

$Z cal = -15.133$

$Z_{0.05} = 1.645.$

From the above computation, since Zcal which is - 15 is less than 1.645, the null hypothesis which states that financial statements of companies do not contain adequate information on human asset is accepted.

TABLE 5: **ANALYSIS OF RESPONSES FROM RESPONDENTS WITH RESPECT TO THE INCLUSION OF HUMAN ASSET VALUE IN FINANCIAL STATEMENTS**

Categories of Respondents	**Responses**			
	Yes	**%**	**No**	**%**
Shareholders	14	6	6	3
Employees	30	13	10	4
Accounting Discipline	144	63	25	11
Total	**188**	**82**	**41**	**18**

The table as shown above shows that 188 of the 229 respondents sampled were of the opinion that the inclusion of human asset in the financial statements will improve the quality of the financial statements. The remaining 41 of them opined that its inclusion in the financial statements will not improve the quality of the financial statements.

To test the null hypothesis (Ho) in respect of the above table, the Binomial P is used as follows:

$Ho : P \leq 0.5$

$Hi : P > 0.5$

$$Zcal = \frac{188 - 229 \times 0.5}{\sqrt{229 \times 0.5 (1 \quad 0.5)}}$$

$Zcal = 9.714$

$Z_{0 \cdot 05} = 1.645$

Since Zcal which is 9.714 is greater than Z = 1.645, the alternative hypothesis (H_1) which states that the inclusion of human asset value in the financial statements will improve the quality of the financial statement is accepted.

DISCUSSION OF RESULTS

The respondents accepted that human asset should be reflected in the balance sheet but there are measurement problems associated with putting a value on it (Appendix II). Respondents' view in respect of measurement problems associated with putting a value on human asset, agrees with Belkaoui (2002)'s view as regards problems associated with the historical cost method.

It was generally agreed by the respondents that the information disclosed in the financial statements about human asset in Nigeria is inadequate and that there was need to reflect human asset value in the balance sheet of a company. The reason may be attributable to the fact that mention is only made of few qualitative factors like health, welfare and safety in the director's report, which is a part of the financial statements. Besides, Anao and Chibiuke (2002)'s position, agrees with that of the respondents when he says that the effect of non-inclusion of human asset in the financial statements, has resulted in the understatement of the entity's net worth conveyed in the balance sheet.

On the nature of the information on human asset to be included in financial statements, majority of the respondents agreed that monetary valuation of human resources will enable users to make better economic decisions. Hence, most of the respondents did not prefer qualitative information to quantitative information about human asset of a company seemingly because they felt both were necessary to be included in the financial statements. Majority of the respondents are in favour of the economic value model (Appendix II) as a suitable method of measurement of human capital. The difficulty in determining the value of human capital in a world of uncertainty is responsible for the lack of the use of this method. Most of the respondents agreed that the inclusion of human asset value in the financial statements will improve the quality of the financial statements as this will create and improve the company's image. Its inclusion in the balance sheet will contribute towards attempts made to make the balance sheet to reflect statement in current values.

On the whole, the result of the study supports the view that the inclusion of human asset value in the financial statements will improve the quality of the financial statements. It would have been interesting to compare the results with any previous empirical work, unfortunately, such was not found.

RECOMMENDATIONS AND CONCLUSION

From the study carried out, we suggest that human resource accounting should not be viewed only in the light of qualitative information but should be seen as the provision of both qualitative and quantitative information about human asset which is necessary in order for users of financial statements to make better economic decisions.

As a way of ameliorating the problems associated with respondent's choice of the economic value model as a suitable method of measurement of human capital, we suggest that firms within an industry should collectively determine a base line rate and bases for determination of future streams of personnel cost which serves as a surrogate or imputation of the minimum benefits the firm will derive from the utilization of the human resources.

Third, using the contract labour method, we suggest a valuation model for employees in a contracting company. The valuation model is shown below:

$$V = \sum_{i=1}^{n} \frac{Hi \times i}{(1+R)^{xi}}$$

Where

n = Number of employees

Xi = Agreed period of contract of one employee.

Hi = Agreed contract sum of one employee per annum.

R = A discount rate specific to the employee.

For example, if the contract sum agreed for employing one employee is N20,000 per annum and the agreed period is five years, the total contract value to be capitalized for reflection in the balance sheet as an asset is computed as shown below:

$$V = \frac{Hi\ Xi}{(1+r)^{xi}}$$

Hi = Agreed contract sum of one employee per annum.

V = Human capital value

r = A discount rate specific to the employee

Xi = Agreed period of contract of one employee

$Hi =$ N20,000 $r = 10\%$ $xi = 5$ years.

$$V = \frac{20{,}000 \times 5}{(1+0.1)^5}$$

$$V = \frac{100{,}000}{(1.1)^5}$$

$$V = \frac{100{,}000}{1.61051}$$

$V =$ N62,092

Human capital value for one employee = N62,092.00

Expired Yearly Portion of Human Resources = $\frac{N62{,}092}{5}$ = N12,418.40k

The balance sheet extract would therefore appear as follows:

Liabilities	N	Assets	N
Contractual		Human Resources	
Human Resources	49,673.60	Less Prov. For Expired Human Resources	62,092.00
			12,418.40
	49,673.60		49,673.60

Fourth, currently director's report (being a part of financial statements) does not cover adequately qualitative information about human asset. Brief explanations are only given to some factors namely: health, welfare and safety. We suggest that other qualitative factors that determine the value of human asset as identified below should be reflected in the director's report with detailed explanation given to each of them: (i) intelligence and aptitude (ii) level of performance (iii) quality of leadership (iv) degree of team work (v) communication system (vi) co-ordination of efforts (vii) motivation (viii) management expertise (ix) integrity of work force

In addition, to the extent that director's report only contained qualitative information, it should also reflect information about human asset in quantifiable terms on training and development effort, recruitment and expenditure on pension and comparative figures for previous years.

Fifth, in view of the observed difficulties of putting a value on human asset, we propose that human asset may help to explain part of the value of goodwill.

This paper has its focus on reporting human asset in published financial statements. Attempts so far made have been directed at possible ways of reflecting human asset value in the financial statements bearing in mind problems associated with its valuation.

realistic result in the introduction and implementation of Human Resource Accounting will be achieved.

Human capital is still a developing field with contributions from many disciplines. There is therefore no consensus yet on a universal framework.

REFERENCES

Abeysekra, I. and Guthrie, J (2003): "Status of Intellectual Capital Reporting in Sir Lanka", *A Research Note.*

Anao, A. R. and Chibiuke, U.C. (2002): *Research Design and Implementation in Accounting and Finance,* Benin City: University of Benin Press.

CAMA (1990): "Companies and Allied Matter Acts" FGN.

Diejomah, V.P. (1978) "Nigeria's Human Resources: A Preliminary Assessment", *Human Resource and African Development,* Praeger Publishers, New York, pp. 33 – 70

Harbison, F. H. (1972): *Human Resources as the Wealth of Nations,* New York, Oxford Uniford University Press.

Hekimian, J. and Curtis J. (1967): "Put People on your Balance Sheet", *Harvard Business Review,* April, Vol. 45: No. 1, pp. 105 – 113.

Jaggi, B. and Lau, H. (1974): "Towards a model for Human Research Valuation", *Accounting Review,* April, Vol. XLIX, No. 2, pp., 321 – 329.

Lev, B and Schwartz, A. (1971): "On the use of Economic Concept of Human Capital in Financial Statements", *The Accounting Review,* January.

Likert, R. and Rowers, D.G (1973): "Improving the Accuracy of P/L Reports by Estimating the change in Dollar Value of the Human Organization", *Michigan Business review.*

Margue, E. (1976): "Human Resource Accounting some Questions and Reflections", *Accounting organization and Society.*

Morse, W.J. (1973): "A Note on Relationship Between Human Asset and Human Capital", *Accounting Review,* July, Vol. XLVIII, No. 3 pp. 589 – 593.

Panorama, (2004): "Human Resource Accounting in Practice" www.2.trainingvillage.gr/download/publication/panorama/5085/index en.html.

Parker I. D., Ferris R.K and Otley D.J. (1989): *Accounting for Human Factor,* New York: Prentice Hall.

Weatherly, A. (2003): "The Value of People: the Challenges of Human Capital Measurement and Reporting". *HR Magazines,* Sept.

Analysis of Questionnaire distributed to Shareholders, Employees and Members of the Accounting Discipline

Questions	External Users		Internal Users		Accounting Discipline		Total	
	Yes	No	Yes	No	Yes	No	Yes	No
Have you ever seen a published financial statement?	20	Nil	40	Nil	169	Nil	229	Nil
Can you read and interpret a published financial statement?	20	Nil	40	Nil	169	Nil	229	Nil
Do you care to know about the human asset of a company?	20	Nil	40	Nil	169	Nil	229	Nil
Do you have knowledge of accounting ratios?	20	Nil	40	Nil	169	Nil	229	Nil
Does the balance sheet of the company in which you work reflect human resource as an asset?	Nil	20	Nil	40	Nil	169	Nil	229
Do you think the financial statements (i.e. balance sheet, P&L A/c) of a company disclose adequate information about its human resources to its users?	Nil	20	Nil	40	Nil	169	Nil	229
Do you think human asset has a value?	19	1	40	Nil	167	2	226	3
Do you consider it necessary to reflect human asset value in the balance sheet of a company?	17	3	30	10	135	34	182	47
Is it possible to place monetary value on the human asset of company?	14	6	27	13	105	64	146	83
Do you consider monetary valuation of human resources of a company necessary information to its users?	16	4	32	8	138	31	186	43
Will monetary valuation of human resources enable users to make better economic decisions?	12	8	34	6	146	23	192	37
Do you prefer qualitative information to quantitative information about human asset of a company?	7	13	18	22	69	100	94	135
Do you consider profit disclosed in a company's financial statement a reflection of the productive capacity of	9	11	24	16	69	100	102	127

its work force in the absence of any explicit recognition of the human asset?								
Do you consider educational qualification the major determinant of the value of a company employee's service?	1	19	10	30	42	127	53	176
Will the inclusion of human asset value in the financial statement improve the quality of the financial statement?	14	6	30	10	144	25	188	41

Information From Respondents About Measurement Difficulties Associated With Human Asset

No. of respondents that chose E.V.M only as measurement problem.	No. of respondents that chose H.C.M only as measurement problem.	No. of respondents that chose R.C.M only as measurement problem.	No. of respondents that chose O.C.M only as measurement problem.	No. of respondents that chose E.V.M, H.C.M, R.C.M & O.C.M as measurement problems.	No. of respondents that chose E.V.M & R.C.M as measurement problems.	No. of respondents that chose E.V.M, H.C.M & R.C.M as measurement problems.
78	10	28	16	24	52	21

E.V.M stands for Economic Value Model

H.C.M stands for Historical Cost Method

R.C.M. stands for Replacement Cost Method

O.C.M stands for Opportunity Cost Method