



HUMAN RESOURCE ACCOUNTING – A VALUE-BASED BUSINESS MANAGEMENT TOOL

Dr. Ranjana Sharma

Associate Professor

Department of Finance

Doon Business School

Dehradun (Uttarakhand)

ABSTRACT

Human resource accounting refers to the accounting methods, systems, and techniques that, when combined with special knowledge and ability, assist personnel management in valuing personnel in terms of their knowledge, ability, and motivation within the same organisation as well as across organisations. The study is mostly comprised of a thorough evaluation of related literature based on substantial labour.

The main advantages of such accounting are that it fosters efficient managerial decision making, management quality, avoids abuse of human resources, enhances human asset productivity, boosts moral, work satisfaction, and creativity, and so on. The restrictions involved are that the unpredictability of human resources causes uncertainty in human resource value.

The present study focuses on approaches and various Human Resources valuation Models. It helps management in better utilization, planning, management of human resources in the organization.

Key Words: Human Resource Accounting (HRA), Human Resource, Human Resource Valuation, Human Resource Cost, Human Resource Approach

I. INTRODUCTION

In today's competitive business environment, the quality of human resources plays a critical role in corporate success. It is emphasised that the human factor is the most essential contribution in every business. Human resource investments are those that are made to improve the organization's workforce's knowledge, skills, and aptitudes. Investigating human resource accounting techniques in the business sector throughout the world is helpful in this respect. (Akintoye *et.al.*, 2015).

Human Resource Accounting (HRA) is a subset of social accounting that attempts to give information on the evaluation of one of the organization's most significant components, namely human capital (Andrade & Sotomayor, 2011). HRA is the process of finding, measuring, and disseminating data on human resources to interested parties. HRA is extremely important not just for management, but also for analysts and employees. It assists management in effectively utilising, planning, and managing human resources in the business. (Adebawojo, *et al.*, 2015).

HRA is the skill of methodically evaluating, recording, and displaying the work of human resources in an organization's books of accounts. Thus, it is essentially an information system involved in recognising, measuring, collecting, tracking, and evaluating the potential of an organization's human resources and disseminating the resulting information to the organization's stakeholders (Danaei, *et. al.*, 2014).

In this paper an initiative has been taken to evaluate the present status of human resource accounting and identify the issues and challenges and discusses the different perceptions of HRA.

II. THE CONCEPT OF HUMAN RESOURCE ACCOUNTING (HRA)

In economics, the major elements of production are land, labour, capital, and entrepreneur. Every organisation reports on and includes land and capital in its balance sheets, but labour and entrepreneurs are not paid much attention and so simply constitute a charge against the company's profit. (Abubakar, 2006; Glautier, 1974).

Sir William Petty pioneered the concept of human resource accounting in 1691. However, Renis Likert's study into future human resource accounting began in 1960. Human resource accounting, according to Prof. Flamholtz (1974), is the accounting for people as an organisational resource. According to Bullen and Eyler (2010), human resource accounting entails accounting for human resource expenditures as assets as opposed to standard accounting, which regards these costs as expenses that diminish earnings.

Human resource accounting, as defined by the American Accounting Association (1973), is the act of identifying, measuring, and disseminating information regarding human resources in order to support successful management within an organisation. However, the definition is incomplete since it does not specify what constitutes human resource expenditure and how it is to be recognised. Thus, human resource accounting can be defined as an accounting process that identifies, quantifies, and measures human resources for use by management in order to meet charges in terms of quantity and quality, so that an equilibrium can be achieved between the required resources and the provided human resources. (Johanson, et. at., 1998)

Human Resource Accounting, according to Flamholtz (1985), is the process of quantifying the costs paid by businesses and other organisations to seek, select, hire, train, and develop human assets. HRA is viewed by Friedman and Lev (1974) as a tool for systematically evaluating both the asset value of labour and the quantity of asset development that can be ascribed to human activities. According to Woodruff Jr. (1989), Human Resource Accounting is an attempt to identify and report investments made in an organization's human resources that are currently not accounted for in traditional accounting methods.

Human Resource Accounting, according to Raghav (2011), is a way of assessing the efficacy of personnel management operations and the utilisation of people in a company. Human resource/capital accounting, as described by Flamholtz et al. (2002), is the accounting of people as an organisational resource. It entails calculating the costs paid by a business to seek, choose, hire, train, and develop human resources. (Okpala and Chidi, 2010).

According to Gupta (1991), human resource accounting is essentially an information system that notifies management what charges are accruing to the business's human resources over time. It entails accounting for human capital investment and replacement costs, as well as the economic worth of individuals in a company. While Newman (1999) defined HRA as the measuring of all workers of a company, at all levels-management, supervisory, and regular employees-to generate value from their knowledge and mental skills.

In her definition, Jasrotia (2004) sees HRA as a measurement and reporting of the cost and value of people as organisational resources. This concept is based on the idea that workers' knowledge and intellectual capacities are becoming increasingly relevant in business investment decisions. HRA is defined by Rahaman et al. (2013), is the process of calculating the costs paid by businesses and their organisations to search, select, train, hire, and develop human assets. In other words, HRA entails calculating the economic worth of people to an organisation.

The act of collecting and quantifying data on human resources and presenting this information to interested parties is known as human resource accounting (HRA). Thus, HRA is an information system that informs management about changes in an organization's human resources (Reeta, 2015).

III. WHY IS HUMAN RESOURCE ACCOUNTING NECESSARY ?

As indicated below, human resource accounting gives important information to management, financial analysts, and employees (Kouhy, et. al., 2009)

- a) Human Resource Accounting aids management in the hiring, finding, and utilising of human resources.
- b) It encourages managers and decision-makers to consider decisions from the perspective of human resources (Toulson & Dewe, 2004).

- c) It serves as a foundation for planning physical assets in relation to human resources.
- d) It aids in determining the cost of providing more education and training to employees in relation to the advantages gained by the company.
- e) It aids in identifying the reasons of excessive labour turnover at various levels and implementing preventative actions to reduce it.
- f) It aids in determining the root reason of a low return on investment, such as incorrect or underutilised physical assets, human resources, or both.
- g) It aids in recognising and analysing an organization's core strength, allowing management to guide the firm successfully through the most severe and unfavourable conditions.
- h) It gives essential information to anyone considering a long-term investment in the company.
- i) It assists employees in increasing their performance and negotiating strength. It helps each of them comprehend his contribution to the firm's success in relation to the firm's investment on him.
- j) It aids in the formulation of management principles by categorising the financial implications of diverse activities (Sharma & Shukla, 2010).

IV. WHY DO WE PREFER HUMAN RESOURCE ACCOUNTING?

Organizations devote certain financial resources to the employee from the time of advertisement for a specific position until the point of departure. Many factors contributed to businesses' proclivity to spend on human resources. According to Abubakar (2006), getting the best human brain, achieving the organization's pre-determined objectives, commanding respect in the eyes of stakeholders, gaining competitive advantage, becoming the pace setter and market leader are some of the reasons why organisations invest heavily in their human capital.

However, Lau and Lau (1978), Steffy and Maurer (1988), Roslender and Fincham (2001), and Leffingwell (2002) showed areas in which businesses invest money in relation to their human resources. Advertisement, Recruitment and Selection, Familiarization and Training, Training and Development, Medical, and Entertainment are the areas indicated.

HRA is not beneficial to management in attaining its economic goals on its own. It might also be a source of critical information for financial decisions. The inclusion of relevant human resource information in public financial statements would very certainly make such statements more useful in projecting future performance, which is, of course, the primary concern (Jawahar Lal, 2009).

According to Sveiby (1997), businesses purchase Human Resources to create future profits, and so Human Resources should be included when evaluating a company by capitalising them rather than expensing them in the present period. According to him, the ideas of human capital, intellectual capital, and structural capital are comparable to other assets.

Human resources is widely regarded as an essential component of the firm's value creation processes (Pike *et al.*, 2002, Holland, 2003; Bukh *et al.*, 2005), as well as the creation and maintenance of competitive advantage (Holland, 2006). Firms spend substantially on human capital assets in today's changing business climate. However, these investments are either promptly expensed in the financial statement or arbitrarily amortised, and hence are not completely represented in the balance sheet. As a result, the book values of businesses with large human capital investments are unconnected to market values (Amir and Lev, 1996; Brennan, 2001; Lev, 2001; Holland, 2003).

The chartered institute of management accountants stated that all performance and value drivers, including non-financial ones like as intangibles, should be communicated to investors (Starovic & Marr, 2003). The Financial Accounting Standards Board (FASB) solved this problem by encouraging businesses to voluntarily report information about their intangibles and intellectual capital (FASB 2001).

Intellectual capital resources (including human capital) are becoming increasingly essential in achieving corporate goals (Guthrie and Petty, 2000). To completely comprehend a company and the performance of its management, corporate reports must accurately reflect all resources employed and produced to enhance the organization's achievement (Boedker *et al.*, 2008). It is a positive link between a firm's degree of performance and its amount of intellectual disclosure. The researcher discovered a statistically significant inverse link between a firm's degree of intellectual capital disclosure and its level of performance, contrary to the forecast.

It is true that human life is unpredictable, and we may lose a life at any time. But, even if the automobile is at risk of being lost or damaged, shouldn't a corporation record it on its balance sheet? A business with a ship on the sea might be sunk at any time. The ship can still be found in the company's financial accounts. So, why aren't human abilities or knowledge recognised in financial reports?

V. CRITICISM AGAINST HUMAN RESOURCE ACCOUNTING

Many factors operate as deterrents to the use of HRA. According to Gates (2002) and Akinsoyinu (1992), the reporting businesses are mostly responsible for HRA issues. In other words, the author focused on the reporting entities while identifying HRA issues. According to his research, the following are the barriers that make it difficult to report human capital values by compiling data.

- a) The main barrier to reporting human capital externally is that the information reported may be sensitive to the reporting companies and should not be shared externally because the information may provide important insight to competitors or may lead to a negative interpretation on the part of the various stakeholders.
- b) According to Gates (2002), companies do not emphasize the assessment of human assets over more pressing concerns such as human resource demand and allocation.
- c) If the Human Resource Manager does not place enough emphasis on the idea of HRA, senior management will place even less emphasis and resources on it, leaving little time for measurement.
- d) According to Gates' study, managers believe that the formal creation of performance metrics offers little value to external stakeholders. In other words, many managers have noticed little return on the cost and time involved in reporting human capital. According to the managers interviewed by Gates, there would be no results if there were no set measuring standards.
- e) Another barrier to HRA adoption is the lack of a standardised strategy to reporting, which would define the standards that would allow for relevant and meaningful comparisons. Because there is currently no common definition, firms who are proactive enough to measure do so in their own way (Gates, 2002).

From another angle, Jasrotia (2004) examined the trends in the field of HRA and identified some factors that impede progress in the area and the application of the concept, including a low level of awareness and acceptance of HRA, the absence of an industry standard, the extensiveness of the research involved, and the dynamism of some industries, such as information technology, which is very dynamic due to frequent changes. According to Kodwani and Tiwari (2007), Abubakar (2006), Roslender (2004), Jasrotia (2004), and Flamholtz (1985), human resources have certain unique characteristics that make their value so unusual. These characteristics include the following:

- a) Service period uncertainty as a result of employees' freedom to move anytime they want. An employee may leave a job at any time and for any reason.
- b) Uncertainty of Recruit Contribution Level since an employee's contribution level is too difficult to assess and anticipate with much accuracy. His or her production varies and is affected by a variety of different circumstances.
- c) Salary and/or salary payments play an important role in valuing human resources. An employee who is valued in terms of future salary and pay established today will have his value impacted anytime the government changes policies impacting his reward system or when the workers union takes action regarding the reward system.
- d)

VI. HUMAN RESOURCE VALUATION APPROACH

Human beings are the living, breathing components of every organisation. To a large part, the success of every business is determined by the quality and calibre of its employees. Thus, despite all technical advancements, the importance of human resources has not lessened. With the introduction of scientific management, which emphasises quantitative methods to make the most effective use of all resources, the computation of human resource capital has also been included (Ratti, 2012).

Various methods have been proposed to quantify the talent, abilities, and knowledge of individuals or the workforce.

a) Historical Cost Approach – This style was created in 1967 by William C. Pyle, with assistance from R. Lee Brummet and Eric G. Flamholtz, and R. G. Barry Corporation, a recreational footwear manufacturer located in Columbus, Ohio (USA). Under this technique, the real cost of recruiting, choosing, training, placing, and developing an enterprise's human resources is capitalised and written off over the projected useful life of the human resource, which is the same as that of any other physical asset.

The historical cost of human resources is the investment in human resources that includes both expense and asset components. Various cost components reflecting the human resource investment subsystem can be classified into four categories: Acquisition, Development, Welfare, and Other Costs. It adheres to the standard accounting notion of cost-to-revenue matching. It can serve as a foundation for calculating a company's return on human resource investment.

b) Replacement Cost Approach - Rensis Linkert (1967) proposed this method, which was further refined by Eric C. Flamholtz based on the notion of replacement cost. It covers the costs of recruiting, selection, pay, and training (including the income foregone during the training period). However, it does not take into account employees' work ethics. Replacement costs are calculated using an employee's current worth to the firm. This is the current value of the services that an employee is projected to offer in the future (Dawson, 1994).

c) Opportunity Cost Approach – Hekimian and Jones pioneered this technique in 1967. It proposed using the opportunity cost technique to assess the worth of human resources based on an employee's value in other applications. It is difficult to quantify human resource value using this technique. Because alternate uses of human resources inside the company are limited and may not be discernible in the real industrial environment.

d) Rewards Valuation Approach – Eric G. Flamholtz was the first to describe it. This method focuses on human resource accounting value rather than human resource cost, calculating an employee's worth as the discounted total of the service states that the individual would occupy over his/her career with the business. This model calculates a person's expected conditional and realisable value. However, appropriate information about the value of the service, the expected tenure, and the likelihood that the employee would fill the precise job for the stipulated amount of time define the predicted realisable value of human resources in this model.

e) Present Value of Future Earnings Approach – According to the Lev and Schwartz (1971) method, a company's human resource is the total of all the Net Present Value (NPV) of personnel expenditure. The technique also suggests using an organization's cost of capital to discount future earnings of workers to arrive at the present value.

f) Return of Efforts Employed Approach – This method assesses the worth of a company's human resources based on the individual's contributions to the organization's success. Employees' efforts are assessed based on their position, level of excellence, and experience profile.

g) Hermanson's Approach - Roger H. Hermanson (1964) proposed two techniques for calculating human resources: the purchased goodwill approach and the adjusted discounted future salary approach.

1) In the case of the bought goodwill method, above-average earnings in a business are evidence of the availability of human resources. This method necessitates calculating the ratio of each firm's net income after taxes (EAT) to total assets (excluding human assets).

2) In the case of the adjusted discounted future wage method, pay is used as a proxy measure of an individual's worth to the business. Compensation refers to the present value of a future stream of wages and salaries paid to the firm's employees. The discounted future pay stream is modified by a 'efficiency ratio,' which is the rate of effectiveness of human resources functioning in the specified business over a five-year period.

h) Rewards Valuation Approach – Flamholtz (1971) developed this technique for human resource evaluation, which is further explained in Flamholtz (1999). It consists of a five-stage procedure that begins with identifying various service or institutional roles that a person may occupy in the firm. The next stage is to determine the worth of each post to the institution, the service state values, which may be quantified using a variety of methods such as the price-quantity approach or the income approach.

i) Standard Cost Approach - This method was proposed by David Watson. Year after year, the typical expenses of recruiting, employing, training, and developing people per grade are established using this technique. For accounting reasons, the standard cost determined for all human beings working in the business is the value of human resources. The strategy is simple to teach and can serve as a solid foundation for control using the variance analysis technique.

- j) Current Purchase Power Approach** – Instead of using the replacement cost to capitalise, the capitalised historical cost of human resource investment is transformed into current buying power of money using index numbers.
- k) Jaggi & Lau Approach** - This concept proposes valuing human assets as a collective rather than as individuals. In this approach, a group is defined as a homogenous collection of individuals who may or may not work in the same department. While it may be difficult to predict an individual's expected service tenure in the organisation or at a specific level or position, it is easier to ascertain the percentage of people in a particular group who are likely to leave the firm during each of the upcoming periods, or to be promoted to higher levels, on a group basis. A Markov Chain model may be used to consider employee position changes throughout the company.
- l) Capitalization of Salary Approach-** According to Baruch Lev and Aba Schwartz, the wages payable to workers during their tenure with the company may be utilised as a replacement for the value of human resources, due to the tight relationship between employee remuneration and their worth to the firm. Thus, the present value of future earnings of a homogeneous group of employees is the value of human resources.
- m) Likert's causal, intervening and end-result Approach** - Rensis Likert was the first to do research in Human Resource Accounting in the 1960s, emphasising the necessity of strong pressures on HR's qualitative factors and their long-term advantages. This method is based on non-monetary values. The human variable, according to Likert's approach, may be split into three groups. i).Causal factors ii) Intervening variables iii). End-result variables.
Through job satisfaction, costs, productivity, and earnings, the interaction between the causative and intervening variables influences the end-result variables.
- n) Brummet and Taylor's human resource value index Approach-** According to R. Lee Brummet and Robert Taylor, knowledge of the dynamics of human resource values in an organisation is more essential than knowledge of an estimate of the value at a certain moment. This Approach for Determining Human Resource Value Index may be used to evaluate human resources as they are currently distributed in a company. This model's clear inclusion of both individual and group condition variables is an appealing feature.
- o) Certainty Equivalent Net Benefit Approach** - Pekin Ogan proposed this approach in 1976. The value of human resources is evaluated under this approach by taking into account the certainty with which net benefits will accrue to the company in the future. The model consists of the following steps: 1. Each employee receives a net benefit. 2. The degree of certainty with which the advantages will be available in the future. 3. The certainty equivalent benefits will be computed by multiplying the certainty factor by the net benefits from all employees. This is the enterprise's human resource value.
- p) Dasgupta Model or Total Cost Approach** - This model was proposed by Prof. N. Dasgupta in 1978. The whole cost paid by the individual up to that position in the organisation should be considered as the worth of a person, which is further modified by his intelligence level, according to this model. The estimated value is changed on a regular basis based on age, performance, experience, and other qualities.
- q) Ogan's Approach** - The Net benefit model was developed by Pekin Ogan (1976). In reality, this is an extension of Morse's proposed "net benefit method." The confidence with which future net benefits will accrue, according to this method, should also be considered when assessing the worth of human resources.
- r) Expense Approach** – This method, according to Mirvis and Mac (1976), focuses on assigning monetary values to the behavioural results generated by working in an organisation. Traditional organisational methods are used to measure criteria like as absenteeism, turnover, and job performance, and expenses are estimated for each criterion.

VII. HUMAN RESOURCES ACCOUNTING PREREQUISITES

Some resources and elements must be present in order for Human Resource Accounting to be used effectively in an organisation, such as:

- All levels of management assistance to facilitate the process.
- Time and both financial and human resources are required for data collecting, defining criteria, monitoring personnel, and progressing in the Human Resource valuation process.
- A multi-functional team to work around the process, since it requires a diverse set of talents and ways of thinking, and the method of assessing Human Resource value is complex.

- d) A modern-style Human Resource team that embraces new developments and assists others in adapting to them.
- e) HR staff awareness campaigns to all workers about the valuation and to realise that they would not be regarded as objects, but rather for their own reasons.
- f) Creation of knowledge-based measurement methodologies.
- g) Measurements must be developed to be extremely relevant to the company's strategic direction (Verma & Dewe, 2004).
- h) The company's size should be substantial, because it is not cost effective for small businesses to use it (Narayan, 2010).
- i) human resources information system containing all personnel data should be established for use in appropriate personnel management (Narayan, 2010).

VIII. ASPECTS OF HUMAN RESOURCES ACCOUNTING

Human Resources Accounting, according to Barcons and Al, may be approached from two viewpoints (Vatasoiu et al, 2009):

A. Treatment from a Financial Accounting Perspective: If future gains are anticipated from these training costs, they might be classified as assets. This, however, is not the case. There is a significant lack of connection between the current businesses' real assets and those recorded on the balance sheet. In reality, assets are too closely associated with their legal definition (that is, held by the business...), in contrast to a pure economic approach in which an asset is any instrument or method that may be utilised in the production distribution firm's process or, In general, any category of economic value that can be converted into goods or services or any instrument at the service of the firm or that the firm uses, regardless of its legal status, as well as all goods and rights that the firm does not own now but used to own or will own later on, as a result of collateral contracts or agreements that may induce it. As a consequence, a decision is made about the dominant asset concept. This predicament may be explained by two primary challenges that occur when dealing with intangibles: identifying the asset's cost and estimating the amortisation period. It may thus be stated that not only are the boundaries between intangible, fixed assets, and deferred charges ambiguous, but also which parts are regarded assets and which are considered costs.

B. Treatment from a Managerial Accounting Perspective: Employees of a determined enterprise are involved in a value-creation process. That is, any economic action incurs expenses for the company. One common classification takes into account the cost categories of raw materials, industrial plants, and employees. When income flow is added to an organization's market goods and services, it becomes added value if it is more than the cost flow. This value results from the interplay of material and human resources in manufacturing. Accounting has utilised substituted metrics such as acquisition cost, substitution cost, and even opportunity cost since it is difficult to identify and evaluate value.

IX. LIMITATIONS OF HUMAN RESOURCE ACCOUNTING

Human Resource Accounting is a term used to describe the Accounting Methods, Systems, and Techniques that, when combined with special knowledge and ability, assist personnel management in the valuation of personnel in their knowledge, ability, and motivation within the same organisation as well as between organisations. This implies that some employees become a liability rather than a human resource. HRA supports personnel decisions, such as whether to retain or terminate their employment, or to give training. There are several constraints that make management hesitant to use Human Resource Accounting.

- a) There is no clear-cut and precise process or standards for determining the expenses and worth of an organization's human resources. There are certain disadvantages to the systems that are being implemented.
- b) Because the existence of Human Resources is unknown, valuing them under uncertainty in the future is unreasonable.
- c) The much-needed empirical evidence to support the notion that HRA as a management tool promotes better and more effective human resource management has yet to be discovered.
- d) Because human resources, unlike physical assets, cannot be owned, kept, and used, it is difficult for management to regard them as assets in the strict sense.

- e) There is a continual worry of trade union resistance since putting a value on employees would lead to their claiming incentives and remuneration based on such values.
- f) Despite its importance and need, the Tax Laws do not consider humans as assets.
- g) No widely acknowledged technique of valuing Human Resources exists.

X. IMPORTANCE OF DEVELOPING METHODS FOR HUMAN RESOURCES ACCOUNTING

A survey was done using component analysis, and two reasons why assessing human resources is essential were discovered. (Toulson & Dewe, 2004): The first is that measurement reflects the strategic and competitive relevance of human resources, and the second is that human resources must be expressed in financial terms in order to gain credibility. The human capital planning and budgeting process, if effectively implemented, will become a significant driver of strategy, as strategic human capital planning and budgeting assures that the finest resources are mobilised for each internal activity, and highlight that financial statistics are a lagging sign of where a business has been and should not be replaced for leading indicators of where the firm is headed. Rather, management should concentrate on the causal, leading indicators that drive effective financial measures, and that the illusion of financial emphasis may be avoided through skills-based budgeting (McKenzie & Melling, 2001).

The worth of human capital should be more thoroughly addressed when making decisions concerning the acquisition and disposal of people—and it is noted that existing accounting procedures used by corporations might have an unfair impact in driving these organisations' strategic decisions. Moore observes analogies between the process of obtaining an employee (a human capital asset) and that of purchasing a fixed capital asset (Bullen, 2007).

XI. A VISIBLE SOLUTION

Assets are resources from which future economic value will flow to the entity. As an employee of an organization will not merely work for a single year, it seems rational to account for employee as an asset in the balance sheet on the ground that they will provide future economic benefit to the entity. Furthermore, charging the cost of staff recruitment, training, and development in the profit and loss account for a particular period violates the expense recognition principle of accounting. As with other physical assets, amortising these expenditures over the benefit generating period is widely recognised because the incurrence of these expenses provides benefit over more than one fiscal year. So, until and unless a sophisticated and widely recognised model for valuing human capital is established, it will be desirable to capitalise and amortise the costs of recruiting, choosing, formal training and familiarisation; informal training and familiarisation. The amortisation will be spread out throughout the anticipated service duration. This solution is consistent with the current historical cost approach.

XII. IMPLEMENTATION AND RECOMMENDATIONS

The study's conclusions are extremely important to both standard setters and companies. The current trend toward fair value accounting for international standards shows a more sophisticated approach to the evaluation of assets, both physical and intangible. Given the consensus among academics and policymakers that the conventional financial reporting system does not offer investors with value-relevant information, it is possible that disclosing Human resource accounting information in financial statements may become required in the future. As a result, the focus of policy should be on developing a dominant model for valuing human capital, establishing reporting rules, and encouraging compliance with these guidelines.

Because the model currently proposed to quantify Human Resources lacks acceptability, this could indicate a willingness to recognise the need for, and consider the measurement and use of, the proposed solution in which acquisition and development costs are capitalised and amortised over the service period. Such an approach eliminates the issues associated with prescriptive standards that must be enforced.

REFERENCES

- Abubakar, S. (2006). *An Assessment of Human resource accounting measures and application possibilities in Nigeria*. Ahmadu Bello University, Zaria, Nigeria, 2006.
- Adebawojo, O.A., Enyi, P.E. and Adebawo, O.O. (2015). Human asset accounting and corporate performance. *American International Journal of Contemporary Research*, 5 (1), 45-52.
- Akinsoyinu, A. B. (1992). Human Resources Accounting: The Myth and Reality, *The Nigeria Accountant*, 27 (2), 18-20.
- Akintoye, I. R., Segun, O.P. and Odewusi, O.O (2015). Accounting for human asset in the statement of financial position: How realistic is the Lev & Schwartz model ?. *British Journal of Arts and Social Sciences*, 20 (2), 67-87.
- American Accounting Association (1973). Report of the Committee on Accounting for Human Resources. *The Accounting Review*, 48, 6-11.
- Amir, E., B. Lev. (1996). Value-relevance of nonfinancial information: The wireless communications industry. *Journal of Accounting and Economics*, 22, 3-30.
- Andrade, P. & Sotomayor, A. M. (2011). Human Capital Accounting - Measurement models. *International Journal of Economics and Management Sciences*, 1 (3), 78-89.
- Boedker, C., Mouristan, J., & Guthrie, J. (2008). Enhanced business reporting: International trends and possible policy directions. *Journal of Human Resource Costing and Accounting*, 12 (1), 14.
- Brennan, N. (2001). Reporting Intellectual Capital in annual reports: Evidence from Ireland. *Accounting, Auditing and Accountability Journal*, 14 (4), 423.
- Bukh, P.N., Nielsen, C., Gormsen, P. and Mouritsen, J. (2005). Disclosure of information on intellectual capital in Danish IPO prospectuses. *Accounting, Auditing and Accountability Journal*, 18 (6), 713-732.
- Bullen, M.L. (2007). Human Resource Accounting: A useful tool for measurement and management in organizations. *Leadership and Organizational Management Journal*, 85, 103.
- Bullen, M.L and Eyler, K. (2010). Human Resource Accounting and International development; implication for measurement of human capital. *Journal of internal business and cultural studies*, 1, 16.
- Danaei, A, Abdi, H., Mohagheghi, H. & Bajlan, M. (2014). Human Resource Accounting and financial reporting. *Indian Journal of Fundamental and Applied Life Sciences*, 4 (1), 1565-1570.
- Dawson, C. (1994). Human Resource Accounting from prescription to description. *Management Decision*, 32 (6), 35-40.
- Flamholtz, E. G. (1971). A model for human resource valuation: A stomatic process with services rewards. *The Accounting Review*, 46 (2), 253-267.
- Flamholtz, E. G. (1974). Human Resource Accounting: A review of theory and research. *The Journal of Management Studies*, 2.
- Flamholtz, E. G. (1985). *Human Resource Accounting*. 3rd Edition. San Francisco CA, USA: Jossey-Bass.
- Flamholtz, E. G. (1999). *Human Resource Accounting: Advances, Concepts, Methods and Applications*. Kluwer Academic Publishers, MA Boston.
- Flamholtz, E., Bullen, M. and Hua (2002). Human Resource Accounting: A historical perspective and future implications. *Management Decision*, 40 (10), 947-954.
- Friedman, A and Lev, B. (1974). A surrogate measure of the firm's investment in human resource. *Journal of Accounting Research*, 12 (2), 235-250.
- Gates, S. (2002). *Value at Work: The Risks and Opportunities of Human Measurement and Reporting*. The Conference Board, USA.
- Glautier, M.W.E. (1974 November). *Human resource accounting: A critique of research objectives for the development of human resource accounting models*. Paper presented at a seminar on Human resource accounting held at the European Institute of Advanced Studies in Management, Brussels.
- Gupta, D. K. (1991). Human Resource Accounting in India: A prospective. Administrative staff college of India. *Journal of Management*, 20 (1), 9-10.
- Guthrie, J. and Petty R. (2000). Intellectual Capital: Australian annual reporting practices. *Journal of Intellectual Capital*, 1 (13), 241.

- Hermanson, R. H. (1964). *Accounting for Human Assets*. Occasional paper No. 14 (East Lansing, MI: Bureau of Business and Economic Research, Michigan State University. Michigan, United States.
- Holland, J. (2003). Intellectual Capital and the Capital Market - organization and competence. *Accounting, Auditing and Accountability Journal*, 16 (1), 39-48.
- Holland, J. (2004). Fund Management, Intellectual Capital, intangibles and private disclosure. *Managerial Finance*, 32 (4), 277-316, 2004.
- Jasrotia, P. (2004). The need of Human Resource Accounting. Retrieved from <http://www.itpeopleindia.co./20021216/cover.s.html>.
- Jawahar Lal (2009). *Corporate Financial reporting, theory and practice cases*. University of Delhi. Taxmann Publications, Delhi. 280-302.
- Johanson, U., Eklov, G., Holmgren, M. and Martensson, M. (1998). *Human Resource Costing and Accounting versus the Balanced Scorecard*. The School of Business, Stocholm University, Sweden.
- Kodwani, A. D. and Tiwari, R. (2007, January) *Human Resource Accounting – A New Dimension*. A Paper Presented at the Canadian Accounting Association (CAAA) Annual Conference.
- Kouhy, R., Vedd, R., Yoshikawa, T. and Innes, J. (2009). Human Resource Policies, Management Accounting and Organisational performance. *Journal of Human Resource Costing and Accounting*, 13 (3), 245-263.
- Lau, A. H. and Lau, H. S. (1978). Some Proposed Approaches for Writing Off Capitalized Human Resource Assets. *Journal of Accounting Research*, 16 (1), 80-102.
- Leffingwell, R. J. (2002). *Human Relations Accounting Moves Closer to Daily Use*, EBSCO Publishing, Michigan, USA.
- Lev, B. and Schwartz, A. (1971). On the use of the Economic Concept of Human Capital in Financial Statements. *Accounting Review*, 46 (1), 103-112.
- Lev, B. (2001). *Intangibles: Management, Measurement, and Reporting*. Washington, D.C.: Brookings Institution Press.
- Likert, R. (1967). *The Human Organisation-Its Management and value*. McGraw-Hill, New York.
- McKenzie, J.L., & Melling G.L. (2001). Skills-based Human Capital budgeting: A strategic initiative, not a financial exercise. *Cost Management*, 15 (3), 30.
- Narayan R. (2010). Human resource accounting: A new paradigm in the era of globalization. *The Asian Journal of Management Research*, 1 (1), 237-244.
- Newman, B. H. (1999). *Accounting recognition of Human Capital assets*, Pace University Press, New York.
- Okpala, P and Chidi, O. (2010). Human Capital Accounting and its relevance to stock investment decisions in Nigeria. *The European Journal of Economics, Finance and Administrative Science*, 21, 64-76.
- Pike, S., Rylander, A. & Roos, G. (2002). *Intellectual capital management and disclosure*. In Choo, C.W. & Bontis, N. (Eds.) *The Strategic management of intellectual capital and organizational knowledge*, Oxford University Press, New York.
- Raghav (2011). *Human Resources/Human Resources Accounting*. Retrieved from <http://en.allexperts.com/q/Human-Resources-2866/2011/2/Human-re>.
- Rahaman, M., Hossain, A. and Akter, T. (2013). Problems with Human Resource Accounting and possible solution. *Research Journal of Finance and Accounting*, 4 (18), 1-10.
- Ratti, M. (2012). An Analytical study of human resource accounting practices – An Indian experience. *Integral Review- Journal of Management*, 5(2), 37-45.
- Reeta (2015). Problems in adoption and application of human resource accounting: A survey. *International Journal of Management Research*, 3 (5), 150-159.
- Roslender, R. (2004). Accounting for Intellectual Capital: Rethinking its Theoretical Underpinnings. *Measuring Business Excellence*, 8 (1), 38-45.
- Roslender, R. and Fincham, R. (2001). Thinking critically about Intellectual Capital Accounting. *Accounting, Auditing & Accountability Journal*, 14 (4). 383-399.
- Sharma, S., and Shukla R.K. (2010). Application of human resources accounting in heavy Industries. *Journal of Physical Sciences, Engineering and Technology*, 1 (2), 131-133.
- Starovic, D., and Marr, B. (2003). *Understanding corporate value: Managing and reporting Intellectual Capital*. London: Chartered Institute of Management Accountants.

Steffy, B. D. and Maurer, S. D. (1988). Conceptualizing and Measuring the Economic Effectiveness of Human Resource Activities. *Academy of Management Review*, 13, 271-288.

Sveiby, K. E. (1997). *The new Organizational Wealth and Measuring Knowledge-Based Assets*, Berrett-Koehler Publisher, San Francisco, USA.

Toulson, P.K. and Dewe, P. (2004). Human Resource Accounting as a Measurement Tool. *Human Resource Management Journal*, 14 (2), 75-90.

Vatasoiu I., Cornescu A., and Motoni D. (2008). Human Resources Accounting – accounting for the most valuable asset of an enterprise. *Valahia University in Romania*, 5 (1), 925-931.

Verma S.H., and Dewe P.H. (2004). *Measuring the value of human resources*, based at the School of Management and Organizational Psychology, Birkbeck College, London, 2004.

Woodruff Jr., R. L. (1989). *Management Strategies and Organizational Behavior*. APH Publishing Co. New Delhi.

