

Human Resource Accounting: An Analysis Based on Models

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Abstract

The success of large organizations relies heavily on its Human Resources as it is the most valuable asset. Human Resources play a fundamental role in creating the uniqueness of most successful organizations. HRA is the process of identifying, measuring data about human resources and communicating this information to interested parties.

The main focus of the study is to highlight the major characteristics of HRA along with the practical benefits and difficulties in implementations and to discuss the various models used in the area of Human Resource Accounting. This study conceptual in nature and based on the secondary source of data and conclusion draw from the judgmental analysis. There are various models like present value, original cost model, historical cost model and other models and concluded that there are need of further improvements in these model and in this study possible recommendations for improvements presented.

Keywords: Human Resources, Human Resources Accounting, Models, Human Capital Investment.

Introduction

There are many branches of accounting and Human Resource Accounting (HRA) is a new branch of accounting. The traditional concept says that all expenditure on human capital formation is taken as a charge against the revenue of the period as it does not create any physical asset. Modern view is that cost incurred on any asset as human resources need to be capitalized as it provides benefits measureable in monetary terms. Current accounting principles virtually treat all labour costs, including wages, benefits, recruiting, and training, as expenses. This treatment is like commodities such as materials or supplies, which doesn't suit the accounting for human resources as an asset. And In an economy based on knowledge, people being knowledge holders become the most asset of an organization (Vatasoiu, et al, 2009). There is a lot of increasing interest of human capital.

It is widely recognised that human resources are no lesser important than other productive resources. However the recognition of importance of people in organisations as productive resources by the accountants is a recent origin.

The concept of human resource accounting can be better understood if one goes through someof the important definitions given by the competent authors in the accounting field.

1. The American Accounting Society Committee on Human Resource Accounting defines Human Resource Accounting as "the process of identifying and measuring data about humanresources and communicating this information to the interested parties". In simple terms, it is an extension of the accounting principles of matching costs and revenues and of organizing data to communicate relevant information in financial terms. Human Resources Accounting, thus, not only involves measurement of all the costs/ investments associated with the recruitment, placement, training and development of employees, but also the quantification of the economic value of the people in an organization (AAA, 1973).
2. Flamholtz et al (2002) defined human resource/capital accounting as accounting for people as an organizational resource. It involves measuring the costs incurred by organizations to recruit, select, hire, train and develop human assets. It also involves measuring the economic value of people to the organization (Okpala and Chidi, 2010).
3. Mr. Woodruff Jr. Vice President of R. G. Batty Corporation defines Human Resource Accounting as "an attempt to identify and report

4. investments made in human resources of an organization that are presently not accounted for in conventional accounting practice. Basically, it is an information system that tells the management what changes over time are occurring to the human resources of the business".
5. Baker defines Human Resource Accounting as "the term applied by the accountancy profession to quantify the cost and value of employees to their employing organization". Thus, human resources accounting may be defined as a process of accounting which identifies, quantifies and measures human resources for the use of management to cope up with the changes in its quantum and quality so that equilibrium could be achieved in between the required resources and the provided human resources (Johanson, et al, 1998).

Human Resource Accounting in India

The Indian Companies Act does not provide any scope for furnishing any significant information about human resources in financial statements. HRA has not been introduced so far in any legislation and thereby Human Resources are not yet recognized as „assets“ neither in the Balance sheet nor in the Annual Report of many of the Public or Private companies in India. Even in the new Companies Act 2013, there is no specific provision regarding the accounting and reporting requirement of Human Resource in Annual Report of Indian Companies. The Institute of Chartered Accountants of India (ICAI) has issued Accounting Standard (AS) on various aspects of accounting but it is not possible for ICAI to bring any exact accounting standard for measurement and reporting of human resource of an organisation. This was the greatest drawback relating to HRA.

In recent years some Private companies also have started to disclose information about their work force along with the financial statement. HRA has become a separate section of Annual accounts of Indian companies like Steel Authority of India Ltd., Minerals & Metals Trading Corporation Ltd., Oil India Ltd., Hindustan Unilever Ltd., Hindustan Zinc Ltd., Cement Corporation of India, ONGC, National Thermal Power Corporation Ltd., Hindustan Petroleum Corporation Ltd., and Indian Oil Corporation etc.

Review of Literature

Bo Hansson wrote an article on "Is it time to disclose information about human capital investments?" Firms' investments in training their employees constitute a substantial part of the overall investments for an average firm. Despite difficulties in accessing company based data on training, recent research has shown that these investments generate considerable gains for firms in terms of increased productivity and profitability. The absence of reliable, standardized information on training appears to hamper the ability of investors to stay informed about these investments. It is therefore argued from the current state of research that it might be time for mandatory disclosure of employee training in order to achieve a better allocation of resources in the capital market. Reliable information on company training

might not only benefit investors but also lead to a labor market that functions better. Training investments comprise a considerable amount of the overall investments for an average firm. Research in labor economics has shown that firms invest in training whether the training is useful to other (competing) firms or not. From the labor economic literature, we also know that part of the returns to training investments is captured by the employees. Despite difficulties in linking training with company performance measures, several recent studies have shown that these investments produce significant future gains for firms. The current state of sporadic and unregulated reporting of training investments makes it almost impossible for investors to stay informed about these investments. This deficiency is illustrated by the study of Bassi et al. (2004) in which training investments predict future stock returns. The mispricing of stocks reported in this study suggests that, because of lack of standards, investors are not able to penetrate information about training investments. This result further suggests that capital needed for training investments with above average returns is incorrectly allocated by the market. The allocation problem might not only be confined to capital markets; but maybe more importantly, the lack of information about training might also distort the allocation of human capital in the labor market. Individuals interested in continuously upgrading their human capital stock are not assisted to make an informed employment decision by the lack of information about these investments.

Ravindra Tiwari authored an article on "Human Resource Accounting-A New Dimension". Human resource accounting (HRA) is an attempt to identify, quantify and report investment made in Human resources of an organization that are not presently accounted for under conventional accounting practice.

Businesses which require a considerable creativity or science-based show a significant difference between market value and net book value. This difference is for intangible assets (including human skills). However the Human Resources are yet to get recognition in Balance Sheet. Businesses are not properly accounting for it in Books of Accounts. Auditor certifies in his report that balance sheet shows true position of business in spite of the fact that it is not showing the value of human resources. Researches in this field have been slow and researchers are not able to develop a model which is free from major limitations. Major limitation of existing models is that they are not able to identify two effects on Human Capital creation which is back bone of accounting.

Syed Abdulla Al Mamun had an article on "Human Resource Accounting Disclosure of Bangladeshi Companies and Its Association with Corporate Characteristics". This study reports the relationship between corporate characteristics and Human Resource Disclosure (HRAD) level in fifty five randomly selected companies of Bangladesh. The relationships were determined using a HRAD Index (HRADI) under a number of hypotheses. The results

of the study show that companies averagely disclose 25% of the total HRAD items. In this study, HRAD has been found significantly related with the size of the company, category of the company (financial or non-financial) and profitability. However, HDAD had no influence on the age of companies.

Md. Salimuddin and et.al. had written an article on "Intellectual Capital and Corporate Performance: A ValueCreation Efficiency Analysis". The study examined the association between intellectual capital and corporate performance of 15 manufacturing companies listed in Dhaka Stock Exchange, value creation indicator used is value added concept and intellectual capital is explained by market valuation, profitability and productivity. The study finds that there is no strong association between the studied variables except relation between a component of VAIC, CEE and the different measures of the firms' performance. Physical capital efficiency is the most significant variable related to profitability while human capital efficiency is of great importance in enhancing the profitability of the company.

Dilip Kumar Sen in his doctoral thesis on "Anatomy of Human Resource Measurement and Accounting" finds that HRA aids the decision making process and the representation of a complete picture of financial position of an organization by quantifying the value of human resources and disclosing the same in external financial reports. He suggested that HRA should come under the fold of GAPP and the IASB should take care of it. The banking industry may use HRA for both internal reporting to cater to human resource management decision making and external reporting to aid external users of financial statements. The banking companies should disclose HRA information in a narrative supplementary statement within the framework of conventional framework of external financial reporting.

Research Methodology

The process used to collect information and data for the purpose of making business decisions. The methodology may include publication research, interviews, surveys and other research techniques and could include both present and historical information.

Statement of The Problem

Traditional financial accounting considers only the fixed assets and current assets as assets and records this in the balance sheet of companies and annual reports, but the real asset, that is, the human assets are not taken into consideration. This accounting of human asset is done in human resource accounting. In developed countries, HRA is very well followed and is attached in their Annual reports. Although, there is much research about HRA in developed countries, there is a gap in the literature on this area in developing and fast developing countries. Till today many of the Indian companies do not follow the HRA. Therefore it is necessary to raise certain questions on the following 1) What is the nature and characteristics of HRA, 2) To examine whether HRA is useful to the management or any other users who make use of HRA, 3) How to analyze the perception

of management and employees, 4) How to determine the contribution of Human resource accounting on the financial statement of Indian companies. Hence the study is carried out.

Objectives of The Study

The objectives of this paper are as follows:

1. To identify the objectives, needs, benefits and limitations of human resource accounting.
2. To review the available models of HRA and focus their appropriateness.
3. To understand the steps of HRA in the context of business performance measurement.
4. To provide suggestions for developing such accounting practices in our business enterprises.

Objectives of HRA

The major objectives of HRA are as follows:

1. Identification of human resource value.
2. Investigation of the cognitive and behavioral impact of such information
3. It provides companies with information about the cost and value of its human resources.
4. It provides companies with a guide for human resource decisions about acquiring, allocating, developing, and maintaining human resources to attain cost-effectiveness.
5. It helps the management to monitor effectively the use of human resources.
6. It provides a sound and effective basis of human asset control, that is, whether the asset is appreciated, depleted or conserved.

Needs of HRA

Human Resource Accounting provides useful information to the management, financial analysts and employees.

1. Human Resource Accounting helps the management in utilizing the human resources effectively.
2. It helps in planning of human resources.
3. It assists in evaluating the expenditure incurred for imparting further education and training in employees in terms of the benefits derived by the firm.
4. It helps to find out causes of high labour turnover at various levels and taking preventive measures to contain it.
5. It helps in locating the real cause for low return on investment, like improper or underutilization of physical assets or human resource or both.
6. It helps in understanding and assessing the inner strength of an organization and helps the management to steer the company well through most adverse and unfavourable circumstances.
7. It provides valuable information for persons interested in making long term investment in the firm.
8. It helps employees in improving their performance and bargaining power. It makes each of them understand his contribution towards the betterment of the firm vis-à-vis the expenditure incurred by the firm on him.

Benefits of HRA

1. HRA provides useful information about the cost and value of human resources. It shows the

- strengths and weakness of the human resources. Thus, it provides useful information for Manpower Planning and Decision Making.
- HRA provides information for making policies about promotion, favorable working environment, job satisfaction of employees, etc.
 - HRA ensures good monitoring and the best utilization of human resources.
 - HRA helps the organisation to place the right man in the right post depending on his skills and abilities.
 - HRA shows that the organisation cares about the employees and their welfare. HRA increases the employee morale and it motivates them to work hard and achieve the objectives of the organization as employee feels that the organization cares about their welfare.
 - It attracts the best employees and managers to the organization as only reputed organisations conduct HRA. So, competent and capable people want to join these organisations.
 - A suitable training and development program for its employees and managers can be designed with the help of HRA
 - HRA provides valuable information to present and future investors. They can use this information to select the best company for investing their money.
 - The expenses related to the human organization are charged to current revenue instead of being treated as investments, to be amortized over a period of time, with the result that magnitude of net income is significantly distorted. This makes the assessment of firm and inter-firm comparison difficult.
 - The productivity and profitability of a firm largely depends on the contribution of human assets. Two firms having identical physical assets and operating in the same market may have different returns due to differences in human assets. If the value of human assets are ignored, the total valuation of the firm becomes difficult.
 - Expenses on recruitment, training, etc. are treated as expenses and written off against revenue under conventional accounting. All expenses on human resources are to be treated as investments, since the benefits are accrued over a period of time.

Limitations of HRA

Criticism, disadvantages and limitations of human resource accounting HRA are:-

- The valuation of human assets is based on the assumption that the employees are going to remain with the organisation for a specified period. However, this assumption is wrong because employee mobility is very high.
- With human resource accounting if the valuation is not done correctly or the results of the valuation are not used properly then it may lead to the dehumanization in the organisation.
- In the case of financial accounting, there are certain specified accounting standards which every organisation must follow. However, there are no standards for HRA. Each organisation has

its own standards for it. So, there are no uniform standards for it. Therefore, the HRA of two organisations cannot be compared.

- There are no specific and clear cut guidelines for 'cost' and 'value' of human resources of an organisation.
- The life of a human being is uncertain. So its value is also uncertain.
- The nature of amortization to be followed is yet to be fixed up.
- Several methods are available in valuing human resources but there is lack of their wide acceptance.

The Prerequisites of Human Resources Accounting

To apply HRA effectively in an organization, some resources and aspects must exist such as:

- Management support from all levels to facilitate the process.
- Time and both financial and human resources are needed for data collection, setting criteria, monitoring employees and going on in the process of HR valuing.
- Multi-functional team to work around in the process, as it needs variety of skills and way of thinking, and the process of measuring HR value is complicated.
- Modern style HR team that embrace new changes and help other adapt with it.
- Awareness campaigns from HR team to all employees about the valuation and to understand that they aren't going to be treated as objects, instead it's for their own sake.
- Development of knowledge based Methodologies for measuring.
- Measurements must be designed to be highly relevant to the strategic direction of the company (Verma & Dewe, 2004).
- The Company's size should be large, because it is not economical for small firms to apply it as it involves heavy costs (Narayan, 2010).
- Human resources information system should be developed that contains all personnel data, to be used in proper personnel administration (Narayan, 2010).

Human Resource Accounting Models

The key challenge of human capital accounting is the best way to value human capital. Various methods for accounting for human resources have emerged, used at measuring, developing and managing the human capital in an enterprise. None of these methods however is generally accepted. There are different approaches used as a basis for determining the monetary value of human resources (Dawson, 1994):

Present Value Model

In his present value method, Flamholtz et al (2002) suggests that people should be valued at the present value of expected future services to be rendered to the organization. Thus, they define individual's value to organization as the present worth of the set of future services the person is expected to provide during the period he/she

is anticipated to remain in the organization (Dawson, 1994).

Original Cost Model

Brumment suggests that costs of training and development which are parts of original costs should be capitalized. His argument is that training and development are expected to have ongoing benefits to the employee and to the organization and as such would provide future benefits over years. On the other hand, he suggests that other costs associated with recruitment should be expensed as the period costs. The original cost method has been implemented by few companies like R. G. Barry. Others include Atlanta Braves, Flying Tigers Corp., Upjohn Co., and Touche Ross & Co. (Paperman, 1977).

Historic Cost Model

The historic cost method is one of the more popular methods because of its similarities to normal accounting procedures, it calculates an employee's worth using the total historic costs associated with obtaining an employee. This method requires accruing the cost of the investment in the employee. One of the problems with this method is that decisions must be made about what costs to expense and what costs to capitalize. One way of deciding what to expense or capitalize is to classify human resource costs as either training or educational. With this approach, training cost would include anything associated with the current job, and it would be expensed. Educational costs would be anything associated to the preparation or advancement, and these costs would be capitalized. Another approach that could be used includes all the costs of recruiting, testing, training, and development. The decision of whether to capitalize or expense is based on how long the cost will benefit the company. If the cost will lead to a benefit for longer than twelve months, then the cost will be capitalized. Ebersberger notes that it is important with this method that the users of the information do not view it incorrectly. Historic costs do not represent the worth of an employee; they are merely an assessment of past costs. Instead, the benefits from historic cost allow rate of return on investments and turnover costs to be computed. There are also other problems with the historic cost method. One problem is that anything that an employee learns outside the job will not be included in the costs. Another limitation is that employees may apply training at different levels. Due to the inability of historic cost to aid in making decisions concerning the present and future, some prefer to use the replacement cost approach (Dawson, 1994).

Replacement Cost Model

Replacement cost method by Likert suggests that the cost of employee should be valued based on what the organization would have to sacrifice to replace an employee if he/she leaves the organization. This includes the cost attributable to the turnover of a present employee, as well as the costs of acquiring and developing a replacement. It calculates an employee worth using the replacement costs associated with obtaining an employee. Replacement costs can be defined as the costs that

would be encountered today to replace current human resources. Replacement costs include three types of costs. Ebersberger added that they include the cost of hiring new employees for existing jobs, the cost of training new employees to the proper level, and the cost of moving employees to new positions or out of the company. One benefit of this model is that it is based on solid fact; the costs of recruiting and training. One problem with replacement cost approach is that does not consider the work ethics of employees. Replacement costs are based on the current value of an employee to a company. This value is the present value of the future services that an employee is expected to provide (Dawson, 1994).

Total Organizational Model

Dawson suggests that the total organizational model takes the value of the company and divides it between the different inputs to the company, and then it divides the amount associated with labour between the different clusters of employees in the company (Dawson, 1994).

Opportunity Cost Model

This model of HRA seeks to measure the value of human resources on the basis of common concept of opportunity cost. His model was proposed by Hekimian and Jones to overcome the limitations of replacement cost model. It attempts to estimate the value of human resources by establishing an internal labour market in an organisation through the process of competitive bidding. Under this model all managers of profit centres are encouraged to bid for any scarce employee they want. This is largely artificial method involving the concept of the competitive bidding process. Under this system, profit-centre managers are encouraged to bid for scarce employees, the successful bid being included in the organisation's human investment calculations.

Economic Cost Model

The economic cost model comes from the human capital theories. Economic value refers to the appropriately discounted amount of net cash inflows generated by the human resources of a firm over their economic service lives. Some authors refer to the economic value method as the present value measuring technique or use the term in conjunction with the opportunity cost approach.

Stochastic Reward Valuation Model

The last approach is the most complex. It is the stochastic rewards valuation models. This approach focuses on HRA value rather than HRA cost, it calculates the value of an employee — as the discounted sum of the values of the service states that the individual will occupy during his/her career with the organization.

Lev and Schwartz Model

Based upon the economic concept of value this model was suggested by Baruch Lev and Aba Schwartz. According to them, the value of human capital embodied in a person of age X is the present value of his remaining earnings from employments. They have given the following formula for calculating the value of an individual:

$$V_x = \sum \frac{I(t)}{(1+r)^{T-x}}$$

Where,

V_x = the value of an individual X years old.

$I(t)$ = the individuals annual earnings upto retirement.

r = a discount rate specific to a person.

T = retirement age.

The model of HRA given by Lev and Schwartz ignored the possibility of death prior to retirement age. The model given by Lev and Schwartz can be considered as an improvement over the cost models as it seeks to value the human resources of an organisation on the basis of the economic value of employees of total organisation.

The model suffers from certain deficiencies as it ignores the individual's value to an organisation depends upon the role in which an individual is placed in addition to his qualities, traits and skills; employees change their roles during their career due to promotion, transfer etc. and an individual may leave the organisation for reasons other than death and retirement.

Goodwill Method

This model was developed by Harmonson and was also called the Harmonson Model. According to this method the additional profit earned by an organization during a particular period of time was compared to the industry's average rate.

HR value was measured by the following formula:

HR value = Goodwill

X Amount invested in HR/ Total investment

This model was criticized by the critics on the ground that the additional profits or revenues generated by an organisation during a particular period may be influenced by other external variables and could not be linked to human resources alone. Also this method could not be used unless all the variables and relationships that affected the company's goodwill were correctly defined.

Steps in Accounting for Human Resource

The first step is to determine what HR costs are to be capitalized. This is essentially matter of classification HR costs into asset and expense components. Cost should be treated as assets if the expected benefits from them relate to future time periods. It has future service potential.

The second step is to amortize the cost incurred by organization on its employees for recruiting, hiring, orienting, familiarizing, training and developing them. It assets service carrier, which is consumed during a particular accounting period. The main purpose behind amortization of human assets cost is to match the consumption of a human assets services with the utility derived.

The third step is to appreciate the value of organization employees every year at a particular percentage rate. This is needed because human resources appreciate in value because of their experience over years. The more an employee ages, the more he/she gains experience and value.

The fourth step is to adjust human assets accounts. When a material change in an

organization employees expected working life occurs (because of any of the factors, namely, bad health, early retirement plan, technological obsolescence), the employee assets needs to be adjusted. This amortization of human assets is analogous to a write-off of physical assets. In certain cases, adjustment of human assets accounts becomes necessary.

Conclusion

In the era of globalization and cost cuts, the HRA is a new concept for developing countries but it started gaining acceptance day by day. The usefulness of HRA has also been acclaimed in the literature but unfortunately, its application as not flourished throughout the world. The International Accounting Standards Board (IASB), and the Accounting Standards Board (ASB), have not been able to formulate any specific accounting standards on measurement and reporting of cost and value of HR of an organization. Hence, considering the paramount importance of HRA, proper initiation should be taken by the Government as well as Professional Boards at the National and International levels in respect of formulation of specific accounting standard and suitable valuation models on the measurement and reporting of the value of HR.

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