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Recognition, Measurement and Accounting Treatment of Human Resource Accounting

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Abstract

Human Resource Accounting (HRA) involves accounting for costs related to human resources as assets as opposed to traditional accounting. Since the beginning of globalization of business and services, human elements are becoming more important input for the success of every organization. The strong growth of international financial reporting standards (IFRS) encourages the consideration of alternative measurement and reporting standards and lends support to the possibility that future financial reports will include non-traditional measurements such as the value of human resources using HRA methods. It helps the management to frame policies for human resources of their organizations. HRA is a process of identifying and measuring data about human resources. It will help to charge human resource investment over a period of time. It is not a new concept in the arena of business world. Economists consider human capital as a production factor, and they explore different ways of measuring its investment. Now accountants are recognizing human resource investment as an asset. This study is built upon Recognition, Measurement and Accounting Treatment of Human Resource Accounting in different organizations.

Keywords: *Human Resource Accounting, Human Resource Accounting Model, Measurements of HRA, Methods of Valuation of Human Assets, Accounting Treatment*

1. Introduction

The past few decades have witnessed a global transition from manufacturing to service based economies. Human elements are becoming more important input for the success of any

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corporate enterprise. It helps the management to frame policies for human resources. Human resource accounting is a process of identifying and measuring data about human resources. It means accounting for people as an organizational resource. It involves measuring the cost incurred by an organization to recruit, select, hire, train and develop human assets and also involves measuring the economic value of people in the organization. It is concerned with measurement of cost and value of people in the organization. American Accounting Association (1980) has defined human resource accounting as follows: "Human resource accounting is the process of identifying and measuring data about human resources and communicating this information to interested parties"

Thus, human resource accounting is primarily involved in measuring the various aspects related to human assets. Its basic purpose is to facilitate the effective management of human resources by providing information to acquire, develop, retain, utilize, and evaluate human resources.

2. Objectives of the Study

i. To review the available models of HRA and focus their appropriateness.
ii. To highlight the major characteristics of HRA along with the practical difficulties in implementations.
iii. To understand the needs and significance of HRA in the context of business performance measurement.
iv. To provide suggestions for developing such accounting practices in our business enterprises.

2.1. HRA – Objectives

The more specific objectives of human resources accounting are as follows:

i. To provide cost-value data for managerial decision regarding acquiring, developing, allocating, and maintaining human resources so as to attain cost-effective organizational objectives.
ii. To provide information to monitor the effectiveness of human resource utilization.
iii. To provide information for determining the status of human asset whether it is conserved properly; it is appreciating or depleting.
iv. To assist in the development of effective human resource management practices by classifying the financial sequences of these practices.

3. Rationale of the Study

Management of human resources in any organizations is very much important from accounting point of view. Valuation of human resources, recording the valuation in accounts and fair disclosure of such information in financial statements are the demand of the stakeholders in the context of enhancing managerial performance and employees' productivity. Investment in developing human resources is not revenue expenditure. Its impact on developing the capability of employees provides benefits for a long period. There is a genuine need for reliable and complete information that can be used in improving and evaluating human resource management. HRA is actually a part of social accounting in which accountants need to apply their specialized abilities to help find solutions to our social problems. We know that accounting is a science of measurement, analysis and communication. The designing of proper accounting system for providing information to the stakeholders is also a difficult task. Capitalizing human resource costs is conceptually more valid than the expensing approach. The information concerning human assets is more relevant to a great variety of decisions made by external and internal users. Accounting for human asset constitutes an explicit recognition of the premise that people are valuable organizational resources and an integral part of a mix of resources. This study will be helpful for the different users of accounting information for their day to day decision making.

4. Literature Review

During the two last decades, several advocates of HRA, including Herman & Mitchell (2008), Flamholtz et al. (2003), PekinOgan (1988), Flamholtz (2004), Lev & Schwartz (1971), Elias (1972), Hendricks (1976) and others have suggested that HRA could benefit external users of financial statements. External decision makers must know the changes in human assets in order to evaluate properly assets and income. The conventional accounting profit may be misstated and the asset base distorted, if the condition of human assets changes during the period, (Flamholtz, 1999).

Herman Theeke, John B. Mitchell (2008) discussed how reporting under a human resource liability paradigm fits into the traditional accounting framework of contingent liabilities; examine the financial effects of such reporting on market valuation and internal planning; and explore measurement of human resource liabilities. From reviews of financial effects of human resource liability reporting the research logically extends those results to support the proposed paradigm. The paper provides support for the feasibility and need to adopt a human resource liability paradigm for valuing, reporting and managing human resources.

Flamholtz et al. (2003) utilized the HRA measure of expected realizable value, and found that employees' participation in a management development program increased the value of the individuals to the firm. In addition the authors noted that the HRA measures provided upper level management with an alternative accounting system to measure the cost and value of people to an organization. Thus HRA represented either a paradigm or way of viewing human resource decisions, and the set of measures for quantifying the effects of human resource management strategies upon the cost and value of people as organizational resources.

Pekin Ogan (1988) reported the results of a field experiment designed to assess the impact of HRA information on lay off decisions made by manager. The findings of this study indicates that HRA information does make a difference in personnel layoff decisions and enables managers to increase their level of confidence regarding decisions of this sort.

Tomassini (1977) provided to a sample comprising of accounting students, traditional financial information and information containing human resources accounting. HRA information led to remarkable differences in decision-making.

Hendricks (1976) performed a study using accounting and finance students as subjects. His simulated investors made two stock investment/capital allocation decisions, one with and one without human resource cost data. In this research, HRA had a meaningful impact on adopted decisions statistically.

Schwan (1976) considered the effects of human resource cost measures on banker decision-making. He found that the inclusion of HRA data in published financial statements resulted in, one, significantly different ratings of management's preparedness to meet future challenges and opportunities and, two, statistically different predictions of a firm's net income.

Acland (1976) selected a sample comprising of 500 financial analysts and provided financial reports for some of them and reports containing behavioral indexes to some other analysts so that they can make decisions about investments in one or two companies. Insertion of behavioral indexes caused that some analysts would make decision differently from those who had only financial information. This difference was visible in the analysts who had received HRA information with behavioral indexes. Research was performed about relative impact of disclosure of HRA monetary information versus non-monetary information.

Nabil Elias (1972) provided 2 groups of financial reports (one, traditional report and another, reports containing HRA information) in his research to the sample including accounting students, financial analysts and accountants. Research results showed that HRA information had meaningful impact on decisions statistically, although the relationship between HRA information and the adopted decisions was not strong.

5. Methods and Procedures of the Study

The study is exploratory in nature based on extensive review of relevant studies done earlier and comparative pictures of the various aspects of HRA have been discussed to arrive at concluding remarks.

6. Human Resource Accounting and International Financial Reporting Standards

Since 2001, the International Accounting Standards Board (IASB) has been developing and promulgating the IFRS (International Accounting Standards Board, 2009). Prior to 2001, the International Accounting Standards Committee (IASC) issued International Accounting Standards (IAS), which were adopted initially by the IASB when it replaced the IASC. While the IFRS do not currently have standards requiring HRA, it could be argued that they are moving closer to providing more flexible approaches to accounting measurements and reporting. For example, the international standards IAS 38 Intangible Assets and IFRS 3 on Business Combinations allows for the recognition of the intangible asset goodwill, which indicates a willingness to allow for valuation of assets that are not traditional tangible assets, such as human resources. The valuation of goodwill often involves complex assessments of fair values as well as periodic reassessments to determine whether the fair values have become impaired. These more difficult and challenging measurements of goodwill and other fair values are similar to some of the challenges documented in the past related to the measurement of human resources, particularly when using the value approach to HRA. Thus, the movement toward fair value accounting saw in recent years for both U.S.GAAP as well as for international standards indicates a more sophisticated approach to the measurement of assets, tangible as well as intangible. This might suggest a willingness to recognize the need for, and consider the measurement and use of HRA in future external financial reporting.

7. Human Resource Accounting in Managerial Reporting and Decision-Making

In addition to external financial reporting, HRA may be useful as a managerial tool to aid in making managerial decisions that will benefit the long-run strategic goals and profitability of the company. As opposed to external financial reporting, managerial reporting does not require adherence to a strict set of GAAP in specific financial statements in acceptable format reported to the public (Bullen, 2007, p. 89). However even if human assets are not reported on the face of external financial statements, HRA can play a crucial role in internal managerial decision making, and HRA measures can be used to show that investments in a company’s human resources may result in long-term profit for the company (Bullen, 2007, p. 89).When managers go through the process of HRA measurement treating human resources as capital assets, they are more likely to make decisions that treat the company’s employees as long-term investments of the company.

8. Human Resource Valuation Methods and Models

Human resources have been given much priority in the present service sector since identifies importance. In order to quantify the talent, skills and knowledge of employees or workforce various models were suggested. Some of the models to valuation of Human Resources are:

8.1. Historical Cost Method

This method was developed by William C. Pyle and adopted in 1969 by R.G. Barry Corporation, a leisure footwear company in Columbus, Ohio, USA. Historical cost method calculates actual cost incurred on recruiting, selecting, hiring and training and development of human resource (HR) which is equal to the value of workforce. The economic value of HR increases overtime and they gain experience. However, according to this model, the capital cost of HR decreases through amortization.

8.2. Replacement Cost Model

According to this model the value of employee is estimated as the cost of replacement with a new employee of equivalent ability and efficiency. There are two costs, individual replacement cost and positional replacement cost in this model. Cost of recruiting, selecting, training and development and familiarization cost are account in individual replacement cost. When an employee present position to another or leave the organization cost of moving, vacancy carrying and other relevant costs reflect in individual replacement cost. Positional replacement cost refers to the cost of filling different position in an organization and this model is highly subjective in nature.

8.3 Standard Cost

Instead of using historical or replacement cost, many companies use standard cost for the valuation of human assets just as it is used for physical and financial assets. For using standard cost, employees of an organization are categorized into different groups based on their hierarchical positions. Standard cost is fixed for each category of employees and their value is calculated. This method is simple but does not take into account differences in employees put in the same group. In many cases, these differences may be quite vital.

8.4 Present Value of Future Earnings

In this method, the future earnings of various groups of employees are estimated up to the age of their retirement and are discounted at a predetermined rate to obtain the present value of such earnings. This method is similar to the present value of future earnings used in the case of financial assets. However, this method does not give correct value of human assets as it does not measure their contributions to achieving organizational effectiveness.

8.5 Expected Realizable Value

The above methods discussed so far are based on cost consideration. Therefore, these methods may provide information for record purpose but do not reflect the true value of human assets. As against these methods, expected realizable value is based on the assumption, and this is true also. That there is no direct relationship between costs incurred on an individual and his value to the organization at a particular point of time. An individual’s value to the organization can be defined as the present worth of the set of future services that he is expected to provide during the period he remains in the organization. Flamholtz has given the variables affecting an individual's expected realizable value (IERV): individual conditional values and his likelihood of remaining in the organization. The former is a function of the individual's abilities and activation level, while the latter is a function of such variable as job satisfaction, commitment, motivation, and other factors.

8.6 Opportunity Cost Model

Opportunity cost is the maximum alternative earning that is earning if the productive capacity or asset is put to some alternative use. Quantifying HR value is difficult under this method. Because alternative use of HR within the organization is restricted and at the same time the use may not be identifiable in the real industrial environment.

8.7 Stochastic Rewards Model

Stochastic Rewards Model was developed by Eric G. Flamholtz. This model identified some major variables that are help to determine the value of an individual to the organization. He determined the movement of employees from one organization to another as Stochastic Process. Eric G. Flamholtz suggested different approaches to assess the value of HR of the company in this model. In order to quantify human resource value the period any employee work in the organization, role of employee and value of present position are determined and discounted expedited service rewards. To be precise an employee value is the product of individual conditional value and the profit that the individual offers to the organization in his/her service life. The conditional value comprises of productivity, transferability and prompt ability, skills and activation levels are also the determinants of an individual's conditional value. Flamholtz has measured the expected realizable value of an individual as

$$E(RV) = \sum_{i=1}^{n} y \left[\!\left[\sum_{i=1}^{n} \left(R_t * \frac{P(R_t)}{(1+r)^t} \right) \right]\!\right]$$

Where E (RV) = expected realizable value

Rt = Value derived by an organization in each possible sate

P (Rt) = Probability that the organization will have Rt

t = time

n = state of exit

r = discount rate

i = 1, 2, 3……

8.8 Sk. chakra borty Model

Sk. Chakraborty of Indian institute of management Calcutta was the first Indian to attempt at valuation of resources. This model was similar to historical cost model, he noticed the cost of recruiting, learning, selection, training and development of each employee should considered for acquisition cost method of valuation and be treated as different revenue expenditure, this is subject to gradual written off. The balance, not the written off amount, should be shown separately in the balance sheet under the head of investment. To derive the present value of HR average feature tenure of employment of employee`s and average future salary should discounted at an appropriate rate, it is shown as investment in the asset side of balance sheet which is to be added to the capital employed in the liability side. Separate valuation can be made for managerial and non- managerial employee. The discount calculate the present value should take as expected average after tax return on capital employed, taken from the conventional balance sheet. The chakraborty model basically considered a combination of acquisition method and present value.

$$V = \sum_{i=1}^{n} \left\{ N_i * \frac{AS_i}{(1+k)^n} \right\} + AC$$

Where

V = Value of a category of employee

N = Number of employees

AS = average annual pay

K = after tax return on capital employed

i = 1, 2, 3……n years (average tenure of employed

8.9 Lev and Schwartz compensation model

This model developed in 1971 by Lev and Schwartz for valuing human resources. Lev and Schwartz model is popular for calculating the value of HR used by public sector like SAIL and BHEL. It is based future earnings of an employee till his retirement. According to the model value of human assets is estimated for a person at a given age which is the present value of his remaining future earning from his employment and this represented by the following.

$$V_r = \sum_{t=r}^{T} \left\{ \frac{I(t)}{(1+r)^{t-r}} \right\}$$

Where

Vr = value of an individual or r years old

I (t) = the individual’s annual earnings up to retirements age

T = retirement age

r = discount rate specific to the person

t = active year of service

The model categorized whole work force in the various homogenous groups such as unskilled, semi-skilled, technical staff, managerial staff and so on and also into different age groups. By using the formula calculated average earnings for different classes and age groups and present value of HR. Lev & Schwartz also recommended the use of cost of capital of the organizations for the purpose of discounting the future earnings of the employees to arrive at the present value. They recognized individual employee's economic value to the organization.

9. Accounting Treatment of Human Resources Accounting

The accounting treatment of human resources under various methods can be done in three parts

9.1 Real Capital Cost Part

i. All capital cost associated with the human resources, such as – training cost, should be capitalized by

Human resources capital (HRC) Dr.
    Bank Cr.

ii. And the cost should be written off during the working life of the employee, as-

Income statement Dr.
    Human resources capital (HRC) Cr.

9.2 Present Value of Future Salary/ Wage Payment

i. At the time of capitalizing value of human resource according to Lev & Schwartz valuation (weather at the year-end or at the during year), whenever we hire human asset or company want to begin accounting for human asset –

Human resources capital (HRC) Dr.
    Human Resources reserve Cr.

ii. At the time of Salary Payment-

Salary Dr.
    Cash Cr.

iii. At the year-end we should calculate HRC value according to Lev & Schwartz model. Now difference of HRC in books and HRC now calculated shall be debited in the form of HRR and balance amount should be debited in income statement to close salary-

Human resources reserve Dr.
Income Statement Dr.
    Salary Cr.

iv. If difference is more than salary then balance should be credited to P&L A/C. Now amount debited in HRR should be charged in form of depreciation/amortization from income statement-

Income Statement Dr.

Human Resource Capital Cr.

9.3 Suggested use of Fund for HRC

i. Fund for HRC should be used only for some specific purpose such as- training of employees, writing off of abnormal losses caused due to leaving/death of employee, welfare of employees so that they may be more satisfied etc. entry for transferring will be-

Income Statement Dr.

Fund for HRC Cr.

ii. Entry for capitalization of human resource with the same amount will be-

HRC Dr.

Human Resource Adjustment Cr.

iii. In case of abnormal losses generate for many years after leaving/death of employee these losses can be written off from fund over these years. Entry will be-

Fund for HRC Dr.

Income Statement Cr.

iv. Reverse entry at the time of leaving/death of employee will be-

Human Resource Adjustment Dr.

HRC Cr.

Amount capitalized in previous year (in this part) should be basis for incentive for current year.

10. Findings and Observations

10.1 Benefits of HRA

Labor is the father of wealth and it should be taken in to consideration in estimating wealth. Cost incurred on any human resources need to be capitalized as it gives benefits measurable in monetary terms. The major benefits of HRA are as follows

i. It develops effective managerial decision making.
ii. It enhances the quality of management.
iii. It prevents misuse of human resources.

iv. It helps the efficient allocation of resources.
v. It increases human asset productivity.
vi. It improves their morale, cooperation, job satisfaction and creativity.
vii. It develops human efficiency.
viii. It influences the individual behavior, attitude and thinking in desired direction.
ix. It helps in long term investment decisions.
x. It facilitates good performance measurement assessing strengths and shortcomings of an organization.
xi. The success of an organization depends on quality working force at all levels. It develops business success rapidly.
xii. It provides good basis of human asset control.
xiii. It helps the development of management principles.
xiv. It ensures good monitoring of effective uses of human resources.

10.2 Constraints of HRA

i. There is no specific guideline for measuring the cost and value of human resources.
ii. Uncertainty of human resources creates uncertainty in its valuation in a realistic approach.
iii. Sometimes discouraging attitude of human resources may frustrate them leading to low productivity.
iv. While valuing the human assets, demand for rewards and compensation might be higher.
v. The nature of amortization to be followed is yet to be fixed up.
vi. Tax laws do not recognize human assets and in that sense it might be theoretical only.
vii. Several methods are available in valuing human resources but there is lack of their wide acceptance.
viii. There is need for developing suitable methods for its valuation.
ix. IAS/IFRS/BASs does not provide any guidelines for the treatment of HRA approach.

10.3 HR Treatment in Financial Accounting Perspective

i. Identify the asset's cost and estimate the period of amortization.

ii. There is difference in opinion in calculating intangible assets, deferred charges in international accounting literature.

10.4 Managerial Accounting Perspective

There are good uses of acquisition costs and learning costs, substitution costs, opportunity costs and replacement costs, economic value models, standard cost method, competitive bidding method, non-monetary measures etc.

10.5 Measurement of HRA

The approaches used for measuring HR are mainly cost approach and the economic value approach. The cost approach may be historical cost and replacement cost basis. The historical cost of human resources is the sacrifice that is made to acquire and develop the resource. Cost of recruiting, selection, hiring, placement and orientation etc. are included here. Salaries, time spent by the supervisors for induction and training are also included. The replacement cost is the cost of human resources to be spent for existing employees, are to be replaced. Costs of recruiting, selection, hiring, placement, orientation on the job training might be incurred to replace human assets. Other cost methods are standard cost method and competitive bidding method. In the standard cost method, standard costs related to recruitment, hiring, training and development are fixed up annually. The total costs show the worth of human resources.

10.6 Steps in Accounting for Human Resources

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 an organization on its employees for recruiting, hiring, orienting, familiarizing, training and developing them. It involves measurement of that portion of the human 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 heath, 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.

10.7 Recording of Costs Related to Human Resources

It has already been pointed out earlier that (1)social cost (2) acquisition cost including costs of recruitment, hiring, selection and placement of employees,(3) orientation and on-the-job training costs, including salaries paid to the employees during their probationary period, (4)formal training development costs of employees,(5) separation costs of employees, (6) costs incurred for gravid female employees, (7) rewards for extra –ordinary performances and academic attainments and (8) extra –ordinary health costs needed to be "assetized" since the benefits from them are expected to be derived for more than one year. To fulfill one vital accounting principle –"matching of costs and revenues" one is required to "assetize" the eight categories of costs mentioned above. On the other hand, all the elements of "maintenance expenses" need to be treated as revenue expenses.

11. Conclusions

Human resources are the energies, skills and knowledge of people which are applied to the production of goods or rendering useful services. It is the method of identifying and measuring data about human resources and communicating the information to interested persons. While valuing human resources, emphasis can be given on acquisition costs, substitution costs, opportunity costs, replacement costs, economic value models, standard cost method, non-monetary measures etc. As per accounting standards disclosure of human resource accounting information follows historical cost approach to human asset valuation but this fails to show current cost. This is why economic value approach is more relevant. Still true cost of capital for discounting the net cash flows related to human assets is also difficult to find out. As a result replacement cost valuation method and non-monetary behavioral approach might be suitable for valuation of human resources of an organization. Our Companies Act 1994 does not provide for valuation of human resources. As result disclosure of such information has become voluntary to our business management. There is need to prescribe the specific provisions for valuing human resources and disclosing the details of investment in human assets in the form of training and development expenses, salaries and other allowances etc. through annual reports.

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