HUMAN RESOURCE ACCOUNTING –AN OVERVIEW (A DESCRIPTION OF VARIOUS HUMAN RESOURCE ACCOUNTING METHODS AND MODELS)

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Abstract

Human Resource factor is very crucial, important and sensitive factor of production. Even though human resources are the most important element of the business process, their value is not shown among the assets in a traditional statement of financial position. Human resources are truly the most valuable resources a firm can possess. Its accounting has very high significance, not only for the management, but also for the analyst and even for employees. Keeping this in mind our present article tried to touch some aspects of human resource accounting and to go through the different approaches for valuation of human resources.

1. Inroduction

It has always been argued by the corporate managers that the employees of an organization constitute a valuable resource. In the classical organization human beings are considered as an appendage to the machine. The success of an organization depends upon the effective and meaningful utilization of men, materials and money. Infact, business is a system which consists of elements and interconnection between elements. Value arises because each of the elements performs various functions and because these functions interact. Even though human resources are the most important element of the business process, their value is not shown among the assets in a traditional statement of financial position.

The importance of human resource associated with an organization has been well recognized now. The human resource may be of skilled type or unskilled type. If the human force of an organization has sincerity and

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efficiency, the organization is likely to have a competitive edge over others irrespective the type of human resources.

Human resource at present is considered to be valuable asset to an organization. Successful business organizations built on productive employees who impart knowledge, skill, talents and aptitudes to the best of their ability.

Likert (1967), Johnson and Kaplan (1987) said that absence of human resource as an asset in the balance sheet violates the accrual principles of disclosure, underrates the firms net worth and current income and there by not reflect the true and fair view of an organization.

2. Significance of Human Resources Accounting:

Though HRA is intended primarily to be used as a managerial tool, it has significant use for present and potential investors and other users of financial statements. Human resource valuation provides the management with information about changes in the structure of its labour force. It helps the potential investors and other users in making long term investment decisions.

Human Resource Accounting attempts to highlight the importance of employees by quantifying their cost or value to the organization. It has immense utility for both the management and other users of financial information.

But in spite of this, study of human resource of an organization had not been given required attention by management thinkers for years. Even today when a good deal of work has been done in this field, it is very unfortunate that there is not any generally accepted method either for valuation of human resource or for their recording in the books of accounts.

Instead of all problems, some organizations are making valuation of their human resource and giving places in their annual reports. But there is as yet no universally accepted method for valuation and when we try to make a comparative study of human resources of two organizations we face problem because different organizations used different approaches for valuation of human resource.

3. Concept of Human Resource Accounting:

The concept of human capital has been exercising the minds of economists, accountants and others for a long time. One of the first reference to the concept appeared in Sir William Petty's 'Political Arithmetic.' Sir Petty Simply took stock of capital of the United States of America without having any hypothesis in his mind for substantiation. Adam Smith also stressed the importance of human element at various points in 'The Wealth of Nations'. Alfred Marshall also emphasized that the most valuable of all capital is that invested in human being.

Theodore Schultz discussed this issue in great depth in 1960 in a paper in the Journal of Political Economy. After this a supplement volume on "Investment in human beings" was published by the Journal of Political Economy. He concentrated on the investment in human resources through education.

The credit for recognizing the value of human resources as an 'asset' goes to William Paton in 1920 when he commented that "in a business well organized and loyal personnel may be more important asset than a stock of merchandise." Through Paton considered human beings as assets of the organization, it was Rensis Likert, Social Psychologist, The Institute for social research, University of Michigan, who first used the term 'human asset' in the late 1950, a term since replaced by human resources. So it was originally developed by him.

In a literal sense 'Human Resource Accounting' means measuring and recording the cost and value of human resources of an organization.

The American Accounting Association defines Human Resource Accounting as: "the process of identifying and measuring data about human resources and communicating this information to interested parties."

Robert L. Woodruff has defined Human Resource Accounting as: "the identification, accumulation and dissemination of information about human resources in dollar terms."

Eric Flamholtz defines Human Resource accounting as: "Accounting for people as an organizational resource. It involves measuring the costs incurred by business firms and other organization to recruit, select, hire, train and develop human assets. It also involves measuring the economic value of people to the organization."

Thus according to the above definitions, we may state that human resource accounting is concerned with:

* Identification of data regarding human resources of an organization.

* Measurement of the data in terms of cost and value.
* communicating the results to the decision makers.

4. Objectives of HRA

The objective of HRA is to inform the general public about human capital measures taken by the enterprises and their effect on human resources. How far the enterprises are successful in fulfilling the human contributions also come to light through HRA.

* To facilitates effective and efficient management of human resources.

* To furnish cost value information for making management decision about acquiring, allocating, developing and maintaining human resources in order to obtain cost effective organizational objectives.

* To provide information of changes in the structure of manpower to the management.

* To provide qualitative information on human resources.

* To provide more relevant and timely information to the interested parties.

* To provide a sound and effective basis of asset control.

* To knows whether the human resources are properly utilized and allocated.

* To allow management personnel to monitor effectively the use of human resources.

* To evaluate the return on investment on human capital.

5. Valuation of Human Resources –Different Approaches

Two major techniques of accounting for human resources have been developed:

(a) Human Resource Cost Accounting (HRCA)
(b) Human resource value Accounting (HRVA)

(a) HRCA:

HRCA involves the Capitalization of expenditure incurred on the acquisition and development of human resources, amortizing such costs over a period and hence reporting the net investment in human resources in the financial statements. The cost approach is further broken down into the following methods.

* **Historical Cost Approach**: This approach was developed by Brummet, Flamholtz and Pyle. In this approach actual cost of recruiting, selecting, hiring, training, placing and developing the employees are capitalized and written off over his length of service for which the benefits are expected to flow to the organization. If an employee passed away or places the organization within his

tenure of service, the remaining value is charged off against current revenue. This method does not recognize the changes in the value of human asset and underrates the real value of those resources and treat such expenditure like deferred revenue expenditure. The major drawback of this method is that it does not consider the aggregate value of potential services of employees. Also due to amortization the value of human asset goes on decreasing but in actual practice the value should increase with time due to experience.

* **Replacement Cost Approach**: This method was developed by Rensis Likert and Eric Flamholtz. In this method the cost that would have to be incurred in order to replace an individual with someone else possessing the same capabilities is to be calculated. Replacement cost may be of two types:

-**Positional Replacement Cost**: This refers to the sacrifice that would have to be incurred today to replace a person occupying a specified position with a substitute capable of rendering equivalent services in the given position.

-**Personal Replacing Cost**: This refers to replace a specific person. Under this method the cost of replacing a persons by another person is to be measured who can render equivalent services in all the positions that the former is capable of occupying.

A disadvantage of replacement cost is that it may not always be possible to obtain such a measure for a particular employee. It is difficult to find identical replacement of existing resources in actual practice.

***Opportunity cost approach**: Hekimian and Jones have proposed opportunity cost approach to the valuation of human resources as an alternative to the replacement cost approach. Opportunity cost refers to the benefits forgone in order to use a resource in an alternative way.

The concept of opportunity cost as applied to human resource measurement resorts to the process of competitive bidding. In a decentralized organization, which uses profit or investment center oriented management approach, the division managers are encouraged to bid for the services of valuable employees currently working in other divisions. The bid price will be included in the denominator for the calculation of return on investment. Since the maximum amount that a manager would be willing to bid for a particular employee or set of employees would be limited by the benefits he expects to receive from that employees services, and the target rate of return on both physical and human capital employed. It can be anticipated that the highest bidder in any given situation would be the manager who could make the most profitable use of the employee's services.

This process of competitive bidding will provide, a quantitative measurement of human resources encouraging their optimal utilization. Those employees whose services are not scarce and hence readily available from outside will command zero value as per this approach.

***Standard Cost Approach**: This approach was given by David Watson. In this method the standard cost of recruiting, hiring, training and development is accumulated every year for each grade of employees. This method is found suitable for control purposes and variance analysis.

(b) Human Resource Value Approach:

The value of an employee to an organization refers to the services an organization will realize from that employee in future. HRVA discounts employees' future services to arrive at the present value of an individual to an organization. Since an organization does not own an employee, or even know employee's career movement intention, it cannot determine the amount of services with certainty which it expects to realize. Therefore, it can only determine the expected future services and discount them to arrive at expected value of an individual to an organization.

6. Valuation Models of HRA:

***Lev & Schwartz Model (1971):** This approach measures the present value of future earning of employees till retirement. According to this model the present value of human resource is obtained with the help of following formula.

$$Vr = \sum^{T}_{t=r} I(t)/(I+R)^{t-R}$$

V_r = value of individual r years old.

I(t) = the individuals annual earning up to the retirement.

t = retirement age

R = discount rate.

Although this model is most famous and is being used very frequently by different organizations in India, it does not recognize the possibility that employee may leave organization for reasons other that death or retirement, mobility of an employee from one position to another, skill, experience, morale etc of employee.

***Flamholtz Model (1971):** According to Flamholtz, an individual's value to the organization is determined by the services he is expected to render to the organization during the period he is likely to remain with the organization in various positions or services states. The present value of human resources may be derived by discounting the realizable value of expected future services at a specified rate. This model is an improvement over Lev and Schwartz model. However, the major drawback of this model is that it is very difficult to estimate the likely service states of each employee.

***Jaggi and Lau's Models (1974):** The valuation of human resources on a group basis was suggested by the authors of this model as a remedy to the problem of predicting the expected tenure or promotion chances of employees on an individual basis. Group means a homogeneous group of employees who may not necessarily be working in the same department. One of the advantages of this model is that it is easier to ascertain the percentage of people in a particular group likely to leave the firm during each of the forth coming periods, or to be promoted to higher levels.

***Morse Model (1973):** Morse is credited with differentiating between Human Asset Accounting (HAA) and Human Capital Accounting (HCA). He emphasized that HAA and HCA are the two components of HRA. According to him the value of the people to a formal organization is to be calculated as follows:

$$A = R - C$$

Where;
A= value of human assets to a formal organization.
R= Present value of the gross services rendered to the organization by all current employees.
C= Value of human capital employed in an organization.

***The Ogan's Models (1976):** Ogan proposed a model that attempts to identify the major determinants of human resource value in professional service organizations having established billing rates for the services rendered by them. This model shows total adjusted net present value of human resources equals the sum of certainty equivalent net benefits discounted at a rate external to the organization. Both cost and benefits for the determination of human resource value are taken into consideration by this model. How ever Lev and Schwartz model does not consider benefits and Flamholtz model does not incorporate the cost of employment.

***Chakraborty Model (1976):** He suggested calculating value of human resource by dividing the employees into two groups, managerial and non-managerial, and then multiplying average tenure of group of employees with average salary of them. The value thus obtained is discounted at the expected average after tax return on capital employed over the average tenure period, so that value of human asset does not fluctuate frequently.

He suggested considering recruitment, hiring, training and development cost as deferred revenue expenditure. For disclosure he suggested that the balance sheet of the organization consists of the different portion of above expenditure not written off and human assets under the head investment because consideration of human asset under the head fixed asset may cause problem of depreciation, capital gain and losses etc.

7. HRA and Indian Organizations:

A number of companies in other countries, especially USA, have reported HRA in their annual reports. In India, HRA has not been introduced so far as a system. The Indian Companies Act 1956 does not provide any scope for furnishing any significant information about human resources in financial statements. According to section 217 (2A) of the Companies Act, 1956 companies are bound to give particulars of their employees whose emoluments exceed Rs. 3,00,000 per annum. But this is no valuation of human resources because only the details of gross emoluments drawn by the employees are furnished. Moreover, nothing has been specified about the method of valuation and reporting in financial statement.

The reporting of human resources is being done on a selective basis at the option of the companies in India. This has resulted in only a few companies coming forward to give importance to the valuation and reporting of human resources. Even among the reporting companies, no uniform model is followed for valuation of human asset of their companies.

Some organization like BHEL, MMTC, SAIL, ONGC, NTPC, SPICE, OIL, ACC etc. voluntarily give information about human resources. Generally most of the organizations use Lev and Schwartz model, either originally or with some modification. BHEL was the pioneering organization in installing the human resources accounting system in India in 1974-1975. It recognizes that "in any organization, the value of its employees cannot be over-emphasized. Prior to 1981-82 BHEL was using the Lev and Schwartz model without making any changes where as now it values its human resources on the basis of a modified version of the model proposed by Lev and Schwartz, i.e. on the basis of compensation (both direct and indirect).

The variables in the model used by BHEL are:

$$\text{Present value of salary} = \frac{P*12*N*E*I}{F}$$

Where
P*12= Annual salary.
N= Number of employees in the grade.
E= Efficiency factor.
I= Increment factor.
F= Present value factor.

The human asset valuation is done by basically following Lev and Schwartz model with the following assumptions:

Present pattern in employee compensation including direct and indirect benefits including the effect of wage revision.

Normal career growth as per the present policies.

Weightage for changes in efficiency due to age, experience and skills.

Application of discount factor of 12% per annum on the future earnings to arrive at the present value.

But inspite of all the progress made in this area, there is as yet no universally accepted method of human asset valuation. There is a need for evolving a method which could be largely acceptable to do the comparison of valuation made by different organizations.

References

Bhargava. PP (1994), "*Human Resources Accounting"–A tool for control and management of assets,* Anmol Publication, New Delhi.

Dasgupta, N (1980), *Human Resources Accounting*, Sultan Chand & Son.

Flamholtz, E (1974), *Human resources Accounting,* The Management Studies, vol XI(1).

Kumar. A (1999), *Human Resource Accounting- an overview*, The Management Accountant, vol 34(8).

Likert, R (1967), *Human organization, its Management and value,* McGraw Hill, New York.

Maheshwari, SN (2002), Management Accounting and Financial Control, S Chand Publications, New Delhi.

Porwal, LS (1997), *Accounting Theory*, Tata McGraw-Hill Company, New Delhi.

Rao, PD (1993), "*Human Asset Accounting, an improved Model for Indian Industry"*, the Chartered Accounting, vol. XLII.

Sonara, CK (1999), *Human Resource Reporting- Practices and Problems in India,* The Management Accountant, vol 34(8).

Corporate Annual Reports- MMTC, BHEL, SAIL, ONGC, NTPC.