Role of Human Resource Accounting in India: Review of Issues of Human Resource Accounting Practices among Various Indian Companies

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Abstract

"Great vision without great people is irrelevant" Any company or entity endeavour hard for attaining profits, reputation in the society, customer retention and loyalty, business expansion, overcoming and eliminating competition. These goals can be achieved majorly by the employees of such organisations. It is an unquestionable truth that a well managed and highly cohesive work force is the back bone of any organisation. Hence it becomes important for any organisation to contemplate on the quantity and quality of its workforce which involves a thorough analysis and understanding of the time and capital invested on its human resources. This is commonly referred to as human resources accounting. HRA has gained momentum and many organisations in India have started practicing human resource accounting.

Key Words: Human Resource Accounting, Human Resources, Human Capital, Objectives, Infosys

(1) INTRODUCTION

The expansion of human resource accounting came as an effect of an increasing appreciation of the importance of human assets in economics and personnel management. Human resource accounting involves accounting for people as managerial resources. Human Resource accounting needs a method to account for human resources. It involves development of concepts and models for measuring the cost and value of people as organizational resources. It also deals with application of the measurement of HRA in actual companies. It is notable that many flourishing companies are growing their activities to achieve enterprise sustainability by following human resource accounting.

Sustainability has become an imperative part of a competitive business strategy. The concept of HRA which benefit the environment and social performance creates stakeholder value. Human Resource Accounting (HRA) plays a role in facilitating the goals of enterprise sustainability. It is clarifies the effect of human resource accounting information on human resource investment and its benefit to organization improvement. Traditional accounting has treated costs related to a company's human resources as expenses on the income statement. That reduce profit, HRA treats these expenditures as assets on the balance sheet that have future value for the company.

HRA involves accounting for the company's management and employees as "human capital" or assets that provide future benefits. The concept includes the procedure of measuring human resources which have relevance in managerial decision-making. Furthermore the resulting decisions are likely to support the organization's long-term sustainability and in turn increase stakeholder value and competitive advantage. Human resource accounting is evaluated as a probable organizational measurement tool. It is significant to be aware of the fact that HRA is not only about putting figures on human capital but also to sustain human resource development and management.

BHEL (Bharat Heavy Electrical Ltd), a leading public enterprise, took an initiative of starting the concept of HRA during the financial year 1972-73. Then many leading public and private sector organization followed in the subsequent years. Some of them are Hindustan Machine Tools Ltd. (HMTL), Oil and Natural Gas Corporation Ltd.(ONGC), NTPC, Cochin Refineries Ltd. (CRL), Madras Refineries Ltd.(MRL), Associated Cement Company Ltd.(ACC) and Infosys Technologies Ltd.(ITL).However, adaptability of various models (mainly Lev and Schwartz model, Flamholtz model and Jaggi and Lev model) and discount rate fixation and disclosure pattern i.e., either age wise, skill wise etc in BHEL, SAIL, MMTC (Minerals & Metals Trading Corporation Of India Ltd.) HMTL, NTP, etc make it clear, that there has been no uniformity among Indian enterprises regarding Human Resource Accounting disclosure.

(2) LITERATURE REVIEW:

Flamholtz (1979) describes the HRA concept in terms of the "Psycho-technical systems" (PTS) approach to organizational measurement. According to PTS approach, the two functions of measurement are process functions in the process of measurement and numerical information from them.

Davidove & Schoeder (1992) indicate that although many business leaders still view training as an overhead expense still training departments can encourage business to view them as partners in creating the assets crucial to organizational achievement.

Johanson & Mabon (1998) explains that expressing human resource intervention in financial terms is more effective than using soft accounting information such as data on job satisfaction.

Casico (1998) proposed a technique for measuring human capital based on indicators of human capital of innovation, employee attitudes and the inventory of knowledgeable employees. According to him, innovation can be calculated by comparing gross profit margins from old products. Similarly, employee attitudes predicting customer satisfaction and retention are a significant indicator of human capital.

Flamholtz (1999) highlighted the concept of human resource value is achieved from general economic value theory as all people acquire value because they are capable of rendering future service. An individual's value to an organization can be defined as the present value of the future services the individual is expected to provide till the time the individual is expected to remain associated with the organization.

Flamholtz et. Al. (2002) explored that HRA suggests a medium for development of management as well as measurement of HR. If HRA can reveal that development in HR management then managers will integrate human capital implications in their decision making to the utmost extent.

Flamholtz, Bullen & Hua (2003) explained that employee's contribution in a management development program augmented the value of the individuals to the firm. The HRA represents both a concept and 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 resources of the organization.

Toulson & Dewe (2004): carried a survey study using component analysis and found two reasons for human resources to be significant. The first is that measurement reflects the strategic and competitive significance of human resources, and second suggests that to earn credibility, human resources must be expressed in financial terms.

Dhade (2005) the author suggested a comprehensive point of view that human resource accounting is too essential for subsequent highly knowledge driven economy. It was focussed that companies should focus on intangible assets like human resources for future growth.

Moore (2007) Suggests that the value of human capital should be considered when making decisions about the acquisition and disposal of people and accounting practices currently employed by companies can have an undue influence in driving the strategic decisions of these companies. Moore notes that there are link between the process of acquiring an employee (a human capital asset) and that of acquiring a fixed capital asset.

Khaled Jamal Jaarat (2013) discussed and investigated the possibility of including the human resources within the definition of asset, and also the possibility of measuring the human resources, and as a result recognizing it. The possibility of measuring human resources by using one of the generally accepted bases in accounting that included in conceptual framework of financial reporting issued by IASB.

(3) OBJECTIVES

1. To study the significance of human resource accounting for smooth functioning of business entity.

2. To examine the human resource accounting practices in India

3) To scrutinize effectively the models and issues of human resource accounting faced by the Indian companies.

(4) RESEARCH METHODOLOGY:

The present paper is based on secondary data. The secondary have been collected from annual reports of the companies, books related to human resource accounting, journals, magazines and published journals.

(5) METHODS FOR VALUATION OF HUMAN ASSETS: (A) COST MODELS:

Historical Cost Method: William C. Pyle developed this model and was adopted in 1969 by R.G. Barry Corporation, a leisure footwear company in Columbus, Ohio, USA. This method is based on actual cost incurred by the organisation on recruiting, selecting, hiring and training and development of human resources. Cost of the human resources refers to the sacrifice that would have to be incurred to acquire human resource in an organization and as well as developing them according to the organizational needs. Primary accounting techniques are used in this model. Traditional accounting concepts of matching cost with revenue are used in the model. It provides a basis for assessment of company’s Return on Investment in human resources.

Replacement Cost Model: This Model lays emphasis on the value of the employee which is estimated as the cost of replacement with a new employee of same ability and efficiency. The two types of costs associated are a) individual replacement cost b) positional replacement cost. Individual Replacement cost refers to the cost of recruiting, selecting, training and development of human resources. Positional Replacement Cost refers to the sacrifice that would have to be incurred to replace a person with substitute of same ability, capable of providing equivalent services.

Opportunity Cost Model: Hekimian and Jones developed this model. Two different approaches have been recommended under the model: a) By discounting the future salaries and employee related capital costs (such as cost incurred on recruiting, training and developing employees) at a certain rate of discount and b) By discounting the future earnings of an organization at a certain date by a suitable rate and allocating a part of such present value to the human resources.

(B) **Value based models:**

Lev and Schwartz Model: \ Baruch Lev and Aba Schwartz developed this model in1971. This model is also known as Compensation Model popularly known as Schwartz Model. This model establishes the present value of future earnings of a person in an organization. This model realises the human resources as wealth providing sources of income.

$Vx = \sum I (t)/T\text{-}X (I + r)$

Vx = the value of an individual X years old.

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

r = a discount rate specific to a person.

T= retirement age.

This model ignores the possibility and probability of an individual leaving the organization for reasons other than retirement and death. The assumption of Lev Schwartz's Model is that human beings will not make any role changes during their tenure in the organization. This model is considered as an improvement over the cost models as it seeks to value the human resources of an organization on the basis of the economic value of employees of total organization.

Hermanson's Roger Model. This model is also referred as adjusted discount future wage model. This model is based on the assumption that a relationship can be established between employee's salary and his value to the organization. The present value calculated is further adjusted by an **EFFICIENCY RATIO**. It is weighted average of the ratio of return on investment of the reporting firm to all the firms of the economy. This ratio helps in calculating the effectiveness of the firm over a period of 5 years. Any ratio more than 1 indicates average rate of return is above the average rate of return of economy.

Efficiency Ratio= RF (0) RF (1) RF (2) RF (3) RF (4) / RE (0) RE (1) RE (2) RE (3) RE (4)

RF (0) is the rate of accounting income on owned assets for the firm for the current year. RE (0) is the rate of accounting income on owned assets for all the firms in the economy for the current year. RF (4) is the rate of accounting income on owned assets for the firm for the fourth previous year. RF (4) is the rate of accounting income on owned assets for all the firms in the economy for fourth previous year.

Flamholtz's Model: This model is also known as Stochastic Reward Valuation Model. It identifies the major variables which agree on the value of an individual to the organization. The model promote that a person generates value for an organization as he occupies and plays different roles and renders services to the organization. Flamholtz was of the view that human beings cannot be purchased or owned by organization like other physical assets. They are free to survive. The movement of the people from one organizational role to another is a **stochastic process**. The model suggests the steps to assess the value of an individual to the organization:

- Estimate the time period during which an individual is expected to render his services to the organization.
- Recognize the various service states that an individual may occupy during his stay in the organization.
- Measure the value derived by an organization if an individual occupies the various service states for specified time periods.
- Estimate the probability that the individual will occupy each service state at the specified future time.

Flamholtz elucidate that an individual's expected realizable value is determined by two factors: (i) The individual's conditional value and (ii) The probability that the individual shall maintain his expected service life. The product of these two variables is the present worth of potential services that are expected to be rendered to the organization. Individual's conditional value depends upon three basic elements i.e. Promotoability, Productivity and Transferability. Productivity refers to the services an individual provides while occupying the present position. Transferability refers to the set of services an individual is expected to provide when he/she is transferred to other position at same level or in a different department of the organization. Promotability is a set of services an individual is expected to provide after his promotion to higher positions.

Jaggi & Lau Model: Jaggi and Lau have projected model for human resources valuation which is based on groups rather than the individuals. A group implies homogeneous employees who may or may not belong to the same department or division. As it is difficult to predict an individual's expected service tenure in an organization but on a group basis, it is easier to ascertain the percentage of people in a particular group likely either to leave the firm during each of the coming period, or to be promoted to higher levels. Jaggi and Lau have proposed markov analysis to be used for valuation purposes.

TV = (N) rn (T) n (V)

Where TV = Column vector indicating the current value of all current employees in each rank.

(N) = Column Vector indicating the number of employees currently in each rank.

n = time period

r = Discount rate

(T) = Rank Transitional Matrix indicating the probability that an employee will be in each rank within the organization or terminated in the next period given his current rank.

(V) = Column Vector indicating the economic value of an employee of each period.

(6)HUMAN RESOURCE ACCOUNTING IN INDIA:

According to the money measurement concept of accounting, only those transactions can be recorded under double entry accounting system, which can be expressed in monetary terms. Human attributes like honesty, sincerity, loyalty, attitude and skills cannot be expressed in monetary terms; therefore there is no standard method which can be followed to capitalize the investment on human assets. Due to the development of business and industries, some of the Indian Companies, both public and private, value their human resources and report this information in their annual report.

In India the concept of HRA is struggling for its acceptance and has not been introduced so far as a system. It is universally accepted fact that the progress of any organization is dependent on the skilful utilization of its human resources. In the modern world, an organization may have adequate financial resources and acquire the physical resources with the latest technology as it needs, but it would be difficult for the organization to manage its affairs without the human resources. Now the importance of human element in an organization has been realized and Indian companies are now considering human resource factor just like another factor to production. HRA reports give useful information to the company management, employees and investors. Infosys Technologies and BPL are the leading companies in India, which use HRA. INFOSYS, Bharat Heavy Electrical Limited (BHEL), DR. REDDY's and Steel Authority of India (SAIL) are ever profit generators because of adequate labour quality. In recent years, some public undertakings have started to disclose information about their work force along with the financial statements.

Associated Cement Companies (ACC): ACC is the leading cement producing Indian company having thirteen cement plants and six subsidiaries and its own marketing network. The company has classified total employees age wise and designation wise like (a) Senior executives (b) Managerial (c) Officers (d) Clerical and other (e) Supporting staff (f) Skilled workers (g) Semi Skilled workers (h) Unskilled workers to measure the value of human resources and it has been disclosed by using Lev & Schwartz model with adjustments suggested by Flamholtz, Jaggi and Lau.

Bharat Heavy Electricals Limited (BHEL): BHEL sector organization set up with the aim of manufacturing heavy electrical equipment in the country. This company followed the discount rate at 12 per cent as the weighted average cost of capital. The company uses Lev & Schwartz model to categorize the employees according to their age, grade and category for the purpose of valuation and reporting information related to human resource accounting. BHEL also started considering efficiency factor for the purpose of human resources valuation from the year 1980-81. It also disclosed the ratios like Human Resources / Total Resources, Human Resources / Fixed Assets (FA).

Cement Corporation of India Limited (CCI): Cement Corporation of India started reporting of Human Resources from the year 1979-80. This company reports the number of training and development programs conducted every year and the number of employees that participated in such programs under the head of human resource accounting. The future expected return of an employee are discounted at the rate of 15 per cent.

Electrical India Limited (ELIL): ELIL divides total employees in 20 groups from level one to level twenty. ELIL uses the salary based economic valuation proposed by the Lev and Schwartz for the valuation of its human resources. To calculate the present value of the future expected income of employees, company used the rate of 12 per cent.

Engineers India Limited (EIL): Engineers India Limited (EIC) is a consultancy and engineering organization, incorporated in 1965. It became a wholly owned government undertaking in 1967. It started reporting information relating to human resource accounting under the head “Human Valuation “, from the financial year 1981-82.

Hindustan Petroleum Corporation Limited (HPCL): HPCL follows the Lev and Schwartz model for the valuation and reporting of human resources. Company discounts the future expected return of the employees at the rate which is changing from time to time. Company also reports Total Assets including Human Resources, Net fixed Assets and Net Current Assets, Employee Cost, Employee cost to HR, HR to Total Resources.

Infosys Technologies Limited (INFOSYS): Infosys justifies the human resource valuation as “The dichotomy is accounting between human and non-human capital is fundamental. The Lev & Schwartz Model has been used by Infosys to compute the value of human resources. The future earnings have been discounted at the cost of capital for Infosys. Infosys calculates the cost of capital by using Beta.

National thermal Power Corporation (NTPC): NTPC uses the Lev and Schwartz economic value based model for the valuation and reporting of information regarding its human resources. For valuation of human resources, company divides total employees in three groups i.e. Executives, Supervisors and Workmen. NTPC reports the value of human resources group wise as well as in total. It also calculates some ratios like HR/ TR, VAD/HR, Turnover/HR. The company uses the constant rate for discounting the future expected income of employees at 12 per cent.

Satyam Computers Limited (SATYAM): Satyam uses the valuation model proposed by Lev & Schwartz for computing the human resources valuation. Company considers the weighted average cost of capital for the past five years as the discount rate. Therefore, the discount rate varies every year. Satyam reports number of employees and value of human resources group wise as well as in total. It reports HRV in Indian rupees as well as in US Dollars.

Steel Authority of India (SAIL): SAIL started valuation and reporting of human resources from the financial year 193-84. SAIL follows the human resources valuation suggested by Lev and Schwartz by accommodating some adjustments suggested by Flamholtz, Jaggi and Lau.

(7) HUMAN RESOURCE VALUATION BY INFOSYS

Material developments in human resources / industrial relations, including number of people employed. Our culture and reputation as a leader in consulting, technology, outsourcing and next-generation services enable us to attract and retain some of the best talent.

Human capital-Infosys employees are regarded as most important assets. As at

March 31, 2018, the Group employed 2,04,107 employees, of which 1,92,179 were professionals involved in service delivery to the clients, including trainees. During fiscal 2018, they have added 3,743 new hires, net of attrition. The key aspects of HR practice include recruitment, training and development, and compensation.

Recruitment-During fiscal 2018, Infosys received 15,40,498 employment applications, interviewed 1,43,872 applicants and extended offers of employment to 52,943 applicants.

Training and development-Infosys enhanced some of the existing courses and introduced new courses on Infosys Learning Platform (ILP). ILP was launched and started reaping benefits in the form of enhanced learning among our fresh hires. Their continuous education programs emphasize enhancing the relevance and effectiveness of learning. In the year 2017-18 they have enhanced hands-on-based assessments, and many courses have been launched on ILP for existing employees, which resulted in enhanced reach of their enablement programs across the organization. All these changes were incorporated to create a unique experience for learners at Infosys.

Compensation-Their technology professionals receive competitive salaries and benefits. They have also adopted a variable compensation program which links compensation to the company and individual performance. In order to attract, retain and motivate talented and critical employees and to encourage employees to align individual performance with the company objectives and reward employee performance with ownership, the company granted share-based benefits to high-performing executives and mid-level managers.

Human Resource Valuation by Infosys

Consolidated statement of Profit and loss for the year ended March 31 (in crore)

INFOSYS LIMITED

Statement of Profit and Loss for the	Note	Year ended March 31 2016	2015
Income from software services and products	2.16	53,983	47,300
Other Income	2.17	3,009	3,337
Total revenue		56,992	50,637
Expenses			
Employee benefit expenses	2.18	28,206	25,115
Deferred consideration pertaining to acquisition	2.10.6	110	219
Cost of technical sub-contractors	2.18	4,417	2,909
Travel expenses	2.18	1,665	1,360
Cost of software packages and others	2.18	1,049	979
Communication expenses	2.18	311	384
Consultancy and professional charges		563	396
Depreciation and amortization expenses	2.8	1,115	913
Other expenses	2.18	1,909	1,976
Total expenses		39,335	34,251

Source: Annual report 2015-16

(8) ISSUES OF HRA IN INDIA: As HRA is not made mandatory under Indian Companies Act, this is the basic reason which creates hurdles in the way of progress of HRA in India.

India as trend follower- Indian Institutes like ICAI and ICWAI are not encouraging any sort of research in accounting literature as is being conducted in Institute like American Accounting Association in America.

Model adoption-Most popular model being used by Indian companies is Lev-Schwartz model. Calculations and valuation in this model are of very complex nature which leads to use of computer technology, which is not as much as adopted in India by commercial organizations. There is no standard model or uniform model available in India. One company is following one model and other company is following the other e.g. SAIL makes the categories of workers on the basis of age and their status where as BHEL categories its workers on the basis of status held by them

Costly Affair- Most of the companies are not using HRA models being a huge cost involved in their implementation and they belief that costs involved exceeds the benefits associated.

Guidelines- There is no proper clear-cut guidelines and specific procedure for finding cost and value of human resources of an organization. The period of existence of human resources is uncertain and hence valuing them under uncertainty in future seems to be unrealistic.

Tax laws- Tax laws do not recognize human beings as assets. A majority of the working population in India is illiterate. Due to ignorance of HRA, workers resist the usage of model for human resource valuation. It is very difficult to make them understand about the model being used.

Unlike Physical Assets- As human resources are not capable of being owned, retained and utilized, unlike the physical assets, there is problem for the management to treat them as assets in the strict sense. There is no universally accepted method of human asset valuation. Determination of amortization rate is also a main problem being faced by the accountants.

Demotivated- Human resource accounting may demoralize some of the employees having less value than the others having more value for the organization. In what form and in which manner, value of human resources be shown in the financial statements is still a point of controversy among accounting professionals.

(9) CONCLUSION

Due to the development of business and industries, some of the Indian Companies, both public and private, value their human resources and report this information in their annual report. In India the concept of HRA is struggling for its acceptance and has not been introduced so far as a system. It is universally accepted fact that the development of any organization is dependent on the skilful utilization of its human resources. In the modern world, an organization may have adequate financial resources and acquire the physical resources with the latest technology as it needs, but it would be difficult for the organization to manage its affairs without the human resources. The importance of human element in an organization has been realized and Indian companies are now considering human resource factor just like another factor to production.

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