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Human Resource Accounting Practices in Public and Private Sector: An Indian Experience

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Abstract:
The most significant resource for any organization is its human resources or human assets as they are labeled. The usage and value of physical, financial, and technical resources are all dependent on the human resource's knowledge, skills, and competence. Ironically, the latter three resources are properly recorded in the accounting books as according to the generally accepted accounting principles (GAAP), while human resources are completely overlooked. “Human Resource Accounting (HRA) is a process of recognizing and computing data about human resources and communicating this information to the interested stake holders. It involves measuring the costs of recruiting, selecting, hiring, training, and developing human resources in an organization”.
HRA is extremely important not just to management, but also to analysts and employees of the organization. It guides the management in the improved deployment, scheduling, and administration of human capital inside the organization.
It is absolutely necessary that some method of determining the value of the intelligence, expertise, ability, competency, skills, and motivation of the human element must be duly ascertained along with the costs and expenditure incurred on procurement, training and retaining.. The current study attempts to understand HRA and its models from a broader perspective in selected Indian organizations and make suitable suggestions and recommendations thereof.

Key words: human resource accounting, HRA models, Human Capital

1. Introduction

The employees of the organization are the most valuable resource. The quality of an organization's human resources is essential to its success. Human resources value includes investments targeted at enhancing knowledge; the skills and aptitudes of the organization's employees. “Human Resource Accounting (HRA) is the process of identifying, recording and reporting investments of the organization's human resources that are not accounted for in traditional accounting processes”. “The American Accounting Association (1973) defined Human Resource Accounting as the process of identifying, measuring and communicating information about human resources in order to facilitate effective management within an organization.” It is used to perform a cost-benefit analysis in order to make appropriate and successful human resource acquisition, allocation, development, and maintenance decisions. “HRA gives information about the internal strength of the organization and its impact on the budgetary control of recruitment, promotion, transfer, retention, human relations and organizational behavior”. It helps the organization in making long-term management decisions based on the demand and supply of human resources derived from job analysis. But, despite being of such importance, the study of human resources of an organization was not given the necessary attention over the years by the management thinkers. Financial statements in India are prepared in compliance with the Companies Act 2013 and do not include any information regarding human resources other than the compensation paid and the total number of employees. We find very little disclosure of Human Resource Accounting (HRA) by the Indian companies, with very few companies reporting HRA in their annual reports. Furthermore, company HRA disclosures are unstructured and inconsistent, and this is true across enterprises and industries. “Furthermore, there is no legal action that can be taken against businesses that does not include information in their notes or schedules about the value of their human capital and the outcome of their performance throughout the accounting period”. In this context, it's important to look into and comprehend the human resource accounting methods in India's corporate sector.

2. Objectives of the Study

1. To understand the concept and models of HRA
2. To identify the practices followed by select Public and Private Indian companies
3. To suggest improvements in HRA practices in the Indian accounting context

3. Research Methodology

The study is based on secondary data sources collected from journal articles, books, company websites, research paper and internet sources,. The information gathered is redefined and applied to the current study. The research was limited to six organizations- 4 public and 2 private companies that employ human resource accounting practices.

4. HRA: Concept and Models

The concept of human Resource accounting was proposed by Sir William Petty in 1691 but the actual research in the area started with the works of Renris Likert in 1960. “Human resource accounting, also known as human asset accounting, involves identifying, measuring, capturing, tracking and analyzing the potential of a company's human resources and communicating the resulting information to the company's stakeholders”. This strategy involves assigning a cost to each employee at the time of recruiting, as well as the potential value they will comprehend in the near future. “Human resource accounting reflects an organization's human resource capabilities in monetary terms in its financial statements”. “Flamholtz (1985) gave more precise definition of HRA, as HRA as the process of measuring the cost incurred by business firms and other organizations to recruit, select, hire, train and develop human asset. This definition gives a view as to what expenditure on the human resources should be recognized for valuation and reporting purposes”. In other words, HRA involves the measurement of monetary valuation of people working in the organizations. As a result, HRA “reflects not only the measurement of all costs/investments involved with employee recruiting, placement, training, and development, but also the scale of an organization's economic value of its people”. “Gupta (1991) defines HRA as essentially an

information system that tells management what changes have occurred that are affecting the company's human resources over time. It entails keeping track of the money spent on people, the cost of replacing them, as well as the economic value of people in an organization." As a result, HRA gives a detailed examination of one's strategy for using employee monetary cost and economic value data in decision-making practices. HRA is a management tool that helps executives understand the cost and benefit associated with HR decisions so they can make better business decisions.
HRA's principal objective is to facilitate management to generate human resource data, assign monetary cost and value to human resources, and exhibit it in the balance sheet. It seeks to:

(i) To provide information related to the cost of acquisition, retention and maintenance of human resources to management facilitating taking decision regarding promotion, transfer, training, retirement and retrenchment.
(ii) To provide the stake holders with the overall cost of human resources and the benefits derived from their use.
(iii) To give cost-value information to help management make cost-effective decisions concerning human resource acquisition, allocation, development, and maintenance.

4.1 HRA measurement models

Are categorized as:

- Cost based models
- Value based models

4.1.1 Cost Based Models

1. Historical Cost Method:
The method also referred to as original cost or acquisition cost was introduced by William C Pyle. The historical cost method is based on determining the actual cost of hiring, acquiring, developing, and improvement of human resource (HR), which is equal to the worth of personnel. HR's economic value grows over time as they gain experience and mature. The capital cost of HR, on the other hand, is reduced via amortization in this model. The benefit of this model is that the relevant information can be quickly extracted from existing records, saving time and money

2. Replacement Cost Method: Rensis Likert proposed this concept in 1985, which was expanded by Eric G. Flamholtz on the basis of replacement or substitution cost. Human resources are valued using this method at their replacement cost, which is the cost of replacing current employees. Replacement expenses can be either positional, such as replacing workers for certain positions, or personal, such as replacing specific aptitude or ability of specific individuals. "This method calculates the cost of replacing an existing employee. Replacement costs, according to Likert, comprise the costs of procurement, selection, remuneration, and training (including the income unavoidable during the training period). The information gleaned from this strategy could be beneficial in determining whether or not to fire or replace employees."

3. Opportunity Cost Method: was advocated by C Kiman and Jones. Opportunity cost method or the competitive bidding approach, gives value to a person depending on what each department/ division/ process or another organisation would be prepared to pay the employee. .This method analyses alternative income sources from Human Resource's productive capabilities by inserting some alternative utilization. Employees who are unable to participate in the auction pay no opportunity expenses. As a result, the value of Human Resources should only contain a small number of people.

4. Current Purchasing Power Method (C. P.P.M): as the name suggests under this method the HR cost is changed into the current purchasing power of money with the use of employee price index numbers, similar to the historical cost approach. For amortization, the translated value becomes the value of HR.

4.1.2 Value Based models:

1. Human Asset Multiplier Method: The 'human wealth multiplier approach,' created by W. J. Giles and D. Robinson, recommends the use of a multiplier that is applied to an individual's earnings to determine the current valuation.. "The multiplier is a tool that links the personal value of employees to the total asset values of the organization".

2. Economic Value Method: Human assets are appraised using this strategy based on their contribution to the organization until they retire. To determine the present financial value of the individuals, the payments paid to them in the form of salaries, allowances, benefits, and so on are assessed and then discounted accordingly.

3. Lev and Schwartz Model (1971): Also known as the Present value of future earning model. Lev and Schwartz proposed this model for valuing human resources in 1971 and according to him "there is a fundamental distinction between human and non-human capital: non-human capital ownership is transferable, however human capital is not". To determine the present value, "an employee's or a group of employees' future earnings are estimated up to the age of retirement and discounted at a rate appropriate to the person or the group. The estimation is based on the future profits over the employee's remaining service life and then discounted the expected earnings at the cost of capital to arrive at the present value".

4. Stochastic Model of Eric Flamholtz**:** Flamholtz came up with this model (1972). It's a step forward from Lev and Schwartz's work (1971) –Under this method it considers the likelihood or possibility of an employee moving from one process/ department to another over his association with the organization, as well as his exit from the current organization prior to death or retirement. "According to this model, the ultimate measure of the value of an individual to an organization is its expected value of achievement. The expected value of achievement is based on the assumption that there is no direct relationship between the cost incurred by an individual and its value to the organization at a particular point in time".

5. HRA in India

The Companies Act of 1956 does not explicitly mention about the disclosure (cost or value) of human resources in a company's accounts. Also the Indian Institute of Chartered Accountants (ICAI) has not documented any accounting standard for measuring and reporting an organization's human resources. As a result, it is up to the organization to decide how much and in what form they wish to voluntarily disclose the information about their human capital in their financial and accounting reports. Accepting the arguments in favour of human resource accounting (HRA), several companies have voluntarily begun valuing and disclosing human capital information.

In India, Bharat Heavy Electrical Ltd. (BHEL), a leading public firm, in 1973-74 was the first organization to implement the idea of HRA. "In the years that followed, it was incorporated by other major public and private sector organizations like-. Oil and Natural Gas Commission (ONGC), Minerals and Metal Trading Corporation of India (MMTC), Steel Authority of India Ltd (SAIL), and National Thermal Power Corporation are some of these institutions (NTPC),Engineers India Ltd.

(EIL), Hindustan Machine Tools Ltd. (HMTL), Cement Corporation of India (CCI), Oil India Ltd., Associated Cement Companies, SPIC, Metallurgical and Engineering consultants India Limited, Cochin Refineries Ltd. Cochin Refineries Ltd. (CRL), Madras Refineries Ltd. (MRL), Associated Cement Company Ltd. (ACC) and Infosys Technologies Ltd. (ITL) and many more". Initially the HRA concept did not gain much acceptance or recognition in business. It was only in early 1990s that the significance and value of human assets began to be realized, with major expansion in employment in the service sector, technology/ software, and other knowledge-based sectors. Human resources began to gain acceptance as a significant contributor to the creation of shareholder value. "By 2002, major software firms such as Infosys, Satyam Computers, and DSQ Software, as well as major manufacturing firms such as Reliance Industries, had integrated HR accounting. The ICAI till date has still not formulated any explicit accounting standard on measurement and reporting of cost and value of HR nor does the Indian Companies Act, 2013, requires any disclosure of HR valuation in the financial statements of the companies".

Despite the fact that the manner of establishing and reporting on HRA in India is extremely unfriendly, certain public limited firms in India are currently using HR Accounting methods. "HR managers were quick to report on the above developments by stating that more and more organizations have started to realize the importance of skilled workforce". HR monitoring and reporting, they argued, could not be disregarded in order to compete in highly competitive markets. The Lev and Schwartz model has been the most well-known and acceptable model deployed by Indian enterprises adopted it with minor modifications across both the public and private sector.

6. HR practices of selected Indian companies

Infosys Technologies Ltd (Infosys)

Human resource costs were seen as investments rather than expenses by Infosys in the 1990s, and the dimension of "value" of individuals and the entire organisation was added. Infosys has been reaping high market valuations since it began reporting human resources as an asset on its balance sheet. "Infosys HRA model is based on the current worth of an employee's future earnings, with the assumption that the employee's compensation package comprises all direct and indirect benefits earned both in India and abroad. According to the company, valuing intangible assets and reporting them on the balance sheet and other financial statements will assist investors in determining the company's market worthiness".

Early HRA adoption benefited Infosys in a number of ways, according to the company. It helps the company in making managerial decisions based on human resource availability and future requirements. Organizations were able to avoid the negative consequences of redundant labour by properly valuing human resources. Additionally, this can be further used to compare employee performance and productivity across different processes and departments.

"Human resources accounting (HRA) was a step further in Infosys' focus on its personnel," the then-chairman and managing director, Narayana Murthy, stated: "Comparing this figure over the years will tell us whether the value of our human resources is appreciating or not. For a knowledge intensive company like ours, that is vital information." Infosys provides data on the "number of employees, their age and group distribution, their net worth, value added, and human resource value, as well as ratios like the value of human resource/employee, total income/human resource value, employee cost/human resource value, value added/human resource value, and return on human resource value" (www. Infosys.com)

Bharat Heavy Electricals Limited (BHEL)

BHEL is India's largest public sector energy/infrastructure engineering and manufacturing company, with operations in transportation, transmission, renewable energy, oil & gas, and defense. The corporation has been profitable and paying dividends since 1971-72, From the financial year 1974-75, BHEL began including information on HRA in its annual report using the Lev and Schwartz model. It is India's first corporation to provide HRA. “From 1980-81, BHEL began considering efficiency as a factor in determining the value of human resources. For the purposes of valuing and reporting HRA data, it classified employees by age, grade, and category. Among the ratios provided are Human Resource (HR)/ Total Resource (TR), Human Resource (HR)/ Fixed Assets (FA), Turnover/ Human Resource Value, and Profit before tax/ Human Resource Value”. (www.Bhel.com)

National Thermal Power Cooperation (NTPC)

NTPC Limited is India's largest energy company, created in 1975 to aid India's power development. Apart from electricity production, which is the company’s mainstay, it has diversified into consulting, power trading, ash utilization, and coal mining. An analysis of NTPC's HRA policies reveals that the company has been evaluating its human resources on a regular basis. “This information is also available in annual reports. Lev and Shwartz model of HR accounting is deployed to assess the value of HR in the corporation. To treat its human resource assets on par with other assets, NTPC analyses them using various accounting rules incorporated in HRA concept”. (www.ntpc.co.in)

Cement Corporation of India (CCI)

It was founded in January 1965 with the goals of exploring and supplying limestone reserves, as well as building up sufficient cement production capability to aid in the achievement of domestic diamond aims. CCI is fully aware of human activities and devotes nearly all of its attention and importance to the preservation of human assets in the fine arts. CCI has been using the Lev & Schwartz model to calculate the value of human assets and disclose it in its Annual Report since 1979-80. Human resource acquisition, development, compensation, integration, and maintenance are all meticulously planned, skillfully organized, carefully controlled, and directed to ensure that individual requirements, corporate goals, and social objectives are met. “In the absence of a clear-cut, well-defined, and universally acknowledged model for valuing a company's human assets, an attempt has been made to do so by estimating the present value of the predicted future earnings of employees using existing pay scales and promotional strategies. The computation was based on the norms and principles enunciated in Lev and Schwartz's, Eric Flamholtz's, and Jaggi and Lew's economic models, with appropriate revisions”.(www.cciltd.in)

Steel authority of India Limited (SAIL)

SAIL, is an Indian Maharatna company, is India's largest steel producer, producing 20% of the country's crude steel. “SAIL produces both basic and value-added steels for a wide range of applications. With a focus on skill preservation, knowledge transfer, training in specialized/advanced skills and technology in collaboration with reputable organizations, and development of effective managerial competencies through affiliation with premier institutes, the company has been making consistent efforts through various training and development activities”. From the financial year 1983-84, SAIL began valuing and reporting its human resources. SAIL adopts Lev and Schwartz's human resource valuation model. It utilizes a constant rate of 15% for discounting the future estimated return. “SAIL gives information on the number of employees as well as employee distribution by category. EPS, Net Worth per Share, and Employee Remuneration and Benefits are also offered, as well as Turnover, Value Added, and Capital Employed”. (www.sail.co.in)

Rolta India Limited

It is an international software development and services firm that was started in 1989. To calculate the company's human resources, Lev & Schwartz model, is employed. “The company uses all direct and indirect benefits earned by employees as a basis for calculation. The average raise is estimated based on the preceding three years' raises. The policy of the company determines the retirement age. These assumptions were used to calculate the present value of future profits, which was calculated using different discount rates for different years”.(www.rolta.com)

7. Conclusions and Suggestions

In current era of globalization, human resource is a valuable input for every business, since all the other physical, financial and technological resources are dependent on it for achieving the corporate goals. HRA is a method of recognizing and computing the costs incurred in employees in the form of procurement, development and maintenance. HRA assists management in determining the worth of employees, which aids decision-making. In the Indian context, many public sectors have recognized the benefits associated with it. Though the number of private sector organizations is less but they too are on their way of incorporating it in their accounting records. This is regarded as one of the most important public-sector and private-sector practices. This practice has helped them not only recognize their total value in terms of physical and human assets, but it has also enabled them to depict themselves as employee-centric businesses that value their employees, enhancing their company image in terms of a conducive work place which value their employees. Apart from this it also gives the organization a precise vision towards the future organizational missions and helps the management to evaluate their HR related policies and practices. Though accounting professionals and scholars have realized the benefits of HRA, it has yet to gain widespread popularity. “The International Accounting Standards Board (IASB), and the Accounting Standards Board (ASB), has not been able to develop any specific accounting standards on measurement and reporting of cost and value of HR of an organization”. Understanding the significance of HRA, the government, as well as other legal and professional boards, should take appropriate steps to adopt accounting standards both at national as well as at the international levels. .

Summary of HRA in Public & Private Companies

S. No.	Name of the Organization	Type	Year in which HRA introduced	Model Used	Discount rate applied (%)
1	Infosys Technologies Ltd (Infosys)	Private	1995-96	Lev and Schwartz Model	11.21 %
2	Bharat Heavy Electricals Limited	Public	1974-75	Lev and Schwartz	12 %

	(BHEL)			Model	
3	National Thermal Power Cooperation (NTPC)	Public	1984-85	Lev and Schwartz Model	12 %
4	Cement Corporation of India (CCI)	Public	1979-80	Lev and Schwartz Model	15 %
5	Steel authority of India Limited (SAIL)	Public	1984-85	Lev and Schwartz Model	15 %
6	Rolta India Limited	Private	2002-03	Lev and Schwartz Model	9.68 %

Some of the suggestions offered to make HRA effective:

1. Organizations should make efforts toward competency development in addition to technology advancements and modernization. HRA is an excellent technique for measuring the economic worth of employees to their business, which allows for better and more effective human resource management.
2. The government should propose a specific methodology that is uniform and consistent across all businesses as not yet structured and consistent across industries
3. The government should make it mandatory for HR-related data to be valued and disclosed in its annual report..
4. Incentives like as subsidies and tax exemptions should be provided by the government to encourage corporations to disclose HRAs.

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