



# HUMAN RESOURCE ACCOUNTING METHODS AND PRACTICES IN INDIA: A STUDY ON FEW SELECTED PUBLIC SECTOR COMPANIES

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**Abstract:** HRA is the process of identifying, measuring data about human resources and communicating this information to interested parties. Human Resource Accounting (HRA) involves accounting for expenditures related to human resources as assets but in traditional accounting it is treated as expenses that reduce profit. Human Resource Accounting (HRA) was introduced in 1980s; it is the most vital part of any organization, as it makes sure there exists a mutual benefit between financial and all other physical resources towards the achievement of organizational objectives and goals. Conventionally, a financial asset is accounted in the books of accounts as per the general principles of accounting, but does not count the human asset. Although many efforts have been made by many researchers in this arena, but still a proper method of valuing the Human Resources in the Indian context is not available. Though, Human Resource Accounting (HRA) was introduced way back in 1980s, it started gaining popularity in India recently. The major object of the study is to identify the human Resources value and to highlight the major characteristics of HRA along with the practical benefits and difficulties in implementations. The paper also focuses on the issues and challenges of HRA and also the models of measuring the Human Resources. There is also a study regarding the international development in HRA and also the HRA practices. The study forms mainly the extensive review of related literature based on highly work. The major benefits of such accounting are that it develops effective managerial decision making, quality of management, prevents misuse of human resources, increases human asset productivity, improves morale, job satisfaction and creativity, etc. The constraints involved are that uncertainty of human resources creates uncertainty in valuation of human resources. Nature of amortization is another difficulty; valuation of human resources, their accounting treatments is also difficult as there is no specific IAS/IFRS for such treatment.

**Key Words:** Human Resources, Human Resources Capital, Human Resource Accounting (HRA)

## I. INTRODUCTION

The American Accounting Society Committee on Human Resource Accounting defines it as “Human Resource Accounting is the process of identifying and measuring data about human resources and communicating this information to interested parties.” In simple terms, it is an extension of the accounting principles of matching costs and revenues and of organizing data to communicate relevant information in financial terms. Mr. Woodruff Jr. Vice President of R. G. Batty Corporation defines it as “Human Resource Accounting is an attempt to identify and report investments made in human resources of an organization that are presently not accounted for in conventional accounting practice. Basically it is an information system

that tells the management what changes over time are occurring to the human resources of the business.” M.N. Baker defines Human Resource Accounting as "Human resource accounting is the term applied by the accountancy profession to quantify the cost and value of employees to their employing organization"

Men, materials, machinery, money and methods are major resources for an organization. The success of an organization is largely depends upon these resources. These resources are broadly classified into two categories, viz., animate and inanimate (human and physical) resources. Men (human resources) are considered to be animate resources. Other resources like materials, machinery, money and methods are considered to be inanimate or physical resources. The success of an organization is possible if the scarce physical resources are properly utilized by the human resources. What is important here is that the physical resources are operated by the human resources as the physical resources cannot act by itself. Therefore the efficient and effective utilization of inanimate resources depends largely on the quality, skills, perception and character of the people that is the human resources working in it. The term Human Resource at macro level indicates the sum of all the components such as skills, innovative ideas, intuition, imagination, knowledge, creative abilities and experience possessed by all the people. An organization possessed with the physical resources may sometimes misutilize unless it has right people. Thus, the importance of human resources cannot be ignored. Unfortunately, till now generally accepted system of accounting this important asset, viz., the human resources has not been evolved.

For a long period, the importance of human resource was not taken care of seriously by the top management of organizations. But in the recent period there should be attention on the proper development of such an important resource of an organization.

## II. RESEARCH METHODOLOGY

For pursuing any research there should be a proper research methodology. Detailed plan of the research methodology is provided below:

### 2.1 Research Problem:

The research problem of the study is: The major problem identified with HR Accounting is estimation of the value of human resources and ensuring effective utilization of the human resources and projecting a consolidated version of Human Resources in the annual returns.

### 2.2 Objectives of the study

1. To highlight the major benefits of HRA along with the practical difficulties in implementations.
2. To identify the issues and challenges.
3. To identify the models of measuring Human Resources.
4. To examine the world demand in HRA.
5. To study the Human Resources accounting practices.

### 2.3 Sample Selection

Purposive Sampling technique is used for the selection of sample units. Samples are taken from 3 public sector companies i.e. BHEL, SAIL and NTPC. Annual reports of all companies are for two financial periods i.e., 2022-23 and 2023-24.

### 2.4 Source of Data

The data used for this study is primary data. Questionnaires sent to selected companies and on that basis data is collected and analyzed. An annual report, websites, different books of management accounting & personal management, previous research findings (Thesis and Dissertations) has been used for source of secondary data.

### 2.4 Scope of the Study

The Scope of the study title “Human Resource Accounting Methods and Practices in India: A study on Few Selected Companies” limited to Human Resource Accounting Practices of companies for the period of two year commencing from 2022-23 to 2023-24. The research has identified various reporting practices of Human Resource Accounting in its annual report. Reporting Practices of Selected Public companies has been explored. Three companies from public sector were taken as sample and comparative study has also done.

### 2.6 Limitations of the Study:

Every research conducted has certain limitations. The limitations of this study are as follows:

1. Although 3 Companies are being taken into consideration, still data collected is about the Present number of employees working in organization. There is no information of past employees.
2. The study being corporate sector or company specific cannot be generalized.

### III. REVIEW OF LITERATURE

American Accounting Association has defined —Human Resource Accounting is the process of identifying and measuring data about human resources and communicating this information to interested parties.¶

Roger H. and Hermanson (1964) developed —The Unpurchased Goodwill Model¶ according to this model, the organization must ascertain its actual earnings and average it for the past few years.

Hekimian and Jones (1967) developed Opportunity Cost Approach, according to them —an opportunity cost exists for all human resources that are in short supply and basically any decision that involves a choice from more than one alternative has an opportunity cost¶.

Lee Brummet, Eric Flamholtz and William C.Pyle(1968) developed Historical Cost Approach, according to them, the cost incurred for recruitment, training and developing the employees should be capitalized (converting the expenses into capital investment or asset) and total amount capitalized is then amortized (gradually reduced) over the estimated useful life of the human resources.

David Watson developed Standard Costing Approach according to him —human resource data is used for setting standard costs for various HR functions like hiring and training¶

Brauch Lev and Aba Schwartz (1971) developed Present Value of Future Earning Model and according to this model, the value of human resources depends on the present value of the future earnings to be made from a person's employment.

W.J.Giles and D.F.Robinson (1972) developed The Human Asset Multiplier Model and according to them, the valuation of human resources is normally made in the same way as other business assets are valued on a —going concern concept¶ basis.

RenisLikert and David G.Bower (1973) introduced —The Causal, Intervening, and End-result Model and according to them, the development of participative approach requires the introduction of new organizational structure and style of management behaviour and these views as causal variables.

Myers and Flowers (1974) developed a —Five Dimension Model¶ according to this model five dimensions of the employees like knowledge, skills, health, availability and attitudes have to be considered.

PekinOgan(1976) developed The Certainty Equivalent Model and this Model consist of two major components (a) the net benefit and (b) the certainty factor, which provides the means of determining the net present value of the human resources.

R.L.WoodruffJr (1989) defined —Human Resource Accounting is an attempt to identify and report investment made in human resources of an organization that are presently not accounted for in conventional accounting practice.¶

Management Scholar Edward Lawler (1992) described human resources from investment perspective as —to be competitive; organizations in many industries must have highly skilled, knowledgeable workers. They must also have a relatively stable labour force since employee turnover works directly against obtaining the kind of coordination and organizational learning that leads to fast response and high-quality products and services¶.

### IV. HUMAN RESOURCES ACCOUNTING: A CONCEPTUAL FRAME WORK

#### 4.1 Benefits of HRA

Labour 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:

1. It develops effective managerial decision making.
2. It helps the efficient allocation of resources.
3. It enhances the quality of management.
4. It helps the development of management principles.

5. It helps in long term investment decisions.
6. It ensures good monitoring of effective uses of human resources.
7. It provides good basis of human asset control.
8. It develops human efficiency.
9. It increases human asset productivity.
10. It improves their morale, cooperation, job satisfaction and creativity.
11. It influences the individual behaviour, attitude and thinking in desired direction.
12. It facilitates good performance measurement assessing strengths and shortcomings of an organization.
13. The success of an organization depends on quality working force at all levels. It develops business success rapidly.

#### 4.2 Constraints of HRA

1. There is no specific guideline for measuring the cost and value of human resources.
2. Several methods are available in valuing human resources but there is lack of their wide acceptance.
3. While valuing the human assets, demand for rewards and compensation might be higher.
4. Sometimes discouraging attitude of human resources may frustrate them leading to low productivity.
5. The nature of amortization to be followed is yet to be fixed up.
6. Tax laws do not recognize human assets and in that sense it might be theoretical only.
7. There is need for developing suitable methods for its valuation.
8. IAS/IFRS/BASs do not provide any guidelines for the treatment of HRA approach.

#### 4.3 Major Issues of Human Resource Accounting—

The following are the major issues which should be considered for implementation of HR accounting. They are as follows:

1. The traditional accounting procedures, which have been practiced since long have come to stay as acceptable norms. As a result, whenever a new accounting system is developed, it is pitted against the strengths of the traditional system, which is considered to be comparatively objective and free from any bias. Similarly, in the case of HR accounting also, it is argued that it lacks symmetry with traditional resource as it cannot be included within the traditional definition of an asset that of a human
2. The historical cost approach to develop measures of HRA uses an amortization rate, which provides the figure of amortization to be charged to the profit and loss account every year. But it is very difficult to develop norms in this regard. Physically and mentally, individuals grow and deteriorate at different rates. Some grow more capable as a result of their work experience, others do not. Given the difficulty of predicting such changes, it is even more difficult to develop a means of writing off an individual's value. So far, precise measures for amortization of human assets have not been developed.
3. There is little agreement concerning the procedure in accounting for human assets. There are proponents and critics of the various approaches like cost and value approaches. This factor has become responsible for the slow development of the concept of HRA.
4. The physical assets can be owned and traded by an organization but the human assets cannot and can be only utilized in this regard. The physical assets have some realizable value of retirement but the human resources do not have any such value. They may involve payments of retrenchment, compensation, gratuity and other benefits. Human resources is an appreciating asset since manpower improves with time, with due regard to their ageing constraint, but for physical asset its increasing value at the time of its installation, starts immediately depreciating.
5. In the recent past, it has been observed that the value based measures of HRA are finding more acceptances with Flamholtz approach being progressively used. However, this approach depends heavily on the measurement of an individual's or a group's contribution of valuation. But, measurement of contribution, especially at the managerial levels, is quite a difficult task. As a result, this factor proves to be a hindrance in the development of the concept of HRA.
6. Another issue which has not been settled so far is about the rate at which the prospective stream of contribution is to be discounted or compounded to calculate its present and future value to the organization. A number of applications are available in this process.
7. If an individual is to be valued normatively, the model given by Flamholtz expects that the career path of individuals should be plotted over the span of his probable stay with the organization in the light of the current promotion, and retirement policies of the organization. But such exercise is tedious.

8. It is possible that apprehension regarding the effect of HRA on human behaviour may have forced the organization to be reluctant to use this system. HR accounting may lead to alienation as the people might feel that they have been reduced to as industrial input commodity. Publicizing of human resource data could have disastrous effect on the attitudes of employees.

#### 4.4 The Challenges of Human Resource Accounting

1. The ownership of human resources is practically impossible, therefore, it cannot be considered at par with other assets.
2. The measurement of Human Resources is subjective as different firms will use different methods for this purpose. Till date there is no model for valuation of Human Assets, which is widely acceptable and used worldwide.
3. There are a number of specific objective procedures for the selection of the factors to be included in the valuation of human resources. Therefore the subjective approach of the value in their regard makes it less reliable.
4. It is not economical for small business units as it involves heavy costs if the firms desire to install the HR accounting package in their organization.
5. The concept of human resource accounting is not recognized by Tax authorities and therefore, it has only academic utility. If the accounting standards board makes it mandatory to disclose the values of Human capital or Human Assets, then only the Direct or Indirect Tax Authorities will take into concern of HR Accounting.
6. Employees and unions may not like the idea, because HRA may lead to division among the ranks of employees. A group of employees may be valued lower than their real worth owing to reasons beyond the control of management. The employees may resist the idea of being treated like second class citizens, despite their contribution over a period of time.
7. There is no empirical evidence to support the idea that HRA is an effective tool to measure the economic value of people to their organization. There is very little data to support the contention that it facilitates better and effective management of human resource.
8. Measuring Intellectual Capital
  - i. Keep it simple
  - ii. Measure what is strategically important
  - iii. Measure activities that produce intellectual wealth

Measuring of intellectual capital can help managers and investors by providing a more accurate estimate of true value of the company than would a single accounting of its physical holdings.

i) Put people on Balance Sheet—"Every country, every company, and every individual depends increasingly on knowledge patents, processes, skills, and technologies, information about customers and suppliers and experience". This has brought up a new way of strategic thinking about "how to put people on the balance sheet".

ii) Intellectual Capital: Traditional financial statements are less illuminating with respect to the assets that create wealth than they were in the past. Intangible assets such as brand names, intellectual capital, patents, copyrights and expenditures for research and development now generate an increasing amount of wealth for firms. "Soft" assets are not recognized in financial statements.

#### 4.5 Models to Identify Human Resource

##### A) Replacement cost Model

It is one of the several methods of determining the value of an insured item. It is of two types, individual placement cost and positional replacement cost, where costs come under individual replacement cost, cost of recruiting, selecting, training and development. When the employee moves from one organization to another by leaving his present position, vacancy carrying and other relevant cost these types come under positional cost.

##### B) Historical Cost Method

This method was adopted in 1969 by R.G.Barry Corporation which was Footwear Company in USA, Columbus. This method calculates cost incurred on selecting, recruiting, hiring, training & development of human resource. Historical cost does not generally reflect current market valuation.

##### C) Opportunity Cost Model

It was first described in 1848 by French classical economist, expressing "the basic relationship between scarcity and choice". Opportunity Cost is not restricted to monetary or financial costs. "The cost of an alternative that must be forgone in order to pursue a certain action, the benefits you could have received by taking an alternative action."

#### D) Stochastic Rewards Model

This model was developed by Eric G. Flamholtz, recognized some major variables which helps to determine the value of an individual to the organization. He defined that movement of employees from one organization to the other organization as Stochastic Process. So he has suggested some approaches to assess the value of HR of the company.

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

Where E (RV) =expected realizable value

R<sub>t</sub>=Value derived by an organization in each possible state

P (R<sub>t</sub>) =Probability that the organization will have R<sub>t</sub>

t= time

n= state of exit

r= discount rate

i = 1,2,3.....

#### E) Lev and Schwartz Compensation Model

This model was developed by Lev and Schwartz in 1971 for human resource valuing. It is popular for calculating the value of HR by public sector like SAIL and BHEL, based future earnings of an employee till his retirement. The works in this model have been categorized groups such as unskilled, semi-skilled, technical staff, managerial staff and on different age groups.

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

Where

V<sub>r</sub>= value of an individual or r years old

I(t)= the individual's annual earnings up to retirement age

T= retirement age

r= discount rate specific to the person

t= active year of service

#### 4.6 World Demand of Human Resource Accounting

It is fact that the 21st century is era of Human demand, countries those have labour quality ruling the world with dominant technology. Countries like china and Japan forerunners in technology advancement, is all result of work force performance. Hence whole world realized that human resource is the real investment into business ventures that should only catch and stick the success waves. It can be say that INFOSYS, Bharat heavy Electrical Ltd (BHEL), DR.REDDY'S and Steel Authority of India Ltd (SAIL) are ever profit generators because recognized value of quality of labour and ordered peak priority so as company's yields ripped fruits with assistance of ripped force (quality employees) and can stand against any business storm and cope up effectively.

### V. DATA ANALYSIS

To process the data scientifically and to make it easily understandable statistical method of tabulation is used. Compilation of data was done with the aid of computers. MS-Excel was used for data processing and presentation.

#### HRA in India

The concept of human resource accounting was first incorporated by Bharat Heavy Electrical Ltd. (BHEL), a leading public enterprise, during the financial year 1973-74. Later, it was adopted by other leading public and private sector organization in the subsequent years. Some of these organizations are-

- Steel Authority of India Ltd (SAIL).
- Oil and Natural Gas Commissioning (ONGC).
- Oil India Ltd.
- Project and Equipment Corporation of India. (PEC).

- e. Engineers India limited
- f. Mineral and Metal trading Corporation of India.(MMTC).
- g. Electrical India Ltd.
- h. Hindustan Shipyard Ltd.
- i. Cement corporation of India (CCI).
- j. Infosys Technologies Ltd.
- k. Tata Engineering and Locomotive Works
- l. Southern Petrochemicals Industries Corporation Ltd (SPIC).
- m. Associated Cement Company Ltd (ACC).
- n. National Thermal Power Corporation Ltd (NTPC).

The introduction in Human Resource Accounting in Indian companies are given below-

**Table 1: Chronological Order of Human Resources Accounting Introduction in India.**

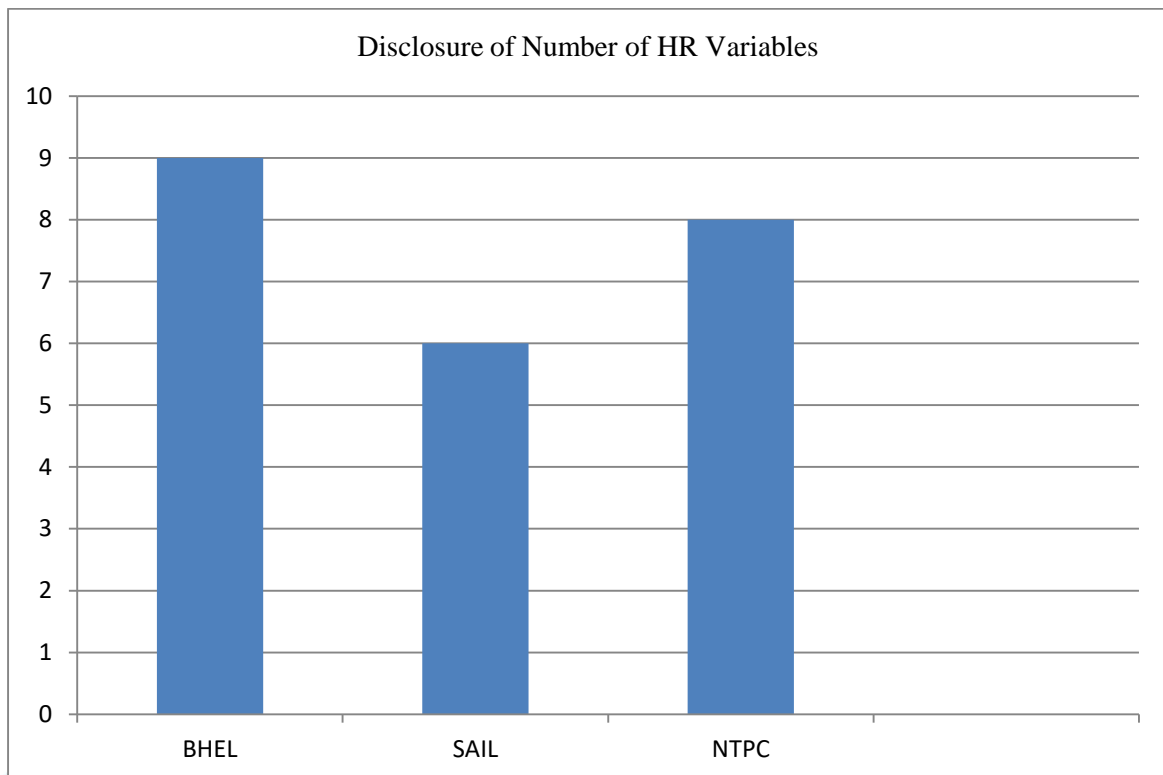
Sl. No	Name of the Organization	HRA introduced in year	Model
1	BHEL	1973-74	Lev and Schwartz Model
2	ONGC	1981-82	Lev and Schwartz Model
3	MMTC	1982-83	Lev and Schwartz Model
4	SAIL	1983-84	Lev and Schwartz Model with some refinements as suggested by Eric.G
5	NTPC	1984-85	Lev and Schwartz Model
6	INFOSYS	1995-96	Lev and Schwartz Model

Source: A Report on HRA from <http://www.indiamba.com>

**Table 2: Disclosure of Selected Variables for HR Related Information for Given PSUs**

D=Disclosure & ND=Non Disclosure

	Disclosure of variable	BHEL	SAIL	NTPC	Total
1	Value add	D	D	D	3
2	EVA	D	ND	ND	1
3	Value add per employee	D	ND	D	2
4	Valuation model used	D	D	D	3
5	Discount rate	D	D	D	3
6	Value per HR	ND	ND	ND	0
7	Value of HR per employee	ND	ND	ND	0
8	Number of employee	D	D	D	3
9	Age wise distribution	ND	ND	ND	0
10	Group wise distribution	D	D	D	3
11	Turnover per employee	D	ND	D(Generation per employee)	2
12	Employee remuneration & Benefit	D	D	D	3
	Total	9	6	8	23

**Figure 1: Disclosure of Number of HR Variables**

The total number of HR variables shown by BHEL is 9 and by SAIL is 6 and by NTPC is 8

## VI. SUGGESTIONS

Suggestion to sample companies

1. SAIL & NTPC Ltd. Should provides more information regarding its EVA. SAIL Ltd. should include value added per employee in its annual report.
2. BHEL and SAIL Ltd. should also report for Value of HR, Value of HR per Employee, Age and Gender Wise distribution in its annual report.
3. SAIL should provide information regarding turnover per employee in its annual report.

Suggestion to Government

1. The measurement is subjective as methods for this purpose, so government should suggest specific model that is acceptable to all companies.
2. The government should made mandatory to value and disclose HR related information in its annual report. To motivate companies for HRA, government should provide incentives like Subsidy, Tax exemption.

## VII. CONCLUSION

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 behavioural approach might be suitable for hair 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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