

# Human Resource Accounting Practices in Bharat Heavy Electricals Limited (BHEL)

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#### Abstract:

Human resource accounting is a branch of accounting. Employees are the most prestigious asset for carrying out organisational objectives. There is an apparent need for proper information about their human resources' cost, value, and performance. To provide significant details about effective human resource management, a new and specialised accounting branch, known as human resource accounting (HRA), has been developed. Identification, measurement, classification, summarisation, and reporting of data about human resources to investors for efficient decision-making about an organisation's human resources constitute the accounting of human resources. This paper attempts to explain and assess Bharat Heavy Electricals Limited's (BHEL) HRA procedures.

**Key Words**: Human Resources Accounting (HRA), Human resource value (HRV)

## Introduction

Nowadays, human resources are an organisation's most prestigious asset. Human resources play a role in an organisation's production process. Since human resources power all organisational operations, these resources must be valued. Financial statements should be used to inform investors, management, and other stakeholders about the valuation process. Human resource accounting is an information system that notifies management of company human resource changes over time. Industries began realising human resources' worth and significance in the early 1990s. An organisation has both financial and material resources. Any firm that has human resources must be aware of the entire cost associated with such resources as well as additional information regarding the impact of those resources on income, net profit, revenue, etc. Accurate documentation of human resource scores and impartial data about human resources are required to achieve this goal. Because of all of this, the organisation of the records can monitor how they employ their human resources, and if the organisation of the necessary documents is lacking,

It might not use human resources efficiently and fail to meet its goal. Financial statements are the primary data source regarding an organisation's resource position and performance. Traditional accounting systems do not provide information on an organisation's human resources, which could lead to financial statements being presented unfairly. Instead, the information is solely about the physical and economic resources of the company. Experts in this sector included Dr.Rao (1983), Kenneth Sinclair (1978), William Pyle (1967), Lev and Schwartz (1971), Shultz (1960), Kenneth Sinclair (1978), and Flamholtz (1973). They all offered suitable methodologies for determining an employee's value to the company. According to the *American Accounting Association (1973)*, "HRA is the process of identifying and measuring data about Human Resources and communicating this information to interested parties." *Likert (1973)*, "HRA is an activity devoted to attaching monetary estimates to the value of a firm's human organisation and its customer goodwill" *Flamhoitz Eric. G, (1999)*, "HRA as an accounting for people as an organisational resource. It involves measuring the costs by organisations to recruit, select, hire, train, and develop human assets. It also involves measuring the economic value of people to the organisation". *Ravindra Tiwari*,

(2012), "Human resource accounting is an attempt to identify, quantify and report investment made in Human resources of an organization that is not presently accounted for under conventional accounting practice".

# **HRA** – Objectives

- a) Determining the value of human resources
- b) Determining the cost and worth of the organisation's human capital.
- c) Examining the cognitive and behavioural effects of this data.
- d) Compiling the organization's human capital expenditures.

#### **Literature Review**

Verma, S. & Dewe, P. (2008) In this study, while most respondents regarded the measurement of human resources as necessary to their organisation, minor or moderate progress was expected in measurement practices over the next few years. The main reasons for this included a lack of organisational support, uncertainties about what should be reported, lack of precision in current measurement practices, and sensitivities around what should be reported.

Patra, R., Khatik, S.K., Kolhe M. (2003) HRA helps measure employees' value, allowing management to make vital human resource decisions to increase production. It requires the measurement of the performances of an organisation and the optimum use of the resources under its direct and indirect control. They have examined the correlation between the total human resources and the personnel expenses for their fitness and their impact on the production of BHEL. The HRA valuation is essential for decision-making to achieve the organisational objectives and to improve the output.

Dr. Dalvadi, Y. (2010) This paper focuses on the Human Resource Accounting Practices of selected private and public limited companies. It was found that the company does not disclose all the HR accounting variables adequately, but it should reveal them clearly for a better understanding. The study also suggests that the government should make it mandatory to value and disclose HR-related information in its annual report and to motivate companies for HRA, govt. They should provide incentives like subsidies and tax exemptions.

Joshi, U. & Mahei, R. (2012) In this research paper, the researcher has analysed the valuation of this vital asset, which is not reflected in the books of accounts. Still, HRA needs to enhance goodwill and attract investors, so in this paper, an attempt has been made to do a comparative study of human resource accounting practices. The variables that are important for human resource accounting are identified, and by analyzing, the annual reports of these selected companies' scores are assigned to the organisations, and mean scores for these organisations are calculated of these selected companies (CCI, HPCL, Infosys, and Rolta India Limited) ranks to the companies are also given based upon the extent of the HRA information reported in their annual reports. HPCL and INFOSYS have been better at disclosing other companies.

Hossain, M.S. (2015) Human Resources is now considered an asset of the company, as the hard work and intellect of HR help a company earn profits. The monetary unit assumption of accounting does not allow reporting the value of company employees in the company's financial report because the value of HR is difficult to in monetary units. Even though businesses worldwide report their human resource-related costs in their financial statements, they cannot disclose the expertise of their human capital or how these resources are employed. This paper's primary goal has been to compile several models and assumptions, which have been referenced and demonstrated here for accurate valuation and assumptions, and those models and assumptions have been cited and illustrated here for proper valuation and disclosure of human resources in the financial statements.

Dr. Prasanna, S.D. (2021) In this Research study companies have to recognize and appreciate the value of their employees and their worth and capital investments. The study focuses on the calculation of the value of human resources at different levels of the organization and to determine human resource efficiency. HRA is not any discipline in Human Resource Management. However, it has not received wide recognition because of a significant

form of factors. Now, because of liberalised and globalised surroundings, it's time to supply the required impetus to the present branch of accounting, typically money accounting.

Mohammad, A.I., Mohammad, K & Mohammad R. (2013) The study forms mainly HRA, the practical benefits and difficulties in implementations, and the extensive review of related literature based on high work. The major benefits of such accounting are that it develops effective managerial decision-making and quality of management, prevents misuse of human resources, increases human asset productivity, improves morale, job satisfaction and creativity, etc. As a result, the replacement cost valuation method and non-monetary behavioural approach might be suitable for the hair valuation of an organisation's human resources. Another challenge is the nature of amortization. Valuing human resources and their accounting procedures is incredibly challenging because there isn't a formal IAS or IFRS for these treatments.

Dutta, A. & Roy, R. (2008) In this study, the standard method of estimation of HRA is still in an evolving stage, and accounting bodies worldwide have not accepted any model of HRA as the benchmark for HRA. The model reveals the erosion and recovery of business value from security incidents. Experiments with the model suggest that information security drills, analogous to fire drills, may help maintain user compliance in addition to usual training and awareness activities. They also discuss how their model can be extended to help justify an organisation's investments in information security, an objective that has been infamously difficult to achieve in practice.

Kaur, S., Venkatraman, A.& Singhania, M. (2014) Human resources assist companies in achieving their goals with their innate pool of knowledge, skill, leadership, creativity, and talent. However, the current accounting system is not able to provide the value of human resources. They find HRA disclosures deficient in Indian companies, with only five companies reporting HRA in their annual report, just 1% of the sample set of companies. Furthermore, HRA disclosures made by companies are unstructured, inconsistent, and incomparable across companies and industries. Therefore, we examine the extent of HRA measurement and reporting practices of selected Indian companies among the National Stock Exchange S&P CNX 500 companies. We critically analyse these and rank the companies based on the extent of disclosure of HRA information in annual reports of companies.

Dr. Soshte, R.A. (2017) The Physical assets are used to increase the earning capacity of any business organization, likewise, human resources are essential assets used to increase productivity, earning capacity, increasing wealth and profit, market value, economic value added, etc. Because of the global transition, the service industry has become one of the leading industries mainly based on human resources. This study focuses on the current Human Resources accounting practices and measures HRA's impact on organisational performance. This paper highlights the objectives and process of HRA in the Indian context. The paper's primary aim is to study human resources accounting, identify the issues and challenges, examine these issues and challenges, and give suggestions based on the study's findings.

Hariono, J., Orbaningsih, D. & Lisa, O. (2023) The majority of this study's findings, which are based on the studies of al Mamun (2009) and Widodo (2014), suggest that human resource accounting disclosures have an impact on firm performance. It makes perfect sense to carry out additional research in Indonesia and add uniqueness to the body of knowledge regarding the disclosure practices of human resource accounting in Indonesian companies and their relationship to company performance, as there aren't many studies in this area. Studies that can offer practitioners and regulators empirical proof that human resource accounting significantly improves a company's financial performance. HR accounting disclosures are positively impacted by test findings from businesses adopting GRI reporting standards, and HR accounting disclosures significantly affect financial performance.

Dr Sharma, N. & Shukla, H. (2012) conducted a study to discover HRA disclosure practices in selected private and public limited companies. In this study, the researcher has taken four Indian companies, viz., two public and two private sector companies. For analysis purposes, this study has used content analysis for disclosure practices of HRA by using different methods. This study reveals that the HRA disclosure level is not so high. Still, it is appreciable that selected companies are adopting more or less the HRA practice, and it also shows that the public sector is following better HRA disclosure practices than the private sector.

Jena, B.M., Maharana, N., Chaudhury, S.K., & Mohanty, S. (2022) This study has been aimed at verifying the influence of HRA practices and their impact on the financial performance of 30 select small-scale industries in Odisha. Financial data for the purpose have been collected from secondary sources for five years, from 2016 to 2020, on 30 small-scale industries, out of which 15 are from the service and manufacturing sectors. Using the panel fixed and random effect regression models, the study's findings confirm that human resource accounting is an essential element of management in small-scale industries as it directly impacts the financial performance measured in terms of ROA and ROCE.

Ratti, M. (2012) Human Resource Accounting (HRA) has assisted management in optimising the utilisation and strategic planning of human resources within organisations. However, despite significant advancements in this field, it remains unfortunate that there is still no universally accepted method or standardised approach for valuing human resources, recording them in accounting books, or disclosing relevant information through financial statements. The study focuses on calculating the value of human resources at different levels of organisation & determining the human resource efficiency quotient. Fifteen Companies are examined for the measurement of human resource measurement. The incorporation of the value of HR is very expensive, and it is not easy to calculate if they calculate it. The value will not indicate the proper position of the human resource.

Arora, A. &Panchal, A. (2021) In this study the objectives determine the benefits and challenges of valuation and disclosure of human resources based on prior art; the study found a low adoption rate of HR accounting, no standard method for the valuation of human resource, no legal provision for the adoption of it, and disclosure of the same in the annual reports of the organization and the study recommended adopting the HRAP as there is evidence of an increase in the profitability and growth in efficiency of the employees.

Dr. Deval, A. (2021) HR is a valuable asset that a corporation possesses and on which its profitability depends. Human Resource Accounting is often examined from two dimensions: investments in human resources and, therefore, the value of human resources. The expenditure undertaken for creating, increasing, and updating the human resource quality is thought of as an investment in human resources.

Shaheen, I., Noor, A.& Sultana, A. (2016) HRA calibrates the value of the human asset, thereby helping businesses optimally exploit their employees' skill sets, talent, knowledge, and experience. HRA thus assumes importance from the perspective of the analysts too. According to the researchers, HRA is now undertaken by medium- and large-scale businesses in India, given that they have become more conscious of HRA's benefits in revenue, productivity, and flexibility in skill development. The researchers have tried to evaluate the HRA practices obtained in Infosys Technologies Limited and BHEL. Further, they try to ascertain the usefulness of HRA in HR decisions.

Pandey, N.N. (2012) To provide a modest contribution to the body of knowledge already available in the area of HR reporting practices in India, the purpose of this article is to investigate the extent of human resources (HR) valuation and disclosure methods implemented in some of the top Indian corporations. Three years of annual reports of fifty NIFTY-based companies listed on the NSE have been studied to achieve this purpose using the content analysis technique. The findings reveal that out of fifty leading companies in India, only one company (ONGC) follows the HRA practices. Furthermore, the extent of HR disclosure practices is far from satisfactory. Since the analysis of the annual reports is based on only fifty NIFTY-based companies, findings cannot be generalised to all Indian companies.

## **Measurements of Human Resource Accounting**

It is well-known that measuring is the practice of using numbers to express an object's attributes. Here, how can the cost of human resources be calculated? This concern arises because one of the most significant challenges in HRA is putting a monetary value on various aspects of HR expenses, investments, and employee value. Different methodologies have been developed to assess human resources, some based on past costs and others on potential profits. The two primary methods that are typically used for this are one cost-like historical cost method, standard cost method, opportunity cost method, current purchasing power model, and replacement cost method, and second

value-based methods embrace Hermanson's adjusted discounted future earnings model, Jaggi and Lau model, Likert Model, Lev and Schwartz present value of future earnings model and rewards valuation model, Eric Flamholtz model, net benefit model, and Morse model, Roslender and Dyson Model. Of these Lev and Schwartz's model became popular. While each strategy has its drawbacks, one model has proven to be incredibly reliable.

# Lev and Schwartz suggested the following formula

The Lev and Schwartz model is the most commonly used in human resource accounting. This model states that the entire net present value (NPV) of an organization's labour costs is included in its human resources. Since it offers a calculation, the present value of future revenues method, sometimes referred to as the Lev and Schwartz method, is arguably the most scientific approach. As the name implies, it accounts for the present value of future employee earnings. This concept was established in 1971 by Lev and Schwartz. The following is the formula:

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

Where,

Vr = the value of an individual r years old

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

t = the retirement age

r =the discount rate specific to the cost of capital to the firm

The model divided the entire workforce into several age groups and homogenous groupings like unskilled, semi-skilled, technical, managerial, and so forth. They were utilising the technique to get the present value of HR and the average earnings for various age and class groupings. To arrive at the present value, Lev & Schwartz also advised using the companies' cost of capital to discount the future earnings of the employees. They understood the financial worth of each employee to the company. Numerous organizations have adopted this widely recognised model. This approach values human assets by considering the employee's current age, service life, future earnings, and discount rate.

The Lev and Schwartz proposed model suffers from the following weaknesses and limitations:

- It rejects employee productivity or manufacturing. It's an input measure.
- No consideration is given to each employee's service status.
- Elements that contribute to each employee's more significant earning potential, such as seniority, expertise, experience, and ability to negotiate, could result in a different pay scale, but they are also disregarded.
- The attrition rate inside the organization is also disregarded, as are the training costs that the corporation incurs for its staff.

# **Research Objectives**

• To investigate the discloser practices of HRA in annual reports of Bharat Heavy Electricals Limited.

## Research Methodology

Data source: The study "Human Resource Accounting Practices in Bharat Heavy Electricals Limited " focused only on the accounting practices of businesses over five years. In its yearly report, the research has found different

reporting practices of Human Resource Accounting. To achieve the first or second objectives, the researcher collected information from annual reports or websites and examined human resource accounting evaluation practices based on the information given in those reports. The reporting practices of a few public and private businesses have been investigated. A comparative analysis was conducted, using two companies from the public and two from the private sector as the sample. Download annual general reports from Bharat Heavy Electricals Limited's official websites. The data used in the study was collected from the annual reports of Bharat Heavy Electricals Limited from 2006-07 to 2010-11. The present study will help develop insight into HRA in various interest groups as well as in improving the HRA practices of BHEL.

**Research Design:** This study uses secondary data.

Data Analysis: Journals, Articles, Websites, Newspapers, official government reports, and various books.

Company profile: Bharat Heavy Electricals Limited (BHEL) is a significant player in India's power and engineering sector. In 1964, the Indian government founded Bharat Heavy Electricals Limited. It is an Indian central government public sector undertaking and the largest government-owned power generation instrument manufacturer. It is under the authority of the Ministry of Heavy Industries and is owned by the Government of India. It has developed into India's largest engineering and manufacturing firm in the energy and infrastructure sectors over more than 60 years. Since the financial year 1974-75, the Lev and Schwartz model has been used. It is the first company in India who provide HRA. In 1978-1979, BHEL included information on human resource accounting in a separate section called "Human asset Accounts" in its annual reports. BHEL is a leading power equipment manufacturer worldwide and one of the earliest and leading contributors to building an Aatmanirbhar Bharat. They provide their clients with a wide range of goods and services in the fields of power, thermal, hydro, gas, nuclear, and solar PV transmission, transportation, oil and gas, defence and aerospace, and emerging markets like BESS and EV chargers. BHEL is closely in line with the goal of an independent India, from expanding the nation's ability to generate electricity to building up a variety of skills in vital industrial and strategic areas. Their dedication to serving society at large, in addition to our business interests, is demonstrated by our consistent spending of over 2.5 per cent of our turnover on research and development (R&D) and innovation, world-class manufacturing assets, the development and adoption of new technologies, and the creation of sustainable business solutions and initiatives in the areas of youth skill development, health and hygiene promotion, education, cleanliness, and environmental protection. BHEL provided information on multiple employees, value-added, employee compensation and benefits, value added per employee, employee turnover, and human resource value on an age-, group-, and overall basis. The company followed the 11.54% (12%) discount rate. It has more than 34,000 highly educated and skilled employees, so the HRA is important in BHEL. The company provides information regarding particular employees under section 217(2A) of the Companies Act, 1956, with Companies Rules 1975. Additionally, it conveyed ratios like Human Resources (HR)/Total Resources (TR), HR/fixed asset (FA), turnover/HR, PBT/HR, and HR/VAD. The number of employees has increased from 42,121 in 2006-07 to 46,748 in 2010-11.

### (A) Disclosure of HRA

It was discovered that BHEL has consistently and flawlessly published the HR valuation for each of the previous five years. In its annual report, BHEL has revealed the HR valuation as part of a "balance sheet including intangible assets" and as a supplemental statement. BHEL has not, however, received an audit of the HRA data from the auditors.

### (B) Method of valuation

The Lev and Schwartz model's impartiality in human resource appraisal is one benefit of BHEL's use of it. However, the inadequacies of this model have a detrimental effect on precisely appraising HR at BHEL.

The Lev and Schwartz model adopted by BHEL is given below:

 $HRV = P \times 12 \times N \times E \times I/F$ 

Where:

- HRV Human Resources Value of the group of employees in the particular salary grade.
- P × 12 represents the annual compensation, including various components like Dearness Allowance (DA), City Compensatory Allowance (CCA), House Rent Allowance (HRA), Provident Fund (PF) contribution by employers, etc.
- N is the total number of employees in the grade.
- E is the Efficiency Factor, which varies based on the amount of experience. It decreases by about 5% for each accounting period of five.
- I am the Incremental Factor, assumed to be 5% for every five years. This assumption is based on the idea that people with five years of experience are typically promoted to the next higher grade.
- F is taken at 12% per annum, representing the weighted average capital cost to the company.

**Behavioural Analysis:** The data used in the study has been collected from the annual reports of BHEL from 2006-07 to 2010-11. A critical variable from the study point of view:

• Human Resource Value

## **Human Resource Value (HRV):**

Indices for Human Resource Value of Bharat Heavy Electricals Ltd.

For the year ended on 31st March, Particulars

HRV (Rs. In crores)

#### **HRV-Index**

For the year ended on 31st	HRV (Rs. In crores)	HRV-Index
March Particulars		
2006-07	7182	126.37
2007-08	8323	146.45
2008-09	9894	174.09
2009-10	13171	231.76
2010-11	18476	325.10

The total Human Resource Value at BHEL was Rs 7182 crores at the year-end 2006-07, which increased remarkably during the last 5 years to reach Rs. 18476 crores at the year-end 2010-11. This increase is high, around 157.25% in the base year, i.e. 2006-07.

#### 4. LIMITATIONS:

The study is based mainly on secondary data only.

The study is based on non-monetary information, the monetary factors are ignored.

The major limitation of this study is the lack of adequate corporate disclosure practices in India.

## **Rationale of study**

From an accounting perspective, human resource management is crucial in any firm. The stakeholders have demanded that human resources be pretty valued, that the valuation be documented in the accounts, and that the financial statements fairly disclose this information to improve employee productivity and managerial performance. Developing human resources does not require revenue expenditure. Its influence on employees' capacity building yields long-term benefits. There is a true need for accurate and comprehensive data that can be applied to assess and

enhance human resource management. HRA is a subset of social accounting when accountants use their specialised knowledge to solve societal issues.

#### **Conclusion**

In conclusion, the study of HRA, mainly throughout the framework of BHEL, highlights the essential part that human capital plays in achieving organisations and the necessity of thorough and precise valuation procedures to guide choices and enhance output. BHEL focuses on its adoption of the Lev and Schwartz model for HRA. It discusses BHEL's reporting practices and valuation method and analyses Human Resource Value (HRV) indices over five years. The objectives of HRA, such as determining the value and cost of human capital, examining behavioural effects, and compiling human capital expenditures, are outlined.

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