Human Resource Accounting Methods and Practices in India - Conceptual Framework

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ABSTRACT
Human resource accounting (HRA) has very high significance not only for the management, but also for analyst and even for employees. It helps management in better utilization, planning management of human resources in the organization while for analyst, Even today, when a good deal of work has been done in this field, it is very much unfortunate that there is not only set pattern or generally accepted method either for valuation of human resource or for their recording in books of accounts or for the disclosure of information by means of different statements. Human resource is one of the most important back office operations of any organization or business. The skills, creativity and ability of human beings cannot be replaced by machines. No machine can ever come up with a unique advertising idea without the human input. Thus companies must learn to recognize and appreciate the value of their employees. This paper highlights the significance of Human resource valuation and methods to measures human assets value. This paper also describes true costs of planning and recruitment and depicts the limitations of human resource accounting.

KEYWORDS: Human resources accounting, human resource valuation, cost, model, investment.

INTRODUCTION
In present scenario, despite the global change, Human Resource Accounting is major issue for research & analysis in management. Human resource has always been taken as a ‘soft & light issue’ whose contribution generally can’t be measured in monetary terms. There is no role of recording investments, benefits rendered by employees, valuation & accounting of human resource in conventional financial accounting. human resources is not considered in the different balance sheet models, and only in the profit and loss statement human resource costs / expenditure are taken in account, such as salaries and staff welfare expenses (including pensions). The number of employees classified in categories is mentioned only in the explanatory report, the same as the board of directors' payment. Recent literature has focused on a broader measurement, namely that of "intellectual capital." Despite those who consider intellectual capital a new approach, it is really an extension of HR accounting since without the underlying concept of HR investment there can be no intellectual capital development. Human capital also provides expert services such as consulting, financial planning and assurance services, which are valuable and very much in demand. As it is the combination of HR & Accounting, joint efforts of behavioral scientists, accountants and managements are needed for the working and development of HRA.
STATEMENT OF THE PROBLEM
In the early 1990s industries were recognized the value and importance of human assets. When service sector started major contribution to a country’s economy the significance of human assets got prominence. Knowledge sectors like Information Technology (IT), Banking, Teleservices and others the intangible asset especially humans contributed highly to the building of shareholder value. Intellectual power of employees only major input to these sectors. The critical success factor for any knowledge based company is its skilled and intellectual work force. There is an almost universal belief among business executives, investment managers and other stakeholders that consistent human capital metrics would be valuable. Moreover, investors would take human capital data into consideration if it could be provided on a reliable basis that would enable intelligent comparison.

CONCEPT OF HUMAN RESOURCE ACCOUNTING
Human Resource Accounting definition refers to a system of accounting that tracks the financial, human, and non-financial aspects of an organisation’s employees. It is used to measure the effectiveness of an organisation’s human resources strategy and to evaluate the performance of employees. A Human Resource Accounting system should include metrics that measure employee engagement, training effectiveness, and productivity. It should also track employee turnover and absenteeism. The primary purpose of a Human Resource Accounting system is to provide an accurate and reliable record of employee performance. It should also be used to measure the effectiveness of employee training programs and evaluate employees’ performance.

The HR accounting process involves the following:
- Identifying and understanding the needs of the organisation and its employees
- Identifying and developing the appropriate human resources
- Implementing effective recruitment, selection, training, development, and compensation programs
- Maintaining an accurate and up-to-date HR system
- Ensuring that all employees are treated equally and fairly
- Maintaining an accurate and up-to-date payroll system

OBJECTIVES OF THE STUDY
The objective of the paper has three dimensions:
❖ To identify the Human Resource Accounting (HRA) practicing companies in India
❖ To study the recent trends and methods of Human Resource Accounting
❖ To study the issues and true costs of planning and recruitment in HR sector
❖ To study the limitations or objections of HRA

RESEARCH METHODOLOGY
The kind of Research being conducted here is “Analytical Research” and adopted descriptive and comparative methodology for this paper. In this Research the facts & the information as so gained from various secondary sources have been used to make an analysis of the current scenario of Human resource Accounting. The data for the present study is collected from the news papers, journals and on the views of writers in the same discipline. As well as the reference books, magazines and Internet also used for the purpose.
HUMAN RESOURCE ACCOUNTING PRACTICING COMPANIES IN INDIA

Even though, many benefits have contributed by HRA, yet its development and application in different industries has not been encouraging. Because Indian companies act 1956, does not provide any scope for showing any information about human resources in financial statement. 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. The companies, who are presently reporting human assets valuation, include:

1. Bharat heavy Electrical Ltd (BHEL).
2. Steel Authority of India Ltd (SAIL).
3. Oil and Natural Gas Commissioning (ONGC).
4. Oil India Ltd
5. Project and Equipment corporation of India (PEC).
6. Engineers India limited
7. Mineral and Metal trading Corporation of India (MMTC).
8. Electrical India Ltd.
9. Hindustan Shipyard Ltd.
10. Cement corporation of India (CCI).
11. Infosys Technologies Ltd.
12. Tata Engineering and Locomotive Works

METHODS OF HRA

The two most common methods of HRA are:

❖ Cost Approach
❖ Economic Value Approach

Cost Approach is based on the cost incurred by the organization on account of an employee.

Economic Value approach is based on economic value of the employees and their contribution. This approach looks at the employees as assets and possible benefits due to these assets.
COST APPROACH
Cost is the expense to acquire a resource to obtain service and benefits thereof. This expense has two portions – current expense and asset portions. Current expense is the amount incurred to derive benefits in the current financial year. Asset portion is the amount incurred on expected benefits in future. Differentiating clearly between both is not easy.

Certain other ways to classify cost are – Historical Cost, Opportunity Cost, and Replacement Cost. These costs can be further divided into direct and indirect cost. Direct cost is the expense made on hiring, training and placement of new employees while indirect cost is the time spent by the supervisors and trainers on these activities.

(a) Historical cost is defined as the expense made on hiring, training, placement, etc. in the past. It also considers the salaries and other payouts.
(b) Opportunity cost method looks at what would have been the returns if the cost incurred on HR was invested somewhere else. This method has a limited application as it is very subjective.
(c) Replacement cost method is deployed to calculate the cost if existing employees were to be replaced by new ones. It considers separation cost of existing employees and hiring, training, placement, etc. cost of new employees.

METHODS FOR VALUATION OF EXPENSE CENTRE GROUPS
Flamholtz proposes 3 methods for valuation of expense centre groups here:

i) Capitalization of Compensation
This method involves capitalizing a person’s compensation to determine his value to the organization. Similarly, the value of the group will depend on the members comprising the group. This method is not an ideal method as it ignores all non-monetary factors and determinants. For example: All the employees in the HR department may be earning 70 Lakhs annually. This becomes the value of the group to the organization.

ii) Replacement Cost Valuation
Replacement cost is defined as the cost that will have to be incurred on hiring, training, developing, etc. of a new group to replace an existing group to obtain services equivalent to those rendered by the existing group. This method is not ideal in the long run as it has subjective estimates.

iii) Original Cost Valuation
This method is similar to the replacement cost valuation except for it determines the value by considering the actual cost that was incurred for hiring, training, development, etc of the group. This method can be used to estimate the cost of building an effective group. Even in this method the factors like group dynamics and teamwork are ignored. Also, the fact that you cannot replicate people is also ignored.

ECONOMIC VALUE APPROACH
The economic value of Human Resource is the financial benefits they offer through their services at present and those expected in future. This approach is also known as Human Resource Value Accounting (HRVA). This approach can be considered for an individual, a group or the organization. There are monetary and non-monetary methods of calculating this value.
MONETARY METHODS

i) Flamholtz’s Stochastic Rewards Valuation Model

Stochastic Rewards Model was developed by Eric G. Flamholtz. This model identified some major variables that are help to determine the value of an individual to the organization. He determined the movement of employees from one organization to another as Stochastic Process. Eric G. Flamholtz suggested different approaches to assess the value of HR of the company in this model. In order to quantify human resource value the period any employee work in the organization, role of employee and value of present position are determined and discounted expedited service rewards. To be precise an employee value is the product of individual conditional value and the profit that the individual offers to the organization in his/her service life. The conditional value comprises of productivity, transferability and promotability, skills and activation levels are also the determinants of an individual’s conditional value.

Flamholtz has measured the expected realizable value of an individual as

\[ E(RV) = \sum_{i=1}^{n} \sum_{t=1}^{n} \left( R_{t} \cdot e^{P(R_{t}) \cdot \frac{P(R_{t})}{1+r^{t}}} \right) \]

Where
- \( E(RV) \) = expected realizable value
- \( R_{t} \) = Value derived by an organization in each possible state
- \( P(R_{t}) \) = Probability that the organization will have \( R_{t} \)
- \( t \) = time
- \( n \) = state of exit

\( r \) = discount rate
\( i = 1, 2, 3 \ldots \)

ii) The Lev and Schwartz Model

This model developed in 1971 by Lev and Schwartz for valuing human resources. Lev and Schwartz model is popular for calculating the value of HR used by public sector like SAIL and BHEL. It is based future earnings of an employee till his retirement. According to the model value of human assets is estimated for a person at a given age which is the present value of his remaining future earning from his employment and this represented by the following.

\[ V_{r} = \sum_{t=r}^{T} \left\{ \frac{I(t)}{(1 + r^{t-r})} \right\} \]

Where
- \( V_{r} \) = value of an individual or \( r \) years old
- \( I(t) \) = the individual’s annual earnings up to retirements age
- \( T \) = retirement age

\( r \) = discount rate specific to the person \( t \) = active year of service

The model categorized whole work force in the various homogenous groups such as unskilled, semi-skilled, technical staff, managerial staff and so on and also into different age groups. By using the formula calculated average earnings for different classes and age groups and present value of HR. Lev & Schwartz
also recommended the use of cost of capital of the organizations for the purpose of discounting the future earnings of the employees to arrive at the present value. They recognized individual employee’s economic value to the organization.

iii) Morse Model
The value of human resource is equivalent to the present value of the net benefits derived by the enterprise from the services of its employees. The following steps are involved under this Model:-

(a) The gross value of the services to be rendered in future by the employees in their individual and collective capacity
(b) The value of direct and indirect future payments to the employees is determined
(c) The excess of the value of future human resources (as per “a” above) over the value of the future payments (as per “c” above) is ascertained. This represents the net benefit to the enterprise because of human resources.

iv) Hekimian and Jones Competitive Bidding Model
In this method managers bid for existing human resources and determine the value of the employee. The highest ‘bid’ is the value of that resource. This model is based on the managers’ valuation of the employees.

v) Sk. Chakra borty Model
Sk. Chakraborty of Indian institute of management Calcutta was the first Indian to attempt at valuation of resources. This model was similar to historical cost model, he noticed the cost of recruiting, learning, selection, training and development of each employee should considered for acquisition cost method of valuation and be treated as different revenue expenditure, this is subject to gradual written off. The balance, not the written off amount, should be shown separately in the balance sheet under the head of investment. To derive the present value of HR average feature tenure of employment of employee’s and average future salary should discounted at an appropriate rate, it is shown as investment in the asset side of balance sheet which is to be added to the capital employed in the liability side.

separate valuation can be made for managerial and non-managerial employee the discount calculate the present value should take as expected average after tax return on capital employed, taken from the conventional balance sheet. The chakraborty model basically considered a combination of acquisition method and present value.

\[ V = \sum_{i=1}^{n} \left\{ \frac{N_i \times AS_i}{(1+K)^n} \right\} + AC \]

Where
V= Value of a category of employee
N=Number of employees
AS= average annual pay

K= after tax return on capital employed

i=1, 2, 3……n years (average tenure of employed)
vi) Hermanson’s Un-purchased Goodwill Model
Hermanson proposes that exceptional earnings indicate the value of human assets. Human assets are not shown in the balance sheet. Example: A telecom company earns 25% more profit than its competitors. That is a telecom company earned USD 8 billion profit and its competitors earned USD 6 billion profit. This 25% additional or exceptional earning indicates the value of human assets which are not listed in the balance sheet. These human assets are not owned by the company, but their existence in the company leads to creation of this exceptional earning. This is the un-purchased good will model. This model was intended to be deployed for published balance sheets, but it is also used now to forecast future performances.

NON-MONETARY METHODS
Non-Monetary methods rely on predicting the value of skills, capabilities attitudes of the employees in terms of rankings, ratings or indices. These methods can be a substitute to the monetary methods and also have predictive value. They are based on simple skills and capability inventory, Psychometric tests, Performance Evaluation, 360 degrees Feedback etc.

i) The Likert and Bowers Model
This model developed in 1960s proposes use of casual, intervening and end-result variables to determine the value of a group to the organization.

❖ Casual variables are the ones which can be managed and controlled by the organization (Independent Variable). Examples: Managerial behavior, organization structure.
❖ Intervening variables reflect the competencies, capabilities of an organization and involve group processes (Independent Variable). Examples: Organizational culture, environment, processes, leadership, employee satisfaction.
❖ End-result variables reflect the achievements of the organization, total productivity, the efficiency and productivity of the organization (Dependent Variable). Examples: Sales, cost

Scenario: If the organization structure and the attitude of the middle management (casual variables) are superlative or comparable to the best, then the first part of the battle is won. If the processes, leadership are excellent and the organization culture is of meritocracy (intervening variables) then the second part of the battle is won. These automatically build the confidence that the organization will perform well on key performance metrics. If the dependent variables such as end-results of sales, customer service are comparable with the best in the industry, then the last and final part of the battle is won. Now determining the value of the group becomes relatively easy.

ii) Ogan Model
Pekin Ogan (1976) has given “Net benefit model”. It is an extension of “net benefit approach” as suggested by Morse Model. Organ Model says, the certainty with which the net benefits in future will accrue should also be taken into account, while determining the value of human resources. Organ Model requires the following to be determined:
• Net benefit from each employee.
• Certainty factor at which the benefits will be available.

The net benefits from all employees multiplied by their certainty factor will give certainty-equivalent net benefits. This will be the value of human resources of the organization.
TRUE COSTS OF RECRUITMENT
Once the organization establishes the number of employees it needs to hire in various functions, it looks at different sources to get right candidates. These sources could be consultants, job portals, referrals, advertisements, campus, internal job posting etc. The cost involved in all activities of recruiting human resources is called cost of recruitment. This may also attract future human resources.
Direct cost will be the actual amount spent on recruitment whereas indirect cost will be the cost of time of supervisors, managers on this activity.
Direct cost would be cost of advertising, designing advertisements, registration fees for recruitment portals, creating internal advertisements for encouraging referrals, internal job postings and salaries of recruitment executives spending full time on recruitment.
Indirect cost would be the cost of time of supervisors and managers.

True Cost of Recruitment = Direct Cost of Recruitment + Indirect Cost of Recruitment

TRUE COSTS OF HR OPERATIONS
How do we calculate what is the HR Operation Cost for the Company?

HR Operation Cost = Sum of Direct costs of HR + Sum of Indirect costs of HR

Direct HR costs include salary, bonus, software/hardware purchase, training, licenses, stationeries etc.
Indirect HR costs include cost of payroll processing department called inter department cost, seat/space cost occupied by HR employees.

TRUE COSTS OF HR OPERATIONS PER EMPLOYEE
How to calculate operation cost per employee?

Direct costs of HR + Sum of Indirect costs of HR
HR Operation Cost = -------------------------------------
Total No of employees in the organization

Benefits of Human Resource Accounting
Human Resource Accounting is a process that helps organisations manage their human resources. There are many advantages to using HR accounting software, including:

- Assists in Determining ROI - HRA is an accounting system that recognises the expense made on an organisation's personnel. Once the investment is computed, an organisation can quickly calculate the exact ROI by determining the earnings made by the organisation. This will assist in monitoring how much they should spend on the personnel to attain optimum ROI.
- Inspires Employees - Staff members get motivated to enhance themselves once they familiarise their real value in the eyes of the personnel accounting system of the organisation. The amount invested in them will motivate them to boost the output symmetrical to the organisation's financial investment.
Boosts Process of Choice Making - HRA works as a centre to get information about the actual value of personnel operating in the organisation. This information assists the administration in making appropriate choices regarding organisational concerns.

Sign of Health of the organisation - HRA functions as an indication of the well-being of any kind of organisation. The quantity of investment made on the personnel of any organisation aids in gauging the amount of revenue that might be gained in the future.

Assist in Figuring Out the Requirement of Recruitment - HRA reports on the changes in obtaining returns as well as how much expense needs to be made on the manpower of the organisation. If the earnings are high demand for hiring brand-new staff members, and if no earnings are gained, no more employment occurs. These decisions are based on the information given by HRA.

Ascertains Unfavorable Results of the Programs - HRA system additionally assists in establishing the negative impacts of numerous programs running in the organisation.

Facilitates Organising and Executing HR Plans - HR policies of an organisation include plans regarding human resources functions such as promotion, training, demotion, transfer etc. Appropriate organisation and implementation of these plans are vital for every organisation's smooth functioning. This feature is controlled by the Human Resource Accounting system of an organisation.

LIMITATION / OBJECTIONS TO HRA

Though the application of Human Resource Accounting in the HR sector has shown a positive trend, there are objections to HRA and it needs further work.

- Most models are predictive
- Most models and evaluations are based on assumptions
- Value determined are not accurate
- Values or methods of determination are often subjective
- Conversion of non-monetary factors into commercial value is difficult
- In some methods, important factors like human behavior are ignored
- Difficult to replicate the models over a period of time
- One cannot predict employee tenure in the organization
- External factors like market conditions and related factors are ignored
- Sometimes application of HRA is complex

CONCLUSION

In past few years there is considerable work and focus in the sphere of Human Resource Accounting. HRA being an emerging area in accounting has greater potential for further research. The model devised so far, for the valuation of HRA, has been developed in USA keeping into consideration the environments prevailing there. There is a great need to review their applicability in India, a country which is substantially facing different environments. The special studies needed periodically to calculate cost of turnover, cost-benefit analysis of training and the cost of labor etc., must be a joint effort since many value judgments and assumptions must be made and understood by the prepares of data as well as the user. HRA has a promise; it has not yet met the test of usage. Much more research is necessary before HRA can possibly be useful to operating managers.

Traditionally, audit practices ignored the value of human resources when considering an organization and treated them as an expense. Staff members’ passion is fundamentally violated by such a fundamentally
skewed perspective on personnel. None of these methods has achieved global acceptance because they integrate oppositions, incompleteness, or incapacity. The double-entry concept and other typical accountancy ideas and methods haven't been able to become reality by using these strategies. Different methods are still needed to determine the actual value of the company's personnel, and also bookkeeping methods have been found to be ineffective for personnel audits.

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