

Human Resource Accounting- An Effective Strategy For Human Assets Control

** P.H. Hemamalini*

*** R. Anitha*

**** T.Devasenathipathi*

INTRODUCTION

Through the nineteenth and the middle of the twentieth century, the need for cost accounting had gained popularity among the industries as they made heavy investments in factories, natural resources and equipment. There was a global transition from manufacturing to service based economies. During 1960s, managerial accounting was basically cost accounting.

Due to the augmentation of service industry and expansion of financial institutions, managerial accounting began to mean more than just cost accounting. Subsequently, researchers felt the importance of behavioral accounting. During the same time, human resource accounting also began to emerge.

For example in an IT firm, the value of its physical assets is negligible when compared with the value of the knowledge and skills of its personnel. It was found to be similar in case of hospitals, academic institutions, consulting firms etc. The humans were recognized as the integral part of the total worth of an organization, as the success of the organization was contingent on the quality of their Human Resource- its knowledge, skills, competence, motivation and understanding of the organizational culture. As Organizations, particularly in USA are booming to be successful in the implementation of HRA approach, our country too can implement HRA successfully to generate monetary and non-monetary information about human beings in the organizations, on their managerial talents whose dearth is felt by business organizations.

Putting it in the capsule, **Human Resource Accounting** offers the following advantage:

- ✿ It helps in giving valuable information to the management for effective planning and managing human resources.
 - ✿ It helps in measurement of standard cost of recruiting, selecting, hiring and training people and organization can select a person with highest expected realizable value.
 - ✿ Human resource accounting can change the attitude of managers completely, thereby; they would try to maximize the expected value of human resources and effective use of human resources in the organization. It also provides necessary data to devise suitable promotion policy, congenial work environment and job satisfaction to the people.
- There are various benefits of adopting HRA. It guides the organization to take managerial decisions based on the availability and the necessity of human resources. When the human resources were quantified, it gives the investors and other client's an insight into the organization and also helps to eliminate the negative effects of redundant labor.

OBJECTIVES OF THE STUDY

The objective of this paper is to focus on the following aspects:

- ✿ To analyze the benefits of HRA in the selected organization.
- ✿ To determine whether HRA is a pedagogical instrument for analyzing and structuring the recruitment process.
- ✿ To identify the problems in HR accounting.
- ✿ To analyze the various methods of valuation of human assets.
- ✿ To identify the most suitable method adopted by the organizations to track HRA.

Though the concept of HRA had already emerged in India, it did not grow as it was not recognized by most of the companies. Only few public sector companies like Bharat Heavy Electronics Ltd. (BHEL) and Steel Authority of

**Lecturer - MBA, Info Institute of Technology, Coimbatore, Tamil Nadu. E-mail : hemamalini2007ster@gmail.com*

***Lecturer, Department of Management Studies, PPG Institute of Technology, Coimbatore, Tamil Nadu.*

E-mail : anithathiagu@gmail.com

**** Senior Lecturer, Department of Management Studies, PPG Institute of Technology, Coimbatore, Tamil Nadu.*

India Ltd. (SAIL) applied this technique in 1970s (Refer Table 1 & 2) .

The American Accounting Association's Committee has defined Human Resource Accounting as *"the process of identifying and measuring data about human resources and communicating this information to interested parties"*.¹ 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.

²According to the suggestions given by Brummet RL et al., a firm has to capitalize on its expenditure on HRM's functions namely recruitment, selection, orientation, training and development of people and treat them as assets for the purpose of HRA. The amounts so capitalized can be shown in the balance sheet as human assets as distinguished from physical assets.

According to the theory of accounting for HR propounded by **Flamholtz EG (1)** People are valuable resource of an enterprise and; **(2)** Information on the investment and value of human resource is useful for internal and external decision-making.³

APPLICATION OF HRA IN MANAGERIAL DECISION MAKING

⁴According to Likert (1971), HRA serves the following purposes in an organization:

- a.** Value information for making management decisions about acquiring, allocating, developing, and maintaining human resources in order to attain cost-effectiveness.
- b.** By adopting and implementing HRA in an organization, the following important information could be obtained:
 - ✿ Cost per employee.
 - ✿ Human capital investment ratio.
 - ✿ The amount of wealth created by each employee.
 - ✿ The profit created by each employee.
 - ✿ The ratio of salary paid to the total revenue generated.
 - ✿ Average salary of each employee.
 - ✿ Employee absenteeism rates.
 - ✿ Employee turnover rate and retention rate.
- c.** It allows management personnel to monitor effectively the use of human resources.
- d.** It provides a sound and effective basis of human asset control, that is, whether the asset is appreciated, depleted or conserved.
- e.** It helps in the development of management principles by classifying the financial consequences of various practices.

The success of the organization was contingent on the quality of their Human Resource- its knowledge, skills, competence, motivation and understanding of the organizational culture.

HUMAN RESOURCE ACCOUNTING IN INDIA

In India, high importance to human resource management has been accorded only recently; earlier it was considered as fiddle. In such a situation, companies have accorded higher importance to more pressing needs of HRM rather than going for human resource accounting. Many organizations do not realize the importance of human resource accounting. They hold a view that human resources are precious to themselves.

⁵ Infosys technologies for the first time, valued its human resource in 1995-96 which was ₹ 184 crore, much more than

¹ American Accounting Association, A statement of Basic Accounting Theory, Evanston, IL: AAA, Revised Ed., 1970, p. 35.

² Brummet RL, Flamholtz E, Pyle W (1968), "Human Resource Accounting: A Challenge for Accountants", Accounting Review 43, 217-224.

³ Flamholtz EG (1971), Human Resource Accounting: Advances in concepts, Methods and Applications, Kluwer Academic Publishers, Boston.

⁴ Likert R (1973), "Human Resource Accounting: Building and Assessing Productive Organizations", Personnel 50, 8-24.

⁵ www.icmrindia.org

its physical assets of ₹ 84 crore and profit of ₹ 93 crore. Similarly, Balrampur chini mills valued its human resources at ₹ 10.43 crore while BPL limited valued its human resources at ₹ 125.44 crore. Value of human resources in knowledge based sector like information technology, consultancy and electronic media is quite commendable.

HRA gained its popularity after Infosys started valuing its employees in the mid-1990s. By 2002, HR accounting had been introduced by leading software companies like Satyam Computers and DSQ Software, as well as leading manufacturing firms like Reliance Industries were quick to respond on the above developments by stating that more and more organizations had started to realize the importance of skilled workforce. It was also felt that to sustain in the highly competitive markets, companies are required to continuously improve the level of performance of their workforce.

METHODS OF VALUATION OF HUMAN ASSETS

In the past years, many young people demand honest work in well-respected enterprises to maintain their status in the society, but in the present scenario, they are attracted by high salaries. This new trend puts pressure on enterprises and organizations that want to attract these young employees. Since HRA is an important external reporting tool which allows the enterprise to document its investment in its employees, employers focus on their employees more than they did in the past and this requires better HRA. So, it is necessary to use some method of quantifying the worth of the knowledge, motivation, skills and contribution of the human element as well as that of the organizational processes like recruitment, selection, training etc to estimate and project the worth of the human capital.

There are number of methods suggested for the valuation of human assets. Many of these methods are based on the valuation of physical and financial assets, while others take into account human consideration. Assigning monetary values to different dimensions of HR costs, investments and the worth of employees is the biggest challenge in HRA. The two main approaches employed for this are:

1. The Cost Approach which involves methods based on the costs incurred by the company, with regard to an employee. Major methods of cost approach are mentioned below.

✱ **Historical Cost:**⁶ Historical Cost is based on actual cost incurred on human resources. It is of two types acquisition cost and learning cost. Acquisition cost is the expense incurred on recruitment, selection and placement. Learning cost involves expenses incurred on training and development. This method is very simple in its application but it does not reflect the true value of human assets.

✱ **Replacement Cost :**⁷ As against historical cost method, which takes into account the actual cost incurred on employees, replacement cost takes into account the notional cost that may be required to acquire a new employee to replace the present one. In calculating the replacement cost, different types of expenses are taken into account which may be in the form of acquisition and cost. Replacement cost is a much better indicator of value of human , though it may present certain operational problems.

✱ **Standard Cost :** Many companies use standard cost instead of using historical or replacement cost, for the valuation of human assets just as they use for physical and financial assets. For using standard cost, employees of an organization are categorized into different groups based on their hierarchical positions. Standard cost is simple but does not take into account differences in employees put in the same group.

✱ **Opportunity Cost :**⁸ It is cost of an alternative that must be forgone in order to pursue a certain action. The benefits one could have received by taking an alternative action. In other words, it is the calculation of what would have been the returns if the money spent on HR was spent on something else. Hence, its use is restricted to internal reporting and not external reporting. This method is not objective as desired.

2. The economic value approach, includes methods based on the economic value of the human resources and their contribution to the company's gains. This approach looks at human resources as assets and tries to identify the stream

⁶ Woodruff RC (1970), "Human Resources Accounting", Canadian Chartered Accountant 97, 156-161.

⁷ Cascio WF (1999), Costing Human Resources: The Financial Impact of Behavior IN Organization, South Western College Publishing, Ohio.

⁸ www.investopedia.com/terms/opportunitycost.asp

of benefits flowing from the asset.

The economic value of human resources is the present worth of the services that are likely to render in future. This may be the value of individuals, groups or the total human organization. This method for calculating the economic value of individuals may be classified into monetary and non-monetary methods.

MONETARY MEASURES FOR ASSESSING INDIVIDUAL VALUE

a) ³ **Flamholtz's Model Of Determinants Of Individual Value To Formal Organizations:** According to Flamholtz, the **value of an individual** is the present worth of the services that he is likely to render to the organization in future.

As an individual moves from one position to another, at the same level or at different levels, the profile of the services provided by them is likely to change. The present cumulative value of all the possible services that may be rendered by him during his/her association with the organization is the value of the individual.

b) ⁹ **Flamholtz's Stochastic Rewards Valuation Model:** The movement or progress of people through organizational "states" or roles is called a stochastic process. The Stochastic Rewards Model is a direct way of measuring a person's expected conditional value and expected realizable value. It is based on the assumption that an individual generates value as he occupies and moves along organizational roles, and renders service to the organization. It presupposes that a person will move from one state in the organization, to another, during a specified period of time. Movement of people is also considered as a condition for calculation of human assets.

c) ¹⁰ **The Lev and Schwartz Model :** It is a basic model employed by Indian Organizations. According to this model, the value of human capital embodied in a person who is 'y' years old, is the present value of his/her future earnings from employment and can be calculated by using the following formula:

$$E(V_y) = \sum_{T=Y} P_y(t+1) \sum_T \frac{I(t)}{(1+r)^{t-y}}$$

Where $E(V_y)$ = Expected value of a 'y' year old person's human capital.

T = the person's retirement age.

$P_y(t)$ = Probability of the person leaving the organization.

$I(t)$ = Expected earnings of the person in period I .

r = Discount rate

The basic theme of Lev and Schwartz Model is to compute the present value of the future direct and indirect payments to their employees as a measure of their human resource value.

The common assumptions set by the Indian Companies are the pattern of employee compensation, normal career growth and weight age for efficiency.

For instance, Infosys' employed this model for calculating the value of HRA based on the present value of the employees' future earnings with the following assumptions:

✿ An employee's salary package is inclusive of all direct and indirect benefits earned in India and in a foreign nation.

✿ The additional earnings on the basis of age and group were also taken into account.

In 1995-96, Infosys calculated its human assets, by dividing 1,172 employees into five groups, based on their average age along with average compensation for each group. By using an average rate of increment, Infosys calculated the compensation of individual employee during their retirement period.

"Real assets will not appreciate much as businesses get commoditized. Innovation and intellectual power are going to be the key to the future." - Mohandas Pai, Chief Financial Officer, Infosys.

⁹ Flamholtz EG et al. (1988), "Developing Human Resource Accounting as a Decision Support System", (Accounting Horizons 2, 1-9).

¹⁰ Lev B, Schwartz A (1971), "On the use of the Economic Concept of Human Capital in Financial Statements", Accounting Review 46, 103-112.

Table 1: Lev and Schwartz Model

	SAIL		BHEL		MMTC	
Years	Number	Value	Number	Value	Number	Value
1984-85	74464	1216	206414	9581	3638	96
1985-86	75915	1358	206198	9589	3760	121
1986-87	74918	1588	203292	10828	3830	140
1987-88	74813	1827	197296	12013	3862	158
1988-89	75116	2183	194872	12725	3825	174
1989-90	74436	2673	193223	15790	3825	196

Source: Adapted from Prabhakar Rao (1993)

Table 2: NTPC's Human Resource Value, '94-95 (discount factor of 0.12)

Category	No of Employees	Per Capita (₹ Lakhs)	Total Value (₹ Crores)
Executives	6841	17.76	1215
Supervisors	3010	15.11	455
Workmen	12445	13.71	1705
Total	22296	15.14	3375

Source: Annual Report

d) Hekimian and Jones Competitive Bidding Model : In this method, an internal market for labor is developed and the value of the employees is determined by the managers. Managers bid against each other for human resources already available within the organization. The highest bidder 'wins' the resource.

NON- MONETARY METHODS FOR DETERMINING VALUE

The non- monetary methods for assessing the economic value of human resources also measure the Human Resource- but not in dollar or money terms -rather, they rely on various indices or ratings and rankings. The non-monetary methods may refer to a simple inventory of skills and capabilities of people within an organization or to the application of some behavioral measurement technique to assess the benefits gained from the human resource of an organization.

PROBLEMS IN HUMAN RESOURCE ACCOUNTING

✳ There are certain operational problems in human resource accounting because it attempts to measure intangible assets. Therefore, subjective factors may play a crucial role. Hence, the major operational problems involved in human resource accounting are of the following types.

✳ There is no well set-standard accounting practice for measuring the value of hum resources. In the case of financial accounting, there are specified standards which every organization follows. However, in the case of human resource accounting, there are no such standards. Therefore, various organizations that adopt human asset valuation use their own models. With the result, values of human assets of two organizations may not be comparable.

✳ The valuation of human assets is based on the assumption that the employees may remain with the organization for certain specified period. However, this assumption may not hold true in today's context because of increased human resource mobility.

✳ There is a possibility that human resource accounting may lead to the Dehumanization in the organization if the results of the valuation are not utilized Properly.

✳ There is also a possibility that trade unions may oppose the use of human resource accounting. They may want parity of wages/salaries and value of employees.

✳ However, many of the problems are of operational nature or of attitudinal nature. These may be overcome by developing suitable organizational climate and culture.

CONCLUSION

The concept of HRA nowadays is tuned to the requirements of the industries that focus on knowledge economy. HRA has proved to be mandatory for many Industrial sectors due to its attrition rate and higher employment cost. The company can identify that the investment in human capital encourages management to collect data on human resources which in turn help them to measure the behavior and attitude that affects performance. Thus, HRA is an effective strategy for controlling the cost in human assets.

Based on their requirements, different organizations follow different models for calculating HRA and each model has its own merits and demerits.

* In Flamholtz model, ascertaining the probability of employees' turnover becomes difficult, since individuals are not owned by the organization and are free to leave. In Flamholtz's Stochastic Rewards Valuation Model, the main drawback is the extent of information required to make the necessary estimates of the values of the service states, the expected tenure and the probability that the individual will occupy the state for the specified period of time. In Hekimians and Jones competitive model, the managers rely on their own judgment. Therefore, there tends to be a personal bias as there is no criteria on which the bids are based.

* Out of available models, the Lev and Schwartz model seems to be more flexible and paves a way to assess human capital, as most of the Indian Companies adopt this model in accordance with their practical requirements by making necessary alterations. For instance, different companies use different discount rates for ascertaining the present value of the future cash flows. As pointed out by Mr. R.Prabhakar Rao (1993), the Lev and Schwartz model is basically oriented towards measuring changes in the employees' value rather than employer's gain from the employees. Unless the employees' payments are directly linked to the employee's productivity or the company performance, the changes in the value of employees will not reflect in the changes in the employees' contribution. The attitude, morale and the value of the Human Resource will increase even if the organization continuously incurs loss.

BIBLIOGRAPHY

1. American Accounting Association, A statement of Basic Accounting Theory, Evanston, IL: AAA, Revised Ed., 1970, p. 35.
2. Brummet RL, Flamholtz E, Pyle W (1968), "Human Resource Accounting: A Challenge for Accountants", Accounting Review 43, 217-224
3. Flamholtz EG (1971), Human Resource Accounting: Advances in concepts, Methods and Applications, Kluwer Academic Publishers, Boston.
4. Likert R (1973), "Human Resource Accounting: Building and Assessing Productive Organizations", Personnel 50, 8-24.
5. www.icmrindia.org
6. Woodruff RC (1970), "Human Resources Accounting", Canadian Chartered Accountant 97, 156-161.
7. Cascio WF (1999), Costing Human Resources: The Financial Impact of Behavior IN Organization, South Western College Publishing, Ohio.
8. www.investopedia.com/terms/opportunitycost.asp
9. Flamholtz EG et al. (1988), "Developing Human Resource Accounting as a Decision Support System", Accounting Horizons 2, 1-9.
10. Lev B, Schwartz A (1971), "On the use of the Economic Concept of Human Capital in Financial Statements", Accounting Review 46, 103-112.