International Journal of Business Economics and Management Research
Vol. 10, Issue 2, February 2019 Impact Factor: 6.857 ISSN: (2229-4848)
www.skirec.org Email Id: skirec.org@gmail.com

APPROACHES TO HUMAN RESOURCE ACCOUNTING: A CONCEPTUAL FRAMEWORK

Babu Bakhsh Mansuri

Women's College, A.M.U. Aligarh – 202002,India

ABSTRACT

Human resource accounting is a fruitful attempt to identify and bring to surface the investment exhausted in human resources. The reporting of human resources, it appears, is being done on a selective basis at the option of companies in India. This has resulted in only a few companies coming forward to give importance to the valuation and reporting of human resources. Even among the reporting companies, no uniform model is followed for valuation of human assets of their companies. Hence, considering the great value attached to human resources, necessary and adequate provisions shall be made in the Companies Act, 1956 in order to make it obligatory for the companies to evaluate and report the human resources. It is incumbent on the part of the Institute of Chartered Accountants of India (ICAI) and the Company Law Board (CLB) to frame the necessary guidelines for the valuation and reporting of human resource. The task of finding out an appropriate method of valuation of human resources to be uniformly followed by all companies in India may be entrusted to an expert committee which may be formed for that purpose. This may be expected to enable more and more companies to come forward to account and report the value of human resource in their financial statements.

KEYWORDS*; Accounting ,Human resource, reporting, approach, framework.*

INTRODUCTION

An enterprise incorporates mainly two distinct and different resources such as (a) a set of non-living things viz. plant, machinery, raw material, spare parts etc and (b) a group of living things especially human rights viz. workers, supervisors, managers, executives, directors and chairman etc. In the absence of the latter, the former is hardy useful. Though living beings have a substantial impact on an enterprise's conduct, survival, earnings and growth, no effort has been made under conventional accounting system to identify and record transactions in this respect. Conventional accounting extends its sphere to only non-living things and their relevant transactions.

Gradually, in the light of evolved wisdom it was considered essential to make an endeavour to incorporate the effect of human resources in the entire business functions of a firm. Therefore, human resource accounting is a fruitful attempt to identify and bring to surface the investment exhausted in human resources.

Human Resource Accounting has been defined by different people in different ways. Few definitions of Human Resource Accounting are given below:

According to Stephen Knauf "Human resource accounting is the best measurement and qualification of human organizational inputs such a recruiting, training, experience and communication".

According to Flamholtz "Human resource accounting is accounting for people as an organization resource. It involves measuring the costs incurred by business firms and other organizations to recruit, select, hire, train and develop human assets. It also includes measuring the economic value of people to organizations".

The above definition necessitates the following:

- Identify the investment made in human resources (expenditure or recruitment, selections, training and development).
- Measure the value of human resources through capitalization process.
- Amortize the investment like other related assets.
- Reveal the investment to the needy parties for information.

Thus, Human resource accounting is a process of measurement of the value of the human resource of a firm and its incorporation into books of accounts. It capitalizes the measured value in a significant manner and presents the information to parties concerned.

NEED

With increasing knowledge-intensity, growth in employment must be sought through improved productivity in firms with a solid capacity to innovate and used technology effectively. According to Theodore Schultz, the most critical attribute of human capital arises from the fact that the person and his human capital are inseparable. Human resources are considered to be most precious. It is a university accept fact that the success of any organization especially in the modern world depends entirely on the quality and character of the persons working in the organization. However, howsoever much an organization may own physical resources with latest technology, it would find it difficult to manage its affairs, if it does not have right people to manage and conduct its affairs. However, Human resource accounting is receiving much attention in present economic scenario that there is need of human resource information in order to evaluate the management of human resources. The contribution of human "capital" in productivity goes largely reflected in statements of Companies income and in their balance-sheets. The reason is simple, no one knows how to define and evaluate it.

VALUATION OF HUMAN RESOURCES

A number of people have contributed to the development of models for the purpose of evaluating the human resource. Important among them are Shultz (1960), William C. Pyle (1967), Flam Holtz (1971), Morese (1973), Jaggi& Lev (1974) and Kenneth Sindare (1978).

Basically, the following approaches are available for the valuation of Human Resources of an organisation:

- The Historical Cost Approach
- The Replacement Cost Approach
- The Opportunity Cost Approach

Howsoever an organization may own physical resources with latest technology, it would find it difficult to manage its affairs if it does not have the right people to manage and conduct its affairs.

THE HISTORICAL COST APPROACH

This approach was developed by Brummet, Flamholtz and Pyle. According to this approach, the *actual costs* that are incurred in the recruitment, selection, hiring, training, placing and developing the employees of an organization are capitalized and amortized over the expected useful life of human resource.

If the human asset is liquidated prematurely, *losses* are recorded and if the asset has a longer life than estimated *revisions* are made in the amortization schedule.

The value of human resources, according to this approach, comprises the following :

$$\mathbf{HRV = AC - L + R}$$

Where

HRV = Human Resource Value

L = Loss on account of premature liquidation of human resources

R = Revision consequent on longer than anticipated life of human resource.

Under this approach, human resource is treated in the same manner as cost of fixed assets. The same principles of capitalization and amortization are applied. This approach is based on the traditional accounting techniques of matching costs with revenues. The management faces no difficulty in interpreting the meaning and the information supplied by the cost-based systems.

However, this approach creates considerable difficulties in the estimation of the period over which the human resource will provide service to the organisation. Consequently, it creates problems in the amortization of such expenses on human resources. Moreover, it would be wrong to amortize (diminish) the value of human resource. This is because the value of human resources increases over a period of time.

THE REPLACEMENT COST APPROACH

According to this approach, which was developed by RensisLikert and Eric G. Flamholtz, human resources are valued at their present cost. Under this approach, human resources of an organisation are to be valued on the basis of the estimated cost of replacing the existing human resources with others of equivalent talents and experience.

The major advantage of this approach is that it incorporates the current values of the firm's human resource which could make possible realistic presentation of financial statements. In the process, it takes into account the fluctuations of the job markets and general rise in price level. However, it will not be possible to ascertain correct replacement cost of existing human resources as there can be no competitive replacement for them. Hence, this approach defies the objective way of determining the value of human resource.

HRV = Current Replacement Cost

THE OPPORTUNITY COST APPROACH

The approach, as suggested by Hekimian and Jones, determines the value of human resource on the basis of its alternative use. According to this approach, the opportunity cost of an employee or a group of employees who are scarce for an organisation or a department is determined in terms of the competitive bidding price. This means that whichever department bids a higher price, the human resource will accordingly value the human resource.

RRV = BPSE

Where

BPSE = Higher Competitive Bid Price for Scarce employees.

The competitive bid price is calculated using the following steps :

- Calculate value of Physical Capital employed
- Calculate total value of Capital employed:

(Expected Profit x 100) ÷ ROI

- Calculate the value of Human Resources : (b-a)
- Calculate the bid price : c x ROI

The opportunity cost is that bid price which is the highest. An immediate advantage of this approach is that it provides for more optimal allocation of personnel and thereby sets the quantitative base for planning, inducting and developing the human assets of the firm. This approach, however, adopts a discriminating attitude since it takes into account only scarce human resources. This will have the effect of lowering the morale of other (non-scarce) employees in an organisation.

THE PRESENT VALUE APPROACH

Under this approach, the value of human resources of an organisation is determined on the basis of its present value. The following valuation models are available for the determination of present value of human resource:

- The Lev and Schwartz Model
- The Herman Model
- The Flamholtz Model
- The Jaggi and Lev Model
- The Sadan and Auerbach Model

THE LEV AND SCHWARTZ MODEL

This model was proposed by Baruch Lev and Aba Schwartz. According to this approach, the value of human resources is equal to the total of present value of the expected annual earnings upto the age of retirement.

$$\textbf{HRV} = \Sigma \textbf{PY of AEs}$$

Where

AEs = Annual Earnings

The following steps are involved in the computation of human capital of an organization:

- Classification of employees according to their age and skill.
- Determination of average earnings for all groups of employees
- Computation of annual earnings of employees
- Calculation of discounted annual earnings by an appropriate discount rate
- Computation of total of the discounted annual earnings

The chief advantage of this approach is that it takes into consideration the Present Value of future earnings of an employee and obviously takes into account the time-adjusted value of contribution of employees in an organization.

The approach, however, ignores the possibility of an individual's death and his changing role in an organization. The model also ignores other considerations such as seniority, bargaining capacity, skill and experience, which may result in payment of higher or lower wages to employees.

THE HERMAN MODEL

Under this model, the value of a person in an organisation is equal to the sum of Present Value of future stream of wages or salaries as adjusted for the ratio of efficiency of the human resource operating in a firm over a period of five years.

HRV = ΣPV of AEs x Efficiency ratio

Efficiency ratio refers to the weighted average of the ratio of the return on investment of the given firm to all the firms in the economy for a specified period, usually the current year and the preceding four years. The weights are assigned in a reversed order, highest to the current year i.e. 5 and 1 to the preceding fourth year. The efficiency ratio is calculated as follows:

ER = $(RRF_0 \div RRE_0) \times 5 + (RRF_1 \div RRE_1) \times 4 + (RRF_2 \div RRE_2) \times 3 \div (RRF_3 \div RRE_3) \times 2\ (RRF_4 \div RRE_4) \times 1$

where

ER = Efficiency Ratio

RRF_0 = Rate of return of firm for the current year

RRE_0 = Rate of return of all firms in the economy for the current year

RRF_1 = Rate of return of firm for the preceding 1st year

RRE_1 = Rate of return of all firms in the economy for the preceding 1st year and similarly for the 2nd 3rd and 4th preceding years.

The use of Efficiency Ratio (ER) has been criticized as being subjective. This is because of the arbitrary way of using weights in computing the ratio.

THE FLAMHOLTZ MODEL

The model, as propounded by Eric Flamholtz, recognizes the total value that would be generated by an individual by assuming different roles in an organization over a given time period. Under this method, the value of human resource in an organization is equal to the sum of expected realizable value of Present Value of future stream of earnings of various positions of an individual in an organization.

HRV = Σ PV of Ri (P)

where

Ri = Expected condition value of an employee at various capacities at various time periods.

P = Probability of remaining in the organization.

The major advantage of this model is that it takes into account the probability of a person's career movement and of his leaving the organisation prior to his retirement or death. However, it would be very difficult to obtain the data pertaining to the incomes of employees for various positions during various time periods.

THE JAGGI AND LEV MODEL

According to this model, the valuation of the human resource is done on a group basis so that the problem of predicting the expected tenure or promotion chances of employees on an individual basis is overcome. Use of this model is based on the assumption that it is easier to ascertain the data regarding the positions and promotions of people on a group basis. The value of human capital is determined as follows :

$$\mathbf{HRV = \Sigma PV of\ AES_G}$$

where

AES_G = Estimated annual earnings of a group.

SADAN AND AUERBACH MODEL (1974)

According to this model, the value of human resource of a firm constitutes the PV of future wages payable. Future stream of wages payable is ascertained using stochastic model of employment movement analysis. The value of human asset is determined as under:

$$\mathbf{HRV = \Sigma PV\ of\ WC}$$

Where

WC = Wage cost payable in future

The employee movement analysis visualized under this approach is more flexible with the facility to incorporate suitable choice of variables being the chief advantage of this model. However, where estimation of future wages payable to employees is made, the relevant likely future contribution from them must also be estimated.

THE MORSE MODEL

The model is similar to the one advocated by Sadan and Auerbach. According to this approach, the value of human assets of an organization comprises the total PV of likely future wages payable based on the possible employee movement to different states, age category and wage classification.

The main limitation of this model is the difficulty in making accurate estimation of the future wages payable which obviously depends upon the fairness of transition probability matrix assumed in the context of likely future situation.

THE LIKERT MODEL

Under this model, the value of human capital in an organisation is estimated on the basis of behaviour of a set of causal variables reflecting the management system as adopted by the organisation. The likely behaviour of employees is determined with the help of psychological tests. In this manner, the appreciation or the depreciation of the human capital is also .determined. The value of human resource is ascertained as follows:

HRV = HOC (-) HOC

Where

HOC = Human Organization Condition

This model reveals as to how different management strategies affect the organization's health and performance. However, it is difficult to establish valid relationships between the variables.

THE KOLAY MODEL

The approach as suggested by M.K. Kolay seeks to determine the value of human resource on two planes — for internal value as well as for external value. Internal value is determined by considering the controllable portion of human resource value and external value by taking into account the uncontrollable external factors. According to M.K. Kolay, the value of human assets in an organization comprises the following:

OHRV = Internal HRV + External HRV

Where

OHRV = Overall HRV

The advantage claimed by this model is that it takes into consideration separately the value created / added both by the internal and external factors. However, the model suffers from deficiency in making an estimation of impact of external factors on the profitability performance of human resource ultimately resulting in the organizational efficiency.

OTHER APPROACHES

In addition to the above-mentioned methods of valuation of human resource, the following approaches are also adopted:

THE NET BENEFIT MODEL

The model, as propounded by Morse in the year 1973, was based on the present value of net benefit derived by an organisation from its employees under this approach,

HRV = PV of (GS – WC)

Where

GS = Gross value of services rendered by employees

WC = Value of future payments to employees

THE CERTAINTY EQUIVALENT NET BENEFIT MODEL

This approach was suggested by PekinOgan in the year 1976. According to this approach, the value of human resource is computed as follows:

$$\textbf{HRV = PV of NBE x CF}$$

Where

NBE = Net Benefit from Employees

CF = Certainty Factor

THE AGGREGATE PAYMENT APPROACH

According to this approach, which was suggested by Prof. S.K. Chakraborty in the year 1976, the value of human resources in an organization is determined as follows :

$$\textbf{HRV = PV of } (AS_G \times AT_G)$$

Where

ASG = Average Salary of the Group

ATG = Average Tenure of Employees in the Group

The average salary of the group is determined on the basis of the salary wage structure prevalent in the organization. The average tenure of employees in the organization is determined on the basis of past experience. For the purpose of valuation of human resource, the employees of an organization are divided into two groups viz., managerial and non-managerial. According to Prof. S.K. Chakraborty, the amount spent on the recruitment, selection, development and training of employees should be treated as deferred revenue expenditure which shall be written off over the expected average tenure of the employees in the organisation and the balance shown in the Balance Sheet. Where there is premature exit of an employee on account of death, retirement etc., the balance of the deferred revenue expenditure distributable to that person shall be written off against the income of the year of exit itself.

THE COST-BENEFIT APPROACH

The approach as evolved by Messrs. Myers and Flowers in the year 1974, is based on the assumption that employees' attitude prominently determines their productivity behaviour and this is reflected in value being attributed to employees. To determine the likely benefits (value) of employees, employee attitude index is to be calculated.

According to this approach, the value of human resource of an organization comprises the following:

$$\textbf{HRV = (EAI x WC) – WC}$$

where

EAI = Employee Attitude Index

WC = Wage Costs

The biggest drawback of this approach is the difficulty in the measurement of employee attitude and the construction of an attitude index. Employee attitude being a qualitative aspect defines accurate measurement. Moreover, this may not reflect contribution of employees unless validated.

HUMAN RESOURCES RECORDING AND DISCLOSURE IN FINANCIAL STATEMENTS

Although the various models explained above give an account of valuation of human resource. These models do not deal mode of receiving and reporting of accounting information relating to human resource in the books of accounts or financial statements of a company. At present companies in India are expected to furnish information relating to their employees as per section 217 (2A) of the Indian Companies Act, 1956 read with the companies (particulars of employees), Amendment Rules 1988 forming part of the Director's Report.

Very few companies in India, particularly in the Public Sector are at present reporting human assets valuations. Most significant among them are the Bharat Heavy Electricals Ltd. (BHEL), The Minerals and Metals Trading Corporation of India Ltd. (MMTC), Electronics India Ltd., Engineers India Ltd. and the Cement Corporation of India Ltd. (CCI) etc. The BHEL has been valuing and reporting human resources for the past 20 years. The company adopts the Lev and Schwartz Model for the valuation of human resources. The reporting of human resources, it appears is being done on a selective bases of the option of companies in India. This has resulted in only a few companies coming forward to give importance to the valuation and reporting of human resources. Even among the reporting companies, no uniform model is followed for valuation of human Assets of the companies. It has been further noticed that section 227 (2A) of the India companies Act, 1956.

The reporting of human resources, it appears, is being done on a selective basis at the option of companies in India. This has resulted in only a few companies coming forward to give importance to the valuation and reporting of human resources. Even among the reporting companies, no uniform model is followed for valuation of human assets of their companies. It has been further noticed that section 217 (2A) of the Indian Companies Act, 1956 read with Particulars of Employees (Amendment Rules) 1988, requires the companies to furnish details pertaining to their employees' emoluments exceeding Rs. 3,00,000 per annum forming part of the director's report. But this is no valuation of human resources because only the details of gross emoluments drawn by the employees are furnished. Moreover, nothing has been specified about the method of valuation and reporting in financial statements.

CONCLUSION

Hence, considering the great value attached to human resources, necessary and adequate provisions shall be made in the Companies Act, 1956 in order to make it obligatory for the companies to evaluate and report the human resources. It is incumbent on the part of the Institute of Chartered Accountants of India (ICAI) and the Company Law Board (CLB) to frame the necessary guidelines for the valuation and reporting of human resource. The task of finding out an appropriate method of valuation of human resources to be uniformly followed by all companies in India may be entrusted to an expert committee which may be formed for that purpose. This may be expected to enable more and more companies to come forward to account and report the value of human resource in their financial statements.

A proper reporting of human resource in the financial statements of a company will go a long way in giving a fair and complete view of the accounting information, infuse confidence in the people working in the organisation, boost their morale and help the management in fulfilling their social responsibility towards their own employees. This will ultimately benefit the nation.

REFERENCES

- Report of AAA Committee on *Accounting for Human Resource,* Accounting Review, Supplement to Vol. 49, 1974, p. 115.
- Anthony and Welsch, *Management Accounting,* Irwin, 1977, pp. 405-406.
- Muscove, S.A. *A Further Investigation into Human Resource Accounting,* Journal of Accountancy, 1983, p. 92.
- Porwal, L.S. *Accounting Theory,* Tata McGraw - Hill Company, New Delhi, 1994, pp. 346-349.
- Kolay, M.K. *Measuring the Value of Organisational Human Resource,* The Chartered Accountant, February 1996, pp. 16-29.
- Brummet, R.L. E.G. Flamholtz and W.C. Pyle, *Human Resource Measurement- A Challenge for Accountants,* Accounting Review, April, 1968, pp. 217-230.
- Friedman, A., and B. Lev. *A Surrogate Measure for the Finn's Investments in Human Resources,* Journal of Accounting Research, August, 1974, pp. 235-250
- Jaggi, B. and Lev, H.S. *Toward a Model for Human Resource Valuation,* The Accounting Review, April 1974, pp. 321-329.

- Morse, WJ. *Estimating the Human Capital Associated with an Organisation,* Accounting and Business Research, Winter, pp. 48-56,1975.
- Myers, M.S. and V.S. Flowers, A *Framework for Measuring Human Assets,* California Management Review, Summer, Vol. XVI, No. 4, pp. 5-16,1974.
- Annual Reports of BHEL Ltd. and CCI Ltd.
- Schultz, Theodore, *Human Resources,* Cambridge, Mass.: National Bureau of Economic Research, 1972, pp. 8-9.
- Riel Miller and Gregory Wurzburg, *Investing in Human Capital,* The OECD Observer, No. 193, April /May 1995, pp. 16-17.