

HUMAN RESOURCES ACCOUNTING: AN ACCOUNTING TOOL FOR EFFECTIVE MANAGEMENT OF ORGANIZATIONAL RESOURCES

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Abstract: The study explores and examines the scope of Human Resource Accounting towards effective management of Human Resources in the organization. As a phenomenon HRA attempts to value human resources in the organization, while it's implemented in several global organizations some organizations have found the process beneficial and on other hand some have given away the concept of HRA in their accounting procedures. This research attempts to find a suitable arrangement to benefit organizations in using this methodology.

Keywords: Human Resource Accounting, Human Resources.

1. INTRODUCTION

Human Resource Accounting (HRA) is an approach for evaluating human resources that represents the current status of human resources valuation concept; which currently being developed mostly in western countries. By helping management identify and evaluate the human resources attributes that can make the firm more profitable, human resources planning can also make a significant contribution to a business.

In recent years more and more organizations are beginning to extend their information resources by moving towards systematic research which in essence, seeks new information about the functioning of the whole system in relation to its changing environment. One example is the information gathered about the value of its human resources as an organization moves through a period of technological and personal changes.

From an accounting point of view, all assets are economic values that should be charged to the operations of the periods they benefit. This principle applied to the entire economic life of the assets involved. For that reason advocates of human resource accounting believe that, the often significant costs incurred in recruiting, hiring, training and developing human resources for the benefit of more than one period should, like any other asset of material value be identified and charged to the periods in which their benefit is felt. The upshot of all this is that such information can be of vital importance to management for decision making and measuring the return on their present and future investment in human resources. More effective planning and controlling efforts are then assured, particularly in labour intensive industries, in the provision of professional services and in the relatively new but expensive specialties, such as system analysis and programming.

2. HISTORY OF HRA

Since the 1960's, research, in this subject has primarily developed based on the human resources school of personnel management. Flamholtz has specified five stages in the development of HRA, which are:

- a. From 1960 - 1966, this was marked by the derivation of HRA concepts from the economic theory of human capital, then the new human resources school and organizational psychologists' focus on leadership effectiveness.
- b. Between 1966-1971, this was identified as a period of basic academic research, measurement of models and identification of potential user as well as some experimental applications in actual organizations.
- c. From 1971-1976, this was a period of growing interest in HRA, exhibited by both researchers and organizations. The applications of HRA were mostly attempted by small entrepreneurial organizations. Assessments were also made on the potential impact of HRA information to line manager and investor decisions.
- d. Between 1976-1980, this was identified as a period of declining interest among accounting researchers and business organizations. Flamholtz has attributed that interest in HRA has waned, possibly because the public accounting standards- were too stringent to allow the direct reporting of human asset value in financial statements, the preoccupation of business with other concerns and the lack of organizations preparation to sponsor HRA applications research and expenditure.
- e. Since 1980 and up to present, there has been a period of growing interest in HRA. This has been shown by demonstration of new research studies and some attempts by major organizations to apply HRA. In United States, interest has been accelerated by a focus on employee productivity. Some of Japanese Corporate has shown interest in applying a new approach to their human resource (as lifetime assets rather than expenses). In Western economies itself, there was a change of primarily industrial manufacturing to high technology service economies for which human capital is a critical source.

3. Approaches to HRA & It's Challenges in Indian Industries

There have been various approaches to the measurement of HRA in organizations and each organization would opt to select the convenient method to best suit their business function. In general some of the measurement approaches includes:

A. Cost based measurement

- a. Historical cost approach
- b. Replacement cost approach
- c. Opportunity cost approach

B. Value based Measurement

- a. Capitalization of salary approach
- b. Unpurchased Good will approach
- c. Economic Value approach

C. Non-monetary Measurement

While organizations have to determine the suitable approach, there arises the difficulty to assess the right method in the accounting process. Erstwhile the practices in Human Resource Accounting has been of great importance to organizations, in recent days HRA is a technical function which desires an extra step towards managing the same. In India several companies have been adhering to HRA practices, however they find difficult to measure the impact from an employee's future increase in productivity and think upon as how to determine the economic contribution to the firm from expenditure on the firm's human resources. Other challenges faced by Indian organizations include:

- a. Knowledge of HRA
- b. Data availability
- c. Organizational forces
- d. Application of HRA in business decisions

- e. Lack of technical skills & ability
- f. Other existing accounting practices

4. AN OVERVIEW OF SELECTED HRA MODELS

Cost Models:

The following HRA models based upon costs involve in computation of cost of human resources to the organisation:

1. Historical or Acquisition Cost Model:

This model of accounting of human resources was first initiated by Rinses Likert at R.G.Bary Corporation in Ohio Columbia (USA) in 1967. This model involves capitalisation of the actual cost incurred on recruiting, selecting, hiring, training and developing the human resources of the organisation. The sum of such costs for all the employees of the organisation represents the value of the human resources of the organisation. This value is amortised over the expected length of service of individual employees. The unexpired cost is considered to be the investment in human resources. If an employee leaves the organisation due to resignation, death, dismissal etc., whole of the amount not written off is charged to the current revenue. The total cost of the investment includes those quantifiable expenditures associated with recruitment, selection, hiring, training, placement, familiarisation and development. This method simply capitalises human resource costs and does not seek to value people.

2. Replacement Cost Model:

This method of valuation of human resources was developed by Eric G. Flamholtz on the basis of concept of replacement cost suggested by Rensis Likert. Replacement cost refers to the sacrifice that would have to be incurred to replace resources presently owned or employed. This method is based on current value or replacement cost. Under this system, an organisation values an employee at the estimated cost of replacement with a new employee of equivalent ability. The application of such a method, however, is made difficult by the problems of defining and measuring replacement costs. In the contest of human resources, it refers to the cost that would have to be incurred to replace human resources presently employed. Flamholtz has referred to two different concepts of replacement cost viz., individual replacement cost and positional replacement cost. Flamholtz has referred to two different concepts of replacement cost viz., individual replacement cost and positional replacement cost.

a. Individual Replacement Cost: The replacement cost of individuals in an organisation as conceptualised by Flamholtz comprises of, the present estimated cost of hiring, training and developing individuals upto the normal level of productivity of the existing individuals.

b. Positional Replacement Cost: Besides the assessment of replacement cost of individuals, such a cost item may be estimated with reference to different positions in an organisation rather than specific individuals to be referred to as positional replacement cost.

3. Opportunity Cost Model:

This model of HRA seeks to measure the value of human resources on the basis of common concept of opportunity cost. This model was proposed by Hekimian and Jones to overcome the limitations of replacement cost model. It attempts to estimate the value of human resources by establishing an internal labour market in an organisation through the process of competitive bidding. Under this model all managers of profit centres are encouraged to bid for any scarce employee they want. This is largely artificial method involving the concept of the competitive bidding process. Under this system, profit-centre managers are encouraged to bid for scarce employees, the successful bid being included in the organisation's human investment calculations. Employee abilities are related to profit generation, and may lead to a more efficient allocation of human resources. The employee is allotted to the highest bidder among the divisional managers and the bid price is included in that division's investment base. The authors of this approach claim that this bidding process is helpful in more optimal allocation of human resource and planning, developing and evaluating human resources of a business as it provides a quantitative base for decision making.

Present Value Models:

Under this method, established capital budgeting techniques are applied to people, the argument being that the value of firm's employees is their discounted future earnings. Present value methods try to measure economic value rather than simply record investment in human resources at historic or replacement cost. An alternative approach to value measurement is that of estimating the contribution of human resources to the economic value of the firm. The following are the present value models:

1. Lev and Schwartz Model:

Based upon the economic concept of value this model was suggested by Baruch Lev and Aba Schwartz. According to them, the value of human capital embodied in a person of age X is the present value of his remaining earnings from employments. According to this model, the value of human resources is ascertained as follows:

- i. All employees are classified in specific groups according to their age and skill.
- ii. Average annual earnings are determined for various ranges of age.
- iii. The total earnings which each group will get upto retirement age are calculated.
- iv. The total earnings calculated as above are discounted at the rate of cost of capital. The value thus arrived at will be the value of human resources/assets.

The model of HRA given by Lev and Schwartz ignored the possibility of death prior to retirement age. The model given by Lev and Schwartz can be considered as an improvement over the cost models as it seeks to value the human resources of an organisation on the basis of the economic value of employees of total organisation.

2. Hermanson's Adjusted Discount Future Wages Model:

Roger H. Hermanson has suggested adjusted discounted future wages for the measurement of human resources. The model uses compensation as a surrogate measure of person's value to the firm. Compensation means the present value of future stream of wages and salaries to employees of the firm. The discounted future wages stream is adjusted by an 'efficiency ratio' which is 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 the reverse order i.e., 5 to the current year and 1 to the preceding fourth year. The following formula is used:

$$\text{Efficiency Ratio} = \frac{5\frac{RF0}{RE0} + 4\frac{RF1}{RE1} + 3\frac{RF2}{RE2} + 2\frac{RF3}{RE3} + 1\frac{RF4}{RE4}}{15}$$

Where RF0 = is the rate of accounting income on owned assets for the firm for the current year.

RE0 = is the rate of accounting income on owned assets for all the firms in the economy for the current year.

RF4 = is the rate of accounting income on owned assets for the firm for the fourth previous year.

RE4 = is the rate of accounting income on owned assets for all the firms in the economy for the fourth previous year.

The efficiency ratio measures the rate of effectiveness of the human resources operating in the given entity over a five year period. A ratio greater than 1 implies that, the rate of return of the firm is above the average ratio of return for all firms in the economy. The efficiency ratio has been criticised by certain authors as subjective because of arbitrary weighting scheme and restricting the valuation period to five years only.

3. Stochastic Rewards Valuation Model:

The Flamholtz stochastic rewards valuation model identifies the major variables which determine the value of an individual to the organisation. The model advocates that a person generates value for an organisation as he occupies and plays different roles and renders services to the organisation. The movement of people from one organisational role to another is a stochastic process. As people move and occupy different organisational roles they render service (rewards) to the organisation. Based upon the above concept, a person's expected realisable value of an organisation can be measured as the discounted mathematical expectation of the monetary worth of the future rewards (services) a person is expected to

render to the organisation in future roles he is expected to occupy, taking into consideration the probability of his remaining in the organisation.

4. Jaggi & Lau Model:

The model suggested by Jaggi and Lau is based on valuation of groups rather than individuals. A group implies homogeneous employees who may or may not belong to the same department or division. It might be difficult to predict an individual's expected service tenure in the organisation or at a particular level or position, but on a group basis it is easier to ascertain the percentage of people in a particular group likely either to leave the firm during each of the forthcoming period, or to be promoted to higher levels. In order to consider the role movements of employees within the organisation a Markov Chain representation can be used. The model required the determination of Rank Transitional Matrix and the expected quantities of services for each rank of service. The matrix can be prepared from the historical personnel records of the employees available in the organisation. For the purpose of measurement of quantities of services, certain service or performance criteria are used. The value of the services an organisation's current employee render in a future period is computed by multiplying the estimated number of current employees that will be in each service state in that period, by the value of the service an employee in each state (i.e. rank) renders to the organisation.

The equation for the computation of value of human resources of an organisation using Jaggi & Lau models is given below:

$$TV = (N)rn(T)n(V)$$

Where, TV = Column vector indicating the current value of all current employees in each rank.

(N) = Column Vector indicating the number of employees currently in each rank.

n = time period r = Discount rate

(T) = Rank transitional matrix indicating the probability that an employee will be in each rank within the organisation or terminated in the next period given his current rank.

(V) = Column vector indicating the economic value of an employee of rank 1 during each period.

5. OUTCOME OF THE STUDY

On identifying the various aspects pertaining to HRA, it is found that in Indian organizations the concept of Human Resource Accounting (HRA) has not found a strong placement. If we can review the case of Infosys, the organization practiced HRA for quite long years but however since 2013 Infosys has excluded the valuation of its employees. This reveals an understanding on the rigidity and precision of Human Resource Accounting process and the readiness of Indian organizations.

It is suggested that HRA has to be included in organization's business phenomenon which can serve organizations as multi-dimensional strategy. Human Resources is one such factors of production which are unique in nature and never can be imitated. Since the Indian business horizons are reaching across the boundaries, it is now a need to identify the best approach to facilitate the industrial harmony and economic development. Human Capital indeed is a boon to Indian sub-continent, and the competencies of these resources are real asset for any organization. Make in India Campaign of the state reciprocate the demand for establishing innovative practices for efficient management of HRM and Human Resource Accounting (HRA) is one such tool which can deliberate to analyze the potential of human capital and helps to measure competencies based on the value of human capital.

6. CONCLUSION

The researcher has been able to identify the scope for further study wherein HRA can find its significant contribution in Indian organizations, thus facilitating the overall economic development and organizational growth. The researcher intends to conduct further study where HRA based competency valuation model will be designed. This model will further benefit organizations in their performance measurement analysis, business allocation process and engaging & empowering their human capital efficiently.

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