Innovative model for Assessing Human Assets

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ABSTRACT

There is an old adage that "you can't improve it if you can't measure it". Until recently, the value of an organization is measured through the traditional balance sheet, e.g., Building, Plant, Materials, Money, etc. It was viewed as a sufficient reflection of the organization's assets. However, with the growing emergence of the knowledge economy, the traditional valuation has been put into question due to the non-inclusion of the Human capital in its purview as it is an important part of an organization's total value. The value of Human Resource in an organization should be measured / valued for the sustainable growth of the organization. Hence, the concept of measuring human resources has emerged in the recent past and a few experts have developed methods for the same. A detailed study has been made and proposed a new formula for measuring the value of human resources. By using the proposed formula, the total value of Human Assets in an organization can be valued and may be used for taking measures to increase the Human resource asset.

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Introduction

We are aware that there are 4 M's associated with any organization and they are Money, Machine, Materials, and Men. Of the 4 M's, the first three are treated as assets of the organization and hence find a place on the assets side of the Balance Sheet of the organization. But what about the fourth M, namely, 'Men'? Is it an asset or not? It is a fact that without human resource, no organization is possible. This implies that human resource is, no doubt, an asset. But the question is how this asset is accounted for in the records of the organization. Though the personnel manual provides the information of each employee of the organization, it does not give its actual value of that employee. As the concept of depreciation, there is no provision available in any organization as how the value of human resource depreciates or appreciates. This paper makes an attempt to analyze this aspect and suggests a meaningful model to assess the value of each employee of the organization.

Meaning and Definition of Human Resources Accounting (HRA)

Human Resources in an organization are invaluable; but their value cannot be measured accurately. Knowing this importance, in recent years, Indian corporate sector has shown growing interest in the accounting for human resources. Though various definitions for human resource accounting are available, the one given by Geofrrey M.N. Baker seems to be more meaningful and popular - "Human Resources Accounting is the term applied by the accountancy profession to quantify the cost and value of employees to their employing organization"

Human Resource Accounting is the process of recognizing, measuring, and communicating useful information relating to human resources. It is the information system that tells the management what changes over the time is occurring to the human resources in the business. Most of the definitions regard human being as a resource in an organization and the focus is on its measurement and communication to interested parties because capital and natural resources are the passive factors of production while human beings are active agents and economic growth is the consequence rather than the means of progress in the areas of human resources. So, it can be said that human resource accounting comprises valuation of human resource, recording the valuation in the books of accounts and presenting the information in the financial statements for communication.

Significance of Human Resource Accounting

The HRA is used as an effective tool for decision making. The information generated through HRA may help in making decision in the following area:

- Manpower planning and control.

- Recruitment and Selection.

- Training and Development.

- Retention and Renewal of human resources.

- Decision regarding cost of reduction programme.

- Formulating Policies and Programmes for human resource development.

- Making a choice between various types of human investment and investment in other areas, etc.

Objectives of Human Resources Accounting

The basic objectives of HRA are:

- to facilitate management of people as organization resources;

- to furnish human resource cost and value information for making management decisions about acquiring, allocating, developing and maintaining human resources in order to attain cost effective organizational objective;

- to allow managerial personnel to monitor effectively the use of human resources;

- to help the persons interested in the organization to know whether the human resources are producing a return on investment to their worth or not, etc.

Advantages of Human Resources Accounting

The advantages of HRA are listed below.

- It helps the management to make effective planning and decision-making.

- It helps in estimating the costs such as recruitment, selection, training etc.

- It increases the performance of the employees as they come to know the expectation of the organization.

- It helps the organization to determine whether they have made proper investment in their human resources.

- It helps the organization to frame proper policies on training, transfer, promotion, etc. and also to reduce employee turnover.

Problems in Human Resources Accounting

The following are the objections raised by experts on HRA:

- There is no standardized method to measure human assets as in the case of other assets.

Different organizations follow different techniques in measuring the human assets. Thus the human assets of two organizations cannot be compared.

- As the mobility of the employees cannot be predicted easily, the HRA values them based on the assumption that they remain in the organization. However the assumption may not hold true for all the time.

- The trade unions may go against the concept.

- Human resources sometimes are to be evaluated on team basis and not on individual basis. Further, valuing team as a human resource is a very complicated exercise.

Methods of Human Resources Accounting

The methods of HRA can be discussed under two broad groups, viz.,

- Human Resources Cost Accounting (HRCA).

- Human Resources Value Accounting (HRVA).

- Human Resources Cost Accounting (HRCA).

Human Resources Cost Accounting may be defined as the measurement and reporting of the costs incurred to acquire and develop people as organizational resources. It deals with accounting for investments made by an organization in acquisition and developing human resources as well as their replacement cost. There are different approaches such as

i)Historical Cost Approach, (ii)Replacement Cost Approach (Rensis Likert and Eric G. Flamholtz method), (iii) Opportunity Cost Approach (Hekimian and Jones - Competitive biding - method), (iv) Standard Cost Approach to measure the Human Resource value in terms of money.

Human Resources Value Accounting (HRVA).

This concept is based on the view that difference in present and future earnings of two similar firms is due to the difference in their human organization. The economic value of the firm can be determined by obtaining the present value of future earnings. There are different models such as (i) Lev and Schwartz Model, (ii) Flamhotz Model (Expected Realizable Value), (iii) Giles and Robinson's Human asset Multiplier Method, (iv) Hermanson's Unpurchased Goodwill and Adjusted Discounted future wage Mode, (v)Morse Net Benefit Model, (vi) Stochastic process with Service rewards model etc., to determine the present value of future earnings by the Human Resource of the organizations.

Need for a New Model

Human Resource is qualitative in nature and hence it is different to quantify if accurately.

However, many experts have attempted to quantify the value Human Resource of an organization. Based on this endeavor, many models have been developed (as mentioned under the heading Methods of Human Resource Accounting). An analysis of these models reveals how much price the organization has paid or has to pay in getting an employee or what would be the present value of money to be spent in him over his period of service in the organization . This implies that these models do not quantify the value of an employee at a point of time as a machine or material is valued at a point of time. This calls for a new model to scientifically quantify the value of an employee on any day or at any point of time. The details of the new model are explained below.

An Innovate Model for Valuing Human Asset

The following steps are involved in the model

Step-1. Fixing Weightage

There are some factors which must be taken into account to determine the value of an employee. Some of such factors are age, educational qualification, experience, achievements, skill, health, involvement, absenteeism, punctuality, etc. All these factors cannot be equally treated. Each of these factors relating to an employee, doing a particular job, must be given due weightage. This weightage may vary depending upon the job he is doing. For ex., the factor 'qualification has to be given more weightage in the case of an employee doing R&D work than an employee doing manual work in the production floor. Similarly, the factor 'experience' has to be given more weightage for a maintenance manager than a clerk.

Let us consider the various factors determining the value of a college teacher and their corresponding weightages (according to the investigator). The given in Table 1 below:

Table no 1 : Factor wise Weightage

S. No	Factor to be considered	Weightage (in percentage)	S. No	Factor to be considered	Weightage (in percentage)
1	Qualification	20	6	Average results produced	15
2	Experience	15	7	Regularity	5
3	No. of papers presented in Seminars, Conferences, etc	5	8	Project works carried-out (other than curriculum projects)	
4	Publications in journals	10	9	Programmes organized	10
5	No. of books published	5	10	FDP attended	10

Step-2: Fixing Expected Standard Performance:

No doubt, the actual performance shall differ from employee to employee. However, the organization may expect a standard performance from each employee. This standard performances expected may vary from job to job. For ex., for the factor 'absenteeism' the standard rate allowed for a manager may be 10% in a year while it may be 20% for a typist. The difference in the standard rates is due to the significance and value of the jobs. Thus, the organization must fix standards for each factor and for each job separately. Let the standard fixed for the various factor listed in Step 1 above for a college teacher be as given in Table 2 below

Table No 2 : Factor wise Standard Performance Expected

S. No	Factor to be considered	Expected standard	S. No	Factor to be considered	Expected standard
1	Qualification	60%	6	Average results produced	80%
2	Experience	30 years	7	Regularity	168 days
3	No. of papers presented in Seminars, Conferences, etc	2 /year	8	Project works carried-out (other than curriculum projects)	1/3 years
4	Publications in journals	1/ year	9	Programmes organized	1 /year
5	No. of books published	1 /5 years	10	FDP attended	2 /year

Step-3: Determining Achievement:

The actual performance of an employee relating to each factor considered can be easily measured or known. When this actual performance of an employee relating to the factor is compared with the standard of that factor for that job, the result will give his achievement in that factor. For ex., if the actual performance of an employee is 8 units and if the expected standard performance is 9 units, then his achievement will be 8/9 x 100 = 88.8% (Note: to get achievement, divide the actual performance by the standard expected) Such achievement for each of the factors relating to the employee must be determined.

Step-4: Determining the Score of an Employee:

When the achievement relating to that factor is multiplied by the weightage (fixed in Step-1), it will give his score for that factor. For ex., when the achievement of an employee for a factor is 33.3% and when the weightage given for that factor is 15, then, his score for that factor will be 33.3% x 15 = 5. Such scores must be calculated for all the factors relating to the employee. The sum total of these scores will give his overall score which will represent his value.

Step-5: Quantification of an Employee In Terms Of Money Value:

This total score earned by the employee may be converted into money value as explained below:

Depending upon the philosophy of the management, the total points arrived at in this manner may be converted into money value. For ex., the management may value its total human resources as equal to or less as or more than its material assets or fixed assets or total investments eetc. This relationship can be used to determine the money value of one score of human resource.

For ex., if the total score of the human resource is 1000 and if the total value of the material assets of the organization is Rs.1,00,000 and if the firm equates its human resource to its material asset, then 1000 score = Rs.1,00,000 i.e. the value of one score is Rs.100.

When the philosophy of the management is different, the value of one score in terms of money value may be determined as given in Table no 3 below:

Let the total score of human resource assets of the firm be 1000.

Let the value of total materials of the firm be Rs. 1,00,000.

Table No 3 : Valuation of One Score Under Different Cases

Particulars	Proposition of human resource asset to the organisation's material assets		
	50%	100%	200%
Value of Human Resource Asset (Rs.)	50000	100000	200000
Value of one score of Human Resource Asset (Rs.)	50	100	200

This result can be used to determine the value of each employee. The same approach can be followed to value each employee of the orgnisation and also the total value of the human resources of the enterprise.

Case Study

The new model was used to determine the value of the human assets of a Self-Financing Arts and Science College. The following procedure was adopted in the valuation.

There are different classes of employees working in the college. They are: teaching staff, administrative staff, technicians, and menial staff. The scope of the study was restricted to teaching staff alone.

Then, the various factors which contribute to the value of a teacher in an Arts and Science college were identified. They are: educational qualifications, experience (in years), number of papers presented in seminars, conferences etc., number of publications, number of books authored, average results produced, regularity, programmes organized, project works carried out (other than curriculum projects). Faculty Development Programmes (FDP) attended, etc., (This list may extend depending upon the expectation of the management from the teaching staff)

A weightage to each factor was fixed in consultation with the management. The

weightage given to each factor under consideration is given in Table 1.

Then the standard expectation of the management for each factor was decided. How the standard was decided for each factor is explained below:

Educational Qualification: The minimum qualification for a college teacher as fixed by the University is a Second Class PG Degree. Hence, second class PG degree may be taken as the standard expected and this standard may be quantified as 60%

However, the actual qualification of a college teacher may be more than this standard. In such cases, the additional qualifications have to be given due weightage and hence such additional qualifications may be quantified as given below:

First Class PG Degree	:	70%
M.Phil	:	80%
Ph.D	:	100%
For each additional PG Degree	:	10%
For each additional PG Diploma	:	5%
For each additional Diploma	:	2.5%

Experience : The maximum experience of a college teacher (to get full pension) is 30 years and hence this 30 years may be taken as the standard experience.

Number of Seminar Papers Presented: It may be decided that a college teacher must have submitted atleast one paper in a seminar or conference in a year of his service. For eg., if a teacher has put in, say, 7 years of service, he would have presented 7, papers. That is, the standard expected for the factor seminar papers presented is 7.

Note: The same method can be followed to fix, standards for the factors 'Articles published', 'Books authored', 'Project works carried out (other than curriculam projects)', and 'FDP attended'. Only the expected number and the period may vary, but not the method.

Average Results Produced : A college teacher has to handle more subjects to different classes simultaneously. The calibre of this students will vary from class to class. Under these circumstances, it is not possible by a teacher to produce cent percent results in all the subjects handled by him. Hence, the average results expected to be produced by a teacher may be fixed at 80%.

Regularity : A college teacher is expected to attend all the college working days except the eligible holidays and not more than that. For eg., if the number of working days in an academic year is 180 and if a teacher is eligible for leave at the rate of one day for each month, he has to attend the college for 168 days. Thus, the standard for regularity may be fixed as 168 days.

The standards fixed for each factor considered to determine the value of a college teacher is given in Table 4.

Table No 4 : Factorwise Weightage and Expected Standard

S. No	Factor to be considered	Weightage (in percentage)	Expected Standard	S. No	Factor to be considered	Expected Standard	Weightage (in percentage)
1	Qualification	20	60%	6	Average results produced	15	80%
2	Experience	15	30 years	7	Regularity	5	168 days
3	No. of papers presented in Seminars, Conferences, etc	5	2 /year	8	Project works carried-out (other than curriculum projects)	5	1/3 years
4	Publications in journals	10	1/ year	9	Programmes organized	10	1 /year
5	No. of books published	5	1 /5 years	10	FDP attended	10	2 /year

Determination of the value of the teachers of the college under consideration is given below.

The next step was to get the various details about each teacher. This was obtained through a prescribed 'Data Sheet'. This 'Data Sheet' will give the actual performance of each teacher on each factor considered to value him.

With the help of the data of each factor, the score earned by him was calculated as explained earlier. As there were 30 teachers in the college, the individual scores earned by each teacher was calculated.

After calculating the score for each teacher, the sum of all these scores was obtained. In this case, the sum of the scores was 1347.3. This total score gives an idea about the total value of the human assets of the college.

To determine the total value of the human assets of this college in terms of money, the management's opinion was sought. The management stated that the total value of the assets of this institution (land, building, laboratory, library, furniture, vehicles, etc.) was Rs.10 cr. and opined that the value of the faculty members could be taken as one fourth of its total assets. If so, the total value of all the teachers of the college would be Rs.2.5 cr.

That is, the value of the total score of 1347.3 is Rs.2.5 cr. or in other words, the value of one score of human asset of this institution is Rs.2.5 cr/1347.3 = Rs.18555.63. This value can be used to calculate the value of each teacher. For example, when the total score earned by a teacher is 42.86, his value in terms of money value would be

42.85 x Rs.2.5Cr/1347.3 = Rs.7,95,294.29

Note: In converting the score value into money value, the same method may be used, or, we can assume a money value for one score. For example, if we assume that the money value for one score is taken as Rs.1000/- than the value of a teacher whose score is 42.86 would be 42.86 x Rs.1000 = Rs.42,860/-

Future Direction for Further Research:

The human asset of every firm plays an important role in the success of the firm. However, it has not been properly accounted for due to the inherent problem in valuation. Though various approaches to valuation of human resources asset are available, they are not free from limitations. In view of this it does not find a place in the financial statement of the firms. It is hoped that the new approach mentioned in this paper will make a proper valuation of the human resources of an organization and hence may be used to represent the organization's human resource asset. The author has used the new approach in an educational institution to evaluate its human resources. The scope can be extended to other industries like Manufacturing, retailing and so on to evaluate the value of its human resources.

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