

Valuing Human Resources To Create Value - A Case Study Of Infosys Ltd.

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INTRODUCTION

Human is the buzzword in the modern knowledge-based society. It is the most vital input on which the success & failure of the organization depends. It is one of the most important 'M's among (which is considered while taking care) the 4M's associated with any organization & they are Money, Machines, Material & Men. Even so, the most interesting thing is that the first three are recognized and find a place in the assets' side of the Balance Sheet of an organization. But in the case of the fourth one, ambiguity prevails among the accountants. Although its usefulness has been acclaimed in various literatures over the decades, but its application still remains a susceptible issue. The IASB & the ASB in the different countries have not been able to formulate any specific accounting standard for measurement & reporting of such valuable elements.

When the working of any organization is to be analyzed, one important aspect that is seen is that how valuable are the resources owned by it. This value can be ascertained both qualitatively and quantitatively. As far as the material resources are concerned, their value can be determined both qualitatively (i.e. the quality of product produced) as well as quantitatively. However, when we apply the same criterion of valuation with respect to the most important asset of the organization, i.e. the HUMAN RESOURCES, the results are not satisfactory. The organizations deal at the most, with the qualitative aspect, and that too emphasize more on the training aspect, but proper explanation of the quantitative aspects is still lacking. In the absence of any accounting standard relating to 'Human resource accounting', majority of the organizations are focusing attention towards the quantitative aspect & hence, this aspect is being ignored.

HISTORICAL BACKGROUND OF HUMAN RESOURCE ACCOUNTING

Although no standard exists for the valuation of human resources, but a number of persons have made their contribution in the field of Accounting for Human resources. Human Resource Accounting can be done in two ways, i.e. on the basis of cost & on the basis of value. This aspect of valuing the HR was emphasized by R. Lee Brummet in 1970. He explained in his paper, that if this aspect is given importance in the organization, then it will be quite beneficial for the same, as managers would be encouraged to give more serious consideration to human resource investment decisions & the human resource impact of all their decisions. The original contribution in the field of accounting for human resources was given by Rensis Likert of the University of Michigan's Institute of Social Research [R.Lee Brummet, Eric G. Flamholtz & William.C. Pyle, 1968]. He held a view that managers are sometimes encouraged to put pressure on employees for cost reduction, due to which, the current net income increased, but it eventually leads to deterioration in the motivation, attitude & psychological variable. Hence, he suggested a better approach, i.e. an accounting system for the human resources which would adjust the net income of the human resources.

Likert listed the following objectives of human resource accounting [Likert & Pyle, 1971].

- ❖ To furnish cost value information for making management decisions;
- ❖ To monitor effectively, the use of human resources;
- ❖ To provide a sound & effective basis of asset control, i.e. whether assets are conserved, depleted or appreciated.

The organization which actually applied the concept of HRA in practice was R.G. Barry Corporation, which applied the HRA concept, first for the managerial personnel, & then for other human resources. However, there is a controversy regarding the fact that whether human resources can be regarded as assets & accounting values can be given to them or not. One school of thought says that as we derive a number of benefits from the human resources & as

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the human resources are capable of giving future benefits, it is both possible, as well as viable, to give accounting values to human resources & then to find out the worth of the employees. On the other hand, the second school of thought believes that as it is impossible to possess the human resources like other physical assets, it is neither possible nor viable to give accounting values to human resources. **There are two main problems with regards to the valuation of Human resources:**

1. There is an absence of any standard regarding the valuation of human resources.
2. Different persons have given different models for valuation of human resources & views of one person are criticized by the other.

The first problem is discussed above. The second problem is that the views of different parties regarding the fact that how human resources should be valued lacks consistency & the views of one party are criticized by the other.

For example, Flamholtz criticized the model given by Lev & Schwartz [Eric. G. Flamholtz] by saying that the model given by Lev & Schwartz considers the determination of value of an individual solely on the basis of quality, traits & skills. But actually, the value of an individual, besides depending upon the above factors, also depends upon the organizational roles in which the individual is utilized. These organizational roles as defined by him are called as *Service States* [Eric Flamholtz]. He mentioned that the movement of an individual from one state to another is termed as '*transition*' between the states. As this cannot be predicted with certainty, the state to be occupied in the future, will be determined on the basis of probability. However, as an answer to the criticism of Flamholtz, Lev & Schwartz supported their views and said that their model is being criticized for not defining the investor decisions for which human capital information is useful. However, a pre-requisite for such a definition is the existence of a well defined & empirically valid set of decision models used by the investors. Moreover, in the absence of any such formal models, it is impossible to define precisely, the role of human capital information in decision making [Baruch Lev & Aba Schwartz, January 1972].

Another example of difference in the views regarding valuation is Doug Snowball's criticism [Doug Snowball, January 1979]. In his paper, he criticized James A. Hendricks' study on valuation of human resources since it lacked the significance of any reward system on the valuation.

Jaggi and Lau mentioned (in their paper) an approach on a model for human resource valuation [Bikki Jaggi & Han Shiang Lau, 1974]. They mentioned that there are some important variables which human resource valuation models must include. The objective of such a model is to determine the value of the employee's service. The value is related to the length of the service & absolute position occupied by them. Moreover, the usefulness of the model is judged on the basis of its capacity to help the users in the process of decision making. They believed that instead of valuing human resources on an individual basis, a better approach is to value them on a group basis.

Besides this, there are a number of other authors who have contributed in the field of accounting for human resources. Accordingly, for valuing human resources, different models have been developed. Of these, the model suggested by Lev & Schwartz has become popular. Under this model, the future earnings of the human resources, until retirement, are aggregated & discounted at the cost of capital to arrive at the present value [M. Narayanankutty, 2003].

The valuation of human resources can help the management to take decisions & improve the effectiveness of their decisions. Moreover, the morale & motivation of the employees is enhanced when they feel that they are also given due consideration at a place where they spend one-third of their time & in some cases, even more than that. The employees start counting themselves as a part of the organization, and are motivated to work in a better way, as now, their value also matters.

HRA IN INDIA

The concept of HRA in India is of recent origin and is struggling for acceptance. In India, financial statements are prepared as per Companies Act, 1956. So far, as the statutory requirement is concerned, the Companies Act, 1956 does not require the furnishing of any significant information about human resources in the balance sheets of companies. However, there is nothing to prohibit companies to attach information about the value of human resources during the accounting year in notes & schedules [N.P. Aggarwal, S.C. Bardia, 1988]. In addition to it, the Institute of Chartered Accountants of India (ICAI) has also not issued any accounting standard for the measurement & reporting of the cost and value of human resources of an organization.

But a growing trend towards the measurement and reporting of human resources, particularly, in the public sector has

been noticeable during the past few years. BHEL, Cement Corporation of India, ONGC, Engineers India Ltd., National Thermal Power Corporation, Minerals and Metals Trading Corporation, Madras Refineries, Oil India Ltd., Associated Cement Companies, SPIC, Metallurgical and Engineering Consultants India Ltd., Cochin Refineries Ltd., etc. are some of the organizations, which have started disclosing some valuable information regarding human resources in their financial statements [M.Narayanankutty, 2003]. In the private sector, Infosys and Reliance Industries have implemented HRA, and some other players are working on it. Infosys, which started showing human resource as an asset in its balance sheet, has been reaping high market valuations.

MODELS FOR VALUING HUMAN RESOURCES

Over the years, a number of models have been put forward to compute the value of human resources. The various models for valuing human resources are:

1. Cost Based Approach : This approach can be operationalized through the historical cost model, replacement cost model, or opportunity cost model.

2. Value Based Approach : It can be operationalized through a number of models viz Brummet, Flamholtz & Pyle, 1969; Lev, Baruch & Aba Schwartz, 1971; Flamholtz, 1973; Hekemian & Jones, 1967; Hermanson, 1964; Brummet, Flamholtz & Pyle, 1968; Jaggi & Law, 1974; Myers & Flowers, 1974.

The cost-based approach focuses on the cost parameters, which may relate to historical cost, replacement cost or opportunity cost. The value-based approach suggests that the value of the human resources depends upon the capacity to generate revenue. All these models, apart from providing a different approach, provides a different mechanism for computing the value of a worker to the organization, being based on different theoretical foundations adapted by the researchers from the different disciplines. The variables of the models have been:

- ✿ The quantum of contribution made to an organization by an employee;
- ✿ The probability of transition from one service state to another (including exit state);
- ✿ A discount factor to calculate the present value of a prospective stream of contribution.

RATIONALE FOR THE STUDY

The basic premises underlying the theory of Human Resource Accounting are:

1. People are valuable resources of an enterprise.
 2. The usefulness of the manpower as an organizational resource is determined by the way in which it is managed.
 3. Information on investment and value of human resources is useful for decision-making in the enterprise.
- The present paper endeavors to study the human resources practices followed in a single organization over a period of five years. For the purpose of the study, Infosys was chosen intentionally. Information technology is a rapidly changing industry, the skill & knowledge of the employee plays not just an important role, but a major role. So, an attempt has been made in the present study to examine how human resources are valued at Infosys.

OBJECTIVES OF THE STUDY

Following are the underlying objectives of the present study:

1. To assess the way of presenting human resource accounting information in the financial statements by Infosys.
2. To identify HRA method & model, that is used to arrive at human resource value at Infosys.
3. To analyze how human resources are related with the other accounting variables for the purpose of human financial reporting in Infosys.

REVIEW OF LITERATURE

An attempt has been made to review the available literature on this subject, which has been discussed as under: Gupta, Dinesh K. (1997) highlighted that valuing the intellectual asset will help the organization to know the worth of the human resources. He further evaluated that the value of different teams of human resources engaged in different intellectual assets creation assignments can be calculated & a judgement can be made regarding the judgement of different teams.

Kolay, M.K. (2000) in his study made an attempt to prove that the basic reason for valuing the human resources is not to put them on the balance sheet, but to use them for the purpose of valuing human resources. This could be possible by calculating the cost based on various criterion & then use this cost to take decisions. The researcher further highlighted that the human-resource cost element, along with other elements of cost, can be allocated & apportioned in order to determine the relevant cost of each product or service.

Narayanan Kutty, M. J. (2003) focused on the concept of human resource accounting as used by Indian companies. He described that Human resource accounting system consists of two parts namely, the investment made in human resources and the value of human resources. Rao, D. Prabhakara (1992) in their paper emphasized on the conceptual Lev & Schwartz model for the valuation of human resources. The authors also highlighted the modified version of the Likert's model in the form EF, i.e. the efficiency factor, which can be derived from the weightages attached to age, experience, skill formation, skill obsolescence, etc.

Raju, T. Kumar, M. Ashok and T. Sangeeta, Mohandas (2004) in their empirical paper focused on the Rensis Likert's contribution in the field of human resource accounting. However, the researchers left further scope of the study due to the controversy regarding the valuation of human resources, i.e. whether it should be included in the balance sheet or not.

Parameswaram R. And Jothi K. (2005) emphasized on the legal framework of human resource accounting. The study focused on the fact that the Companies Act, 1956 does not provide for disclosure of human assets in the financial statements of the company. Some issues relating to internal & external benefits of human resource accounting also formed the part of the study.

RESEARCH METHODOLOGY

The present study is based upon the secondary data collected from various magazines, journals, websites and annual reports of the company. Infosys Ltd. was chosen for the effective understanding of the human resource accounting. The reason being that this company is one of the few, which provides an excellent background for valuing the human resources as a most valuable and accountable asset of the company. So, the present paper has focused on how human resources are a part and parcel of other components and variables of the company. For the purpose of the study, a sample of five years was taken i.e. from the year 2004-2005 to 2008-09.

HRA IN INFOSYS

In the financial year 1995-96, Infosys Technologies (Infosys) became the first software company to value its human resources in India. The company used Lev & Schwartz's model & valued its human resource assets at ₹ 1.86 billion. To calculate the value of human assets, all the 1172 employees were divided into five groups, based on their average age. Each group's average compensation was calculated. Infosys also calculated the compensation of each employee at retirement by using an average rate of increment. Infosys had always given importance to the role of employees in contributing to the company's success. N.R. Narayana Murthy, the then Chairman & Managing Director of Infosys said: *"Comparing this figure over the years will tell us whether the value of our human resources is appreciating or not. For a knowledge intensive company like ours, that is vital information."*

LEV & SCHWARTZ MODEL

The Lev & Schwartz model states that the human resources of the company is the summation of the value of all the Net Present Value (NPV) of the expenditure on employees. The human capital embodied in a person of age r is the present value of his earnings from employment. Under this model, the following steps are adopted to determine the HR value.

- i) Classification of the entire labour force into certain homogeneous groups like skilled, unskilled, semi-skilled, etc. . For instance, in Infosys, the classification is based on software professionals & support staff.
- ii) Construction of an average earning stream for each group. At Infosys, incremental earnings based on group/age have been considered.
- iii) Discounting the average earnings at a pre-determined rate, in order to get the present value of human resources of each group.
- iv) Aggregation of the present value of different groups, which represent the capitalized future earnings of the concern

$$V_r = \frac{I(t)}{(1+r)^{t-r}}$$

as a whole.
 Where, V_r = the value of an individual r years old;
 $I(t)$ = the individual's annual earnings up to retirement;
 t = retirement age;
 r = the discount rate specific to the cost of capital to the company.

ASSUMPTIONS OF INFOSYS'S HRA MODEL

Infosys's HRA model is based on the present value of the employees' future earnings, with the following assumptions:

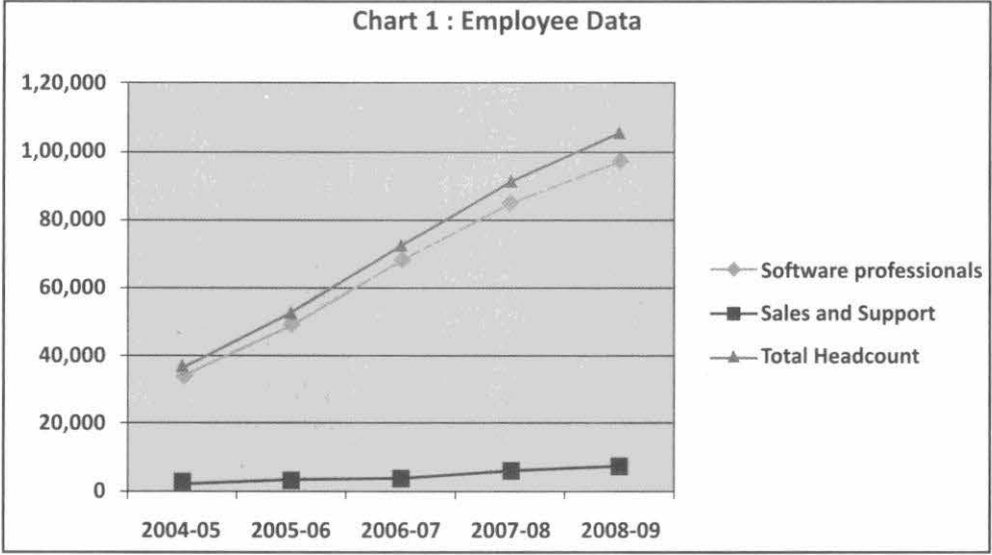
- ⊗ An employee's salary package includes all benefits, whether direct or otherwise, earned both in India & in a foreign nation.
- ⊗ The additional earnings on the basis of age & group were also taken into account.

Infosys recognizes the value of its human resources & hence, as a part of 'Additional Information to Shareholders', the company is following human resource accounting to show the accounting values of their human resources. For the purpose of valuing human resources, these are divided into two parts by the company:

- (i) Production Staff
- (ii) Support Staff

The support staffs itself includes the technical staff & the other staff. Technical staff includes trainees, employees in R&D activities, and support personnel allocated to production. The importance given to the human resources by the company is clear from the annual reports of the company. Besides giving the quantitative information regarding the value of the employees, it is also providing information about how important it considers its employees.

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Total Headcount	36,750	52,715	72,241	91,187	104,850
Software professionals	34,417	49,495	68,156	85,013	97,349
Sales and Support	2,333	3,220	4,085	6,174	7,501



It is evident from the Chart 1 that the number of employees at Infosys Ltd. has been increasing over a period of time. The proportion of the increase in software professionals shows a much higher trend, than the increase in sales & support professionals. The underlying reason behind this can be attributed to the fact that Infosys being a knowledge-

intensive company, the demand for software professionals will always be more.

The company holds the belief that the success of an organization depends upon the contributions made by its human resources. That is why a separate section in the annual report is devoted to information regarding the contributions made by the human resources of the company. The Table 2 gives a brief description about the importance given to the human resources in the subsequent annual reports.

Table 2 : Qualitative Representation Of Human Assets In Financial Statements	
Year	Statement issued by Infosys Ltd. in Annual reports
2004-05	"Our ability to deliver value to clients depends largely, on our ability to attract, train, motivate, empower & retain the best & highest professionals."
2005-06	"HR represents the collective expertise, innovation & leadership, entrepreneurship & managerial skills endowed in the employees of the organization."
2006-07	"Knowledge intensive companies leverage know - how, innovation and reputation to achieve success in the marketplace. Hence, these attributes should be measured and improved upon year after year to ensure continual survival."
2007-08	" The profitability of a knowledge firm depends on its ability to leverage the learnability of its professionals and to enhance the reusability of their knowledge and expertise. "
2008-09	"The intangible assets of a company include its brand, its ability to attract, develop and nurture a cadre of competent professionals, and its ability to attract and retain marquee clients."

Table 3: Quantitative Representation Of Human Assets In Financial Statements					
BASIS	2004-05	2005-06	2006-07	2007-08	2008-09
Value of HR	28334	46637	57452	98821	102133
Discount Rate for future earnings	13.63%	12.96%	14.97%	13.32%	12.18%
Total Revenue	7130	9521	13893	16692	21693
TR/HRV ratio	0.25	0.20	0.24	0.17	0.21
Employee cost	3539	4801	7112	8878	11405
EC/HRV (%)	12.49	10.29	12.4	9.0	11.2
Value Added	6053	8027	11879	14820	19073
Value Added/HRV ratio	0.21	0.17	0.21	0.15	0.19
Net Profit	1846	2479	3861	4659	5988
Return on HRV (%)	6.52	5.32	6.7	4.7	5.9

The Table 3 can be analyzed as follows:

☛ **Value Of HR:** The absolute value of HR shows that it is increasing over a period of time from 2004-05 to 2008-09. However, if we look at the value of human resources in relative terms, i.e. relate it with total revenue for finding out the ratio of total revenue to human-resource value, then no fixed trend can be seen. So, this ratio shows a fluctuating trend.

Table 4: Attrition Rate At Infosys Ltd.	
Year	Percentage Of Attrition
2004-05	9.7%
2005-06	11.2%
2006-07	13.7%
2007-08	13.4%
2008-09	11.1%

✿ **Employee Cost:** The employee cost, which is an indicator of the amount incurred on the employees of the company, is also showing an upward trend.

✿ **Value Added:** It is very important to know for any organization to know that how much value is contributed by an employee. The value added per employee in case of Infosys Ltd. is showing a fluctuating trend.

✿ **Net Profit:** Although Net profit is increasing in absolute trends, but if we correlate it with HRV, again, no specific trend can be seen.

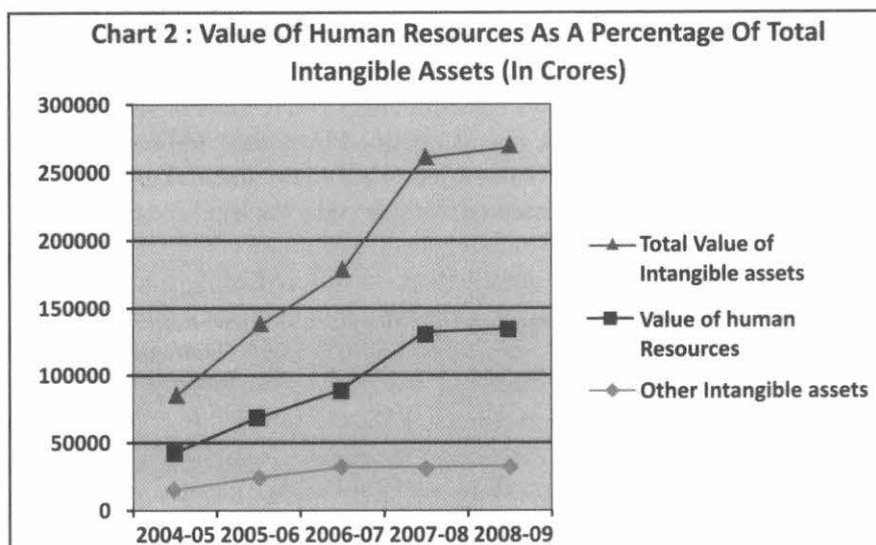
The Table 4 shows that except for two years, i.e. 2005-06 & 2006-07, the result of attrition rate is satisfactory. Since the last three years, the rate is decreasing, which indicates that the employees are satisfied in the company.

YEAR	AWARD	AWARDED BY
2005-06	"India's best managed company"	Business Today & A.T. Kearney
2006-07	"Best Company to work for"	Business Today (BT-Mercer - TNS Survey)
2008-09	"Best Company for Leaders"	Chief Executive magazine & Hay Group

The employees are regarded as the most important asset at Infosys Ltd. This is evident from the awards won by the company in the field of Human Resource Management in past years (Table 5).

Year	Total Value Of Intangible Assets	Value Of Human Resources	Percentage
2004-05	42487	28334	67%
2005-06	69552	46637	67%
2006-07	89069	57452	65%
2007-08	130684	98821	76%
2008-09	134478	102133	76%

The Table 6 shows that clearly, the value of human resources as a percentage of intangible assets is increasing over a period of time. In 2008-2009, this percentage was more than two thirds (76%) of total intangible resources.



FINDINGS

The major findings of the study are as follows:

- ✿ The company follows the Lev & Schwartz model for valuing its human resources.
- ✿ The value of human resources is shown in Additional Information to Shareholders as Intangible assets by the company.
- ✿ The employees of the company are divided into two categories - Software professionals and Support Professionals.
- ✿ The absolute value of HR shows that it is increasing over a period of time from 2004-05 to 2008-09. But the ratio of total revenue to human-resource value has no fixed trend.
- ✿ The employee cost, i.e. the amount incurred on the employees of the company, is showing an upward trend. However, the value added per employee in case of Infosys Ltd. is showing a fluctuating trend.
- ✿ Although the Net profit is increasing in absolute trends, but if we correlate it with HRV, again, no specific trend can be seen.
- ✿ The attrition rate has been decreasing, which indicates that the employees are satisfied with the company.
- ✿ A number of awards have been achieved by the company in the capacity of an employer, which shows that the company considers HR as its most valuable asset.
- ✿ The value of human resources as a percentage of intangible assets has increased manifold over a long period of time.

RECOMMENDATIONS

Based on the findings of the study, the following recommendation have been made:

- ✿ Although the company is giving information about HR, yet, it needs to put some more efforts in this area. As it is shown in the study that the return on HRV is showing a decreasing trend, so an effort should be made to find out the reason for such a downfall in spite of giving so much importance to the human resources.
- ✿ Looking at the fluctuating trend of the value added per employee ratio, the company needs to put more focus on the same.
- ✿ The company values its human resources on a Group basis, i.e. a total value of employees is given. Rather, an effort should be made to compute the incremental values of its key personnel every year.

CONCLUSION

The Success of every firm depends upon calibre, honesty, quality and character of the employees working with the organization. Employees are the important assets of an organization and the success, and failure of an organization depends upon the skill and performance of the employee. To conclude, the HR accounting system tries to evaluate the worth of human resources of an organization in a systematic manner and records them in the financial statements to communicate their worth, with changes in time & results obtained from their utilization, to the users of financial statements. Hence, looking at the importance of HRA, now it is required for undertakings to maintain a separate item in their balance sheets about such HR activities undertaken by them under the legal and professional guidelines. Hopefully in the future, the HR practitioners & the budding leaders of future enterprises would work together to use HRA in every organization. This will help, to a great extent, in differentiating humans from mere operators of machines to intellectual capital. The journey has thus begun as HRA is in its infancy & there are miles to go.

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