



Human Resource Accounting Practices in Private Sector Companies in India (With Special Reference to Infosys)

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ABSTRACT

The employees are the most valuable among all the available resources in the service sector. They, like other resources of the company, possess value because as they provide future services. It would be a worthwhile exercise identifying and measuring the value of human capital. With ever-increasing knowledge and skills the economy has become more dependent on its human resources thereby making it an integral part of success. The growth of the software companies all over the world depend on its human and intellectual resources making retention and maintenance of these a primary aim of all employers. These employees are assets that appreciate in value through the skill, knowledge and experience they acquire while working in the organization. Their departure from the organization makes the business lose an essential element of intellectual capital. The loss becomes greater if such intellectual element is acquired by a rival business concern. This makes the valuation of this asset essential for the success of the company and by reporting it to the public it enhances the image of the company. The present study aims to discuss the human resource accounting system followed by private sector companies in India. In 1995-96 Infosys became the first software company to value its human resources in India in The specific objective of this paper is to critically discuss the human resource accounting practices followed by Infosys, one of the best Service and Software Company of India.

Keywords-- Human Resources, Human Resource Accounting, Infosys, Lev & Schwartz

I. INTRODUCTION

The twenty first century has witnessed globalization of business and service. The role of the human forces in the success of any business concern has gained importance as each requires both physical assets and human resources for its success. In the absence of human resources all the physical assets like buildings, offices, computers etc. become unproductive. Human resources are a true valuable resource that a firm must possess as they are responsible for the effective utilization of all physical and financial resources. Better the quality of human resources better is the management

and utilization of other resources. They are the key elements of the knowledge economy. It therefore becomes essential that human resources are recognized as an integral part of the total worth of an organization in the knowledge driven economies. Failure of conventional accounting to treat human resource as an asset has led to the development of 'Human Resource Accounting'.

American Accounting Association (1973) defines Human Resource Accounting as "the process of identifying and measuring data about human resources and communicating this information to the interested parties".

Human Resource Accounting emphasizes the fact that human resources should be treated as assets like physical and financial assets because the quality and caliber of the people working in an organization are the real assets of a firm. Human Resource Accounting is mainly concerned with:

- Identification of data regarding human resources of an organization.
- Measurement of the data in terms of cost and value.
- Communicating this information to the interested parties.

II. REVIEW OF LITERATURE

The concept of human capital is not a recent discovery. Its origin dates back to the late seventeenth century when the economist, Sir William Petty first attempted to estimate the monetary value of the population of England in 1681. He considered labour as the 'father of wealth' and stressed that it should be included in the estimate of the total national wealth. The credit for recognizing the value of human resources as an asset goes to William Paton (1962) when he commented, "in a business a well organized and loyal personnel may be a more important asset than a stock of merchandise." However the fact remains that it was Rensis Likert (1967), a Social Psychologist at The Institute for Social Research, University of Michigan, who first

used the term 'human asset' a term since replaced by human resources. So it was he who originally developed it. To measure the value of human resources different techniques have been developed. Human Resource Cost Accounting (HRCA) and Human Resource Value Accounting (HRVA) are the two main approaches usually employed for this.

In HRCA, the expenses incurred on acquisition, training and development of human resources are treated as an investment and hence shown in the balance sheet as an asset and the periodical write offs out of these investments are charged to profit and loss account. The original cost model of Brummet and others (1968) made the suggestion to capitalize the firm's expenditure on recruitment, selection, training and development of human resources, amortizing such costs over a period and then reporting the net investment in human resources in the Balance Sheet under the heading 'human assets'. From 1968 to 1974 R.G Barry Corporation of U.S.A implemented this method for valuation of human resources and reported the information externally. In 1973 'Replacement Cost Approach' was developed by Rensis Likert and Eric G. Flamholtz. As per this approach the cost of alternative use of employee is value of human resource. Hekimian and Jones (1967) gave an 'Opportunity Cost Approach' based on the principle that human assets will be valued while it is scarce.

HRVA is based upon the economic value of human resources to an organization. Hermanson (1964) proposed an 'Adjusted Present Value' model to quantify the value of human capital of a company. He suggested that the amount of future wages payable represent a liability whereas human resources is an asset in the Balance Sheet.

Lev and Schwartz (1971) valued human capital as the present value of future earnings of employee till retirement. Flamholtz (1971) developed 'Stochastic Rewards Valuation' model and determined the value of human assets by aggregating the present value of expected future services of employees. Jaggi and Lau (1974) model considers groups for valuation rather than individuals.

As per Giles and Robinsons (1972) Human Asset Multiplier Model the capitalized value of the company calculated on the basis of price earnings ratio minus net assets are the human resources. Morse (1973) in his 'Net Benefit' method considers that human resources value is equal to the present value of the gross value of services to be rendered by human beings minus present value of the future payments to human beings. Pekin Ogans (1976) suggested a model known as 'Certainty Equivalent Net Benefit Model' that is the extension of net benefit model of Morse. Certainty with which the net benefit in future will accrue to the organization is the value of human resources. Chakraborty (1976) suggested a model for valuation of human resources known as 'Aggregate Payment Approach'. The

value of human resources is calculated by multiplying the average salary with the average tenure of the employee.

Gupta, D.K (1990), Patra, R and Khalik, S.K (2003), Sonara, C.K and Patel, A (2009) conducted a study to know the current status of human resource accounting in the Indian context. All these studies were conducted to find out the current practices followed by the Indian organizations for Human Resource Accounting. The studies concluded that very few companies come forward for reporting Human Resource Accounting as it is not compulsory for them to disclose human resources information in their annual reports.

III. OBJECTIVES OF THE STUDY

Human capital is now considered to be a critical component that forms the basis of other forms of capital. This led to the emergence of knowledge based industries that viewed human asset valuation as a trend. Through HR valuation the companies are in a position to know the value they would forgo when they are about to lose a person. The present study aims to discuss the human resource accounting system followed by private sector companies in India. The basic theme of the present paper is to study the human resource valuation practices followed by Infosys. In the financial year 1995-96 Infosys became the first software company to value its human resources in India. Due to this reason the company is selected for the study. The human resource valuation in India is mostly based on the present value of the future earnings of the employees. Despite the fact that it is neither mandatory for the Indian companies to value their human resources nor are there any accepted standards for its valuation few companies in the Indian corporate world are evincing keen interest in accounting for human resources. The specific objective of the present study is to critically evaluate the human resource accounting systems of Infosys.

IV. RESEARCH METHODOLOGY

In the present study most of the secondary data needed has been collected from the published annual reports of the companies. For the present study, top one hundred private sector (as per the Economic Times rating for 2007-08 on the basis of total capital employed) were selected. These organizations have been taken on the assumption that human resource accounting being an emerging field in accounting in India, large organizations might introduce it in their annual reports. The annual reports of these companies were scanned for the period 2006-07 to 2010-11 to identify companies that publish human resource accounting information. It was found that only four companies report HRA information in their annual reports. On the basis of information disclosed by these four organizations evaluation of the system followed by these organizations is done. The annual reports of Infosys for 2006-07 to 2010-11 were scanned to critically evaluate the human resource

accounting information disclosed by the company. The table of trends in structure and value of human resources of Infosys for five years is prepared after scanning the annual reports to find the reason of variation in the value of human resources of that organization. Various ratios were also calculated to find out as to how human resource valuation helps in judging the productivity and performance of human resources of a particular organization.

V. HUMAN RESOURCE ACCOUNTING SYSTEM IN PRIVATE SECTOR COMPANIES IN INDIA

In India, most of the annual reports of companies contain the speech of the Chairman of the concerned enterprise. The Chairman of every company invariably remarks at the annual general meeting of the shareholders, "Our employees are our most important assets and without their significant contribution, the present growth in the operations would not have been attained." As the Indian companies are not under any compulsion to report the human resource value in their annual reports and are only bound to disclose the particulars of those employees who are drawing salary of rupees two lakhs per month or more few companies in India come forward for reporting human resource accounting information. Out of 100 private sector companies only four companies are disclosing HRA information in their annual reports. These are:

1. Infosys Limited
2. Satyam Computers Limited
3. Rolta India Limited
4. KPIT Cummins Infosystems Limited (KPCIL)

The study of human resource accounting systems of four organizations in India provides an overview of the current status of human resource accounting in private sector companies in India. On the basis of the information disclosed by the organizations certain general observation can be made. All these organizations being IT and service companies attracted towards the application of human resource accounting.

All the organizations applied the Lev and Schwartz (1971) model for assigning value to their human resources despite its limitations. This model calculates the present value of human resources in terms of the present value of future earnings of human resources. The human resource accounting information in the annual reports of these organizations form only a part of the supplementary information. It lacks authenticity as it is unaudited. Moreover all organizations do not disclose all the variables that have been considered for valuation of human resources. The discount rate used by these organizations to calculate the present value of future earnings of employees was also quite different. None of the organizations reporting human resource accounting information was providing HRA information as a part of the income statement and for the balance sheet. Only Infosys and Satyam disclosed human resource value in 'Social Balance

Sheet'. The value of human resource shown on the asset side under the head 'human asset' and the same amount was shown under the head 'contribution towards human resources' on the liability side of Balance Sheet. It means that their net value is zero.

Though all these organizations have valued their human resources but it has not been mentioned as to how they are treating the huge expenditure incurred by them on hiring, training and developing their employees. Obviously, they are charging such expenditure wholly to the profit and loss, which is against the accounting principles.

The value assigned by Indian companies to their human resources just denotes the present value of the costs with respect to the remaining service life of an employee that an organization would bear rather than the contributions that it will receive from human resources. It appears that organizations have stressed upon 'Human Capital Accounting' rather than the 'Human Asset Accounting'. In June 2009 the beleaguered Satyam Computer Services was acquired by Tata Mahindra and the company became Mahindra Satyam. The company after this also stopped reporting its tangible assets value in the annual reports.

VI. HUMAN RESOURCE ACCOUNTING SYSTEM IN INFOSYS

Infosys Technologies Limited is a leading information technology (IT) company that provides end to end business solutions that leverage technology. It was founded in July 1981 by N. R. Narayana Murthy and his colleagues. It was incorporated as Infosys Consultants Private Limited at Mumbai. It changed its name to Infosys Technologies Private Limited in April 1992 and its registered office was moved to Bangalore. In June 1992 the company was converted into a Public Limited Company under the name Infosys Technologies Limited. From June 2011 it is known as Infosys Limited. Infosys has a global footprint with over 50 offices in India, China, Australia, the Czech Republic, Poland, the UK, Canada and Japan. Infosys and its subsidiaries have 1, 41,822 employees as on September 2011. Infosys had always given the utmost importance to the role of employees in contributing to the company's success. This information is given in the form of supplementary statement. As per their opinion the fundamental dichotomy in accounting between human and non human capital is fundamental. The later is recognized as an asset and is, therefore, recorded in the books and reported in the financial statements, whereas the former is ignored by accountants. The definition of wealth as a source of income inevitably leads to the recognition of human capital as one of the several forms of wealth such as money, securities and physical capital.

6.1 The Model used for Valuation

Infosys used the Lev and Schwartz model to compute the value of its human resources. The evaluation is based on the present value of future earnings of the employees on the following assumptions:

* Employee compensation (salary packages) includes all direct and indirect benefits earned both in India and abroad

* The incremental earnings on the basis of age and group have been considered.

* The future earnings have been discounted at different rates in different years on the basis of cost of capital as explained in Table I

Table I Various Aspects Considered for Valuation of Human Resources by Infosys

Year	Title of HRA Information	Average Age in years	Model used For valuation	Discount Rate per annum	Criteria For discount	Determinants Of earnings	Treatment Of HR Cost Revenue/Capital	Other aspects considered
2006-07	Human Resource valuation	26 years	Lev & Schwartz	14.97 %	Cost of Capital	Direct & indirect benefits earned in India & abroad	Not Reported	Incremental earnings based on group/age
2007-08	Same as above	26 years	Same as above	13.32 %	Same as above	Same as above	Same as above	Same as above
2008-09	Same as above	26 years	Same as above	12.18 %	Same as above	Same as above	Same as above	Same as above
2009-10	Same as above	27 years	Same as above	10.60 %	Same as above	Same as above	Same as above	Same as above
2010-11	Same as above	27 years	Same as above	11.21 %	Same as above	Same as above	Same as above	Same as above

Source: Annual Reports of Infosys for 2006-07 to 2010-11.

6.2 Trends in Structure and Value of Human Resources of Infosys

The valuation exercise of Infosys is functional based. Employee strength of the Infosys group is divided into software professional and support as per the functional classification. The total employee strength

belongs to six age groups that are 20-25, 26-30, 31-40, 41-50, 51-60 and 60 years and above. As per the information disclosed in the annual reports of 2010-11, 59897 i.e. 45.8% employees belongs to the 20-25 age group and 35.4% to 26-30 that shows Infosys is a youthful company.

Table II Trends in Structure and Value of Human Resources of Infosys

Year	2006-07		2007-08		2008-09		2009-10		2010-11	
Category	No. of employee	Value Of HR (Rs. in crores)	No. of employee	Value Of HR (Rs. in crores)	No. of employee	Value Of HR	No. of employee	Value Of HR	No. of employee	Value Of HR
Software Professional	68156 (94.35)	53592 (93.28)	85013 (93.23)	92331 (93.43)	97349 (92.85)	95600 (93.60)	106864 (93.91)	106173 (93.72)	123811 (94.64)	122539 (90.70)
Support	4085 (5.65)	3860 (6.72)	6174 (6.77)	6490 (6.57)	7501 (7.15)	6533 (6.40)	6932 (6.09)	7114 (6.28)	7009 (5.36)	12566 (9.30)
Total	72241 (100.00)	57452 (100.00)	91187 (100.00)	98821 (100.00)	104850 (100.00)	102133 (100.00)	113796 (100.00)	113287 (100.00)	130820 (100.00)	135105 (100.00)

Source: Annual Reports of Infosys for 2003-04 to 2010-11.

The number of software professional increased to 1,23,811 in 2010-11 from 68,156 during 2006-07. Though there is an increase in the number of employees during 5 year period but the %age of software professional in the total strength remains almost unchanged i.e. 94.35% in 2006-07 and 94.64% in 2010-

11. The human resource value of software professional increased from 53,592 crores (2006-07) to 1,22,539 crores (2010-11). This increase is due to the increase in the number of employees mainly. The fall in the discount rate from 14.97% (2006-07) to 11.21% (2010-11) may also be one of the reasons for the increase in

value of human resources. The support staff constitutes 5.65% of the total strength in 2006-07 whereas in 2010-11 this proportionate is 5.36%. The value of human resources of supporting staff is Rs.7114 crores for 6932 employees in 2009-10 and it increases to Rs.12566 crores for 7009 employees in 2010-11. From the total column we can see that the total value of human resources showed an upward trend from 2006-07 to 2010-11 and same trend is followed by the number of personnel during this period. Infosys is a people oriented business. They added 43120 employees in 2010-11 on gross basis (net 17024) from 27639 (net 8946) in the previous year's as per the details given by Infosys in their annual report of 2010-11 under the head 'people'. The statement also shows that they added 15883 laterals that year against 4895 in the previous year. The education index of employees has gone up substantially to 343407 from 296586. This reflects the quality of their employees. The employee strength of Infosys comprises people from 88 nationalities as on March 31, 2011.

Attrition was 17% for the year 2011 compared to 13.4% in the previous year.

6.3 Productivity and Performance Ratios of Human Resources of Infosys

The human resource value data provided by the human resource accounting system when considered along with the traditional accounting data affects various accounting ratios. With the help of valuation of human resources a total picture regarding the resource position of an organization can be perceived. In Table III, an attempt has been made to analyze the productivity and performance of the human resources of Infosys by selecting a few parameters such as value per employee, value added per employee, value added to human resources, value per employee to value added per employee ratio, human resource value to total resources and profit before tax to human resources. These ratios for a five year period from 2006-07 to 2010-11 have been calculated.

Table III Productivity and Performance Ratios of Human Resources of Infosys

Year Ratios	2006-07	2007-08	2008-09	2009-10	2010-11
Value per employee (Rs crores)	.80	1.80 (35%)	.97 (10.19%)	0.99 (2.06%)	1.03 (4.04%)
Value added per Employee (Rs crores)	.16	.16 (0.0%)	.18 (12.5%)	.18 (0.0%)	.19 (5.56%)
Value added/HR (Rs crores)	.20	.15 (-25%)	.19 (26.67%)	.18 (-5.26%)	.18 (0.0%)
Value per employee/ Value added per Employee (No of years)	5.00	6.75	5.11	5.21	5.42
HR/Total Resources	93%	95%	94%	94%	94%
Profit before tax/HR	7.19%	5.16%	6.57%	6.60%	6.53%

Source: Annual Reports of Infosys for 2006-07 to 2010-11.

The value of human resources per employee shows an upward trend during the period of study i.e. 2006-07 to 2010-11. It has increased 1.29 times during this period. The value per employee during this five year period showed an increasing trend over the previous year but the highest increase was recorded during 2007-08 over the last year i.e. 35%.

The value per employee increased at the rate of 4.04% over the last year during 2010-11 whereas there is

5.56% increase in value added per employee during this year over the last year. This shows that during this period of one year employees contributed more to the organization than the rate at which the organization has compensated them in the form of salaries and the other benefits (since value per employee has been calculated on the basis of salary). During other years these two ratios show a mixed trend. In 2009-10 the % increase in value per employee over the last year was recorded at

2.06 whereas there is no change in the value added per employee. These ratios showed a mixed trend of variation over the period of study. The rate at which the value added generated by its human resources is being capitalized in relation to investment made by Infosys in such resources, has gone down from Rs.0.20crores (2006-07) to Rs. 0.18 crores (2010-11). As a result there is a slight change in the number of years it takes to recover the investment made in human resources. It has increased from 5 years to 5.42 years.

The ratio of human resources to the total resources showed that human resources constitute a major portion in the total resources as Infosys is a knowledge intensive organization rather than capital intensive. The ratio of profit before tax to human resources showed a mixed trend during the period of study. The ratio of profit before tax to human resources was 7.19% in the year 2006-07 and it decreased to 5.16% in 2007-08 which is an indication of decreased productivity of human resources. The same is the case for the year 2009-10 to 2010-11.

6.4 Evaluation of Human Resource Accounting System

The company uses Lev and Schwartz Model for valuation of its human resources and discloses this information under the heading 'additional information for investors'. The company provides additional information for intangibles even though it is not mandate by law but they believe that it will enable investors to make more informed choices about their performance. Infosys uses the Lev and Schwartz Model for the valuation of its human resources and this model has inherent limitations. A review of the system highlights that the valuation process has not considered the possibility of an employee leaving the organization before the retirement. It also ignores the service states of each individual. Infosys not only value its human resources but the Balance Sheet including intangible assets is also prepared for the purpose of information to investors. Intangible assets including human resource value are shown on the asset side of the balance sheet and capital reserve on liability side is created for the same amount for the brand value and human resource value. The company also makes intangible assets score sheet. Infosys disclosed maximum information related to HRA in annual reports. On the whole the human resource accounting system of Infosys is quite detailed.

VII. CONCLUSION

In India many organizations introduced the system of HRA but the number of those is very low. In spite of the benefits of HRA many organizations stopped reporting HRA information. BHEL that was pioneer in the introduction of HRA in India and R.G. Barry Corporation in the USA both stopped valuing human resources. Human Resource Accounting has a great potential in the modern age of professionalization particularly in the case of labour intensive service industry where human resource constitutes prime resource. HRA information thus would be of immense

help in decision making both for internal and external users. Therefore organizations should adopt HRA system.

The conceptual thinking about valuation of human resources is still in a developing stage. No model of HRA is accepted by the accounting bodies all over the world. The models devised so far for valuation of HRA have been developed in the USA taking into consideration the prevailing environment. Most of the companies are using the Lev and Schwartz model with or without modifications as per their convenience. Considering the significance of human resources in knowledge based sectors initiatives should be taken by the government along with other professionals, researchers and accounting bodies both at the national and international levels for the measurement and reporting of such valuable assets. Researchers should come forward to review the models as per the requirements of our country.

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