

Periodic Research

An Empirical Study on HRA Practices in Indian Organization: Special Reference to Infosys



Sonam Mishra

Research Scholar,
Deptt.of Business Administration,
Deen Dayal Upadhyay Gorakhpur
University, Gorakhpur, U.P.

Abstract

Recently we witnessed a global transition from manufacturing to service base economies. In Manufacturing organization the physical asset likes plant, machinery, material etc. are key of success. In service industry the company total worth depends mainly on the skills, knowledge and value added of its employees. The success of these organizations is totally depends on the quality of their human resource and their knowledge, skills, competence, motivation and understanding of the organizational culture. Hence, it is imperative for the firm to understand the importance of the human and therefore record it in the books of accounting. In present, human is at center point for manufacturing, Trading or Service firms.

Human Resource Accounting (HRA) means accounting for people as original resources. It is the measurement of cost and value of people for an organization. It is also a way of thinking about the management of people in formal organizations. Knowledge workers are important resources for the typical modern business firms. With the growing complexities of business organizations, the need and importance of competent people is increasing continuously. Yet financial reporting ignores such resources. This paper throws light on the concepts of human resource accounting. It includes an introduction to the concept of HRA and various models, which have been adopted by an Infosys to give information of human resource in their annual Reports. An attempt has been made in this paper to evaluate the HRA practices of Infosys limited (IL) as well as its usefulness in HR decision. Some useful suggestions have also been provided to improve the HRA practices of IL, which will ultimately contribute to ensure the bright future of HRA in India.

Keywords: Human Resource Accounting, Infosys, Human Assets.

Introduction

Human Resource accounting comprises of three words: Human, Resource and Accounting. So starting with Human or man, it is such a important buzzword it today's knowledge based marketplace which is also a critical path of a big firm. A firm success is totally depends upon their manpower who are skilled and talented, on which the success and failure of any organization depends. It is not a new word for the society in fact human are more classified as a resources.

Here Comes Resources

Human is said to be as resources because they are holding the central position of the organization. A good chunk of funds are reserved for the human as to make them resources. The human resource is the main player of success tales. To measure the value of human resource can assist organization in accurately documenting their assets.

Here Come Accounting

So human resources are now on the asset side. It is the report which delivered the investment made in human resource.

Human resource accounting in worlds accounting for the firm's management and employees as human capital which provide future benefits. Keeping on asset side also oppose to the traditional accounting approach which related to costs as company expenses in human resources that reduce profits in income statements of any company.

The main objective of HRA is to make the management easy of getting the information of cost and value of human resources which also

Periodic Research

HRA Information Disclosed by Some of the Companies

Name of the Organization	HRA Introduced in the Year	Model	Discount Rate (in %)
BHEL	1973-74	Lev & Schwartz model	12
SAIL	1983 – 84	Lev & Schwartz model with Some refinements as suggested by Eric.G. Flamholtz & Jaggi and Lev	14
MMTC	1982 – 83	Lev & Schwartz model	12
ONGC	1981-82	Lev & Schwartz model	12.25
NTPC	1984-85	Lev & Schwartz model	12
INFOSYS	1995-96	Lev & Schwartz model	12.96
	2006-07	Lev & Schwartz model	14.97

raise enrich the quantity and quality of goods and services. It's not any new phenomena to today's knowledge base society.

It is a continuous process that helps the organization in decision making. From classical economist to the modern human capital economist it is a well known concept because it deals with the one of the 4M's which are material, machinery, money and men. So, men are treated as human resource. The HRA measurement process helps to know the rise in the human capital is paramount to the firm's short and long term productivity. That is the reason, it become phenomenon among the Indian corporate world to disclose human resource related information in their annual statements.

During 1972-73, a leading public enterprise BHEL had promulgated it. After that was adopted by other leading public and private sector firms like Hindustan Machine Tools Ltd. (HMTL), Oil and Natural Gas Corporation Ltd.(ONGC), NTPC, Cochin Refineries Ltd. (CRL), Madras Refineries Ltd.(MRL), Associated Cement Company Ltd.(ACC) and Infosys Technologies Ltd.(IL) in the subsequent years.

Local to Global Shift of Human Resource Accounting

In today's scenario the 21st century demands manpower, countries those are rich in labor quality are the big market of dominant technology as to rule the world for example china and Japan. China and Japan are the most powerful leaders in technology advancement which results in the performance and quality workforce. Therefore the whole world started taking human resource as the real investment into business ventures to maintain the success waves. Firm like INFOSYS, Steel Authority of India Ltd, DR.REDDY'S and Bharat heavy Electrical Ltd (BHEL) are all time cash cows the profit makers due to their known renowned value and recognized quality of labor. The knowledgeable and quality workforce can easily stand against any business storm and handle effectively.

Meaning of Human Resource Accounting

HRA has been defined by American Accounting Association's committee as "the process of identifying & measuring data about human resources & communicating this information to interested parties". Stephen knauf defined HRA as "The measurement & quantification of human organizational inputs such as recruiting, training, experience & commitment."

According to Eric. G flamholtz, " HRA represents accounting for people as an organizational resource. It is the measurement of the cost & value of people for the organization".

Hence, it can be said that, it is the process of developing financial assessment for people within organization & society and monitoring of these assessment through time, it deals with.

Although HR valuation has important implication for external financial reporting, in the contemporary economic scenario valuing HR has been greater significance for internal HRM decision.

Human Resource Valuation Approaches

Due to the importance of Human resources, it have been provided much priority in the present service sector. Various models are suggested to quantify the talent, skills and knowledge of employees. Some of the models are:

Historical Cost Method

Historical cost method was developed by William C.Pyle. A leisure footwear company (R.G.Barry Corporation) in Columbus, Ohio, USA adopted in 1969. It calculates actual cost incurred on hiring, selecting and training and development of human resource which is equal to the cost of workforce. According to this model the economic value of HR increases overtime and they gain experience but the capital cost of HR decreases through amortization.

Replacement Cost Model

This approach measures the cost of replacing an employee with a new employee of equivalent ability and efficiency. Individual replacement cost and positional replacement cost are the two pillars of this method. Replacement cost includes cost of recruiting, selecting, training and development and familiarization cost are account in individual replacement cost. Data from this method could be useful to decide whether to dismiss or replace the staff. This method may also biased estimate because more cost could be incur to replace an employee by an inefficient firm.

HRA in Practice at Infosys

As per the latest balance sheet each employee at Infosys is worth over Rs 1cr. In 2010, S Gopalakrishnan, Ex- CEO and MD of Infosys had said "A company's annual report shows the financial parameters. It only looks at the tangible assets, but we also wanted to inform the shareholders about intangible assets. Our employees are our value, you have to look at several things like the age of the employees, the revenue per employee and the exchange rate".

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

1. An employee's salary package (earned in India or other nation, all benefits).
2. The additional earnings on the basis of age and group.

Infosys, The only Indian tech firm to value its 'intangible assets', has valued each of its 1.3 lakh employees based on their earning potentials till retirement. Intangible assets are nonmonetary assets that are created through time and effort like brand value, intellectual property and human capital. Infosys started this practice in 1996. Based on employee's average age Infosys divided all employees into five groups and calculated average compensation.

HRA - The Benefits and Hurdles

There are diverse benefits of adopting HRA which helped an organization to take managerial decisions based on the availability and the necessity of human resources. It also provided true pictures of the organization and potential. It also helped to improve the quality, channelize the available skills, talents, knowledge and experience of their employees more efficiently and eliminate the negative effects of redundant workforce.

Following important key could be achieved by implementing and valuing HRA:

1. Per employee cost
2. Human capital investment, amount of wealth, value added and return ratio
3. The net profit created by each employee for an organization
4. The ratio of salary paid (In India and Foreign Nation) to the total revenue generated
5. Average salary and group of each employee
6. Employee absenteeism rates and effect on company performance
7. Employee turnover and retention rate.

As per the Mohandas Pai, Ex- CFO Infosys *"Real assets will not appreciate much as businesses get commoditized. Innovation and intellectual power are going to be the key to the future."*

As per the Samrat Gupta, MIS Manager (DSQ Software Ltd)

"Employees are the most valuable resources of comparison in the service (software, banking, management consultancy, etc.) sector. Like all other resources of the company, the employees possess value because of providing future services."

Valuing Human Resources

Infosys Technologies (Infosys) became the first software company in the FY 1995-96 to value its human resources in India. The company used the Lev & Schwartz Model and valued its human resources assets at Rs 1.86 bn. Infosys had always provided employee friendly environment and given huge importance to the role of employees in contributing to the success of company. Analysts felt that human resources accounting (HRA) was a step further in Infosys' focus on its employees. Narayana Murthy, the then chairman and 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."

Before 1990's, HRA practice was not in demand in India. Public sector firms like BHEL and SAIL had promulgated it. It was only in the mid-1990s, that the concept gained popularity in India after Infosys started valuing its employees. By 2002, HR accounting had been practiced by leading IT companies like Satyam and DSQ and leading manufacturing firms Reliance Industries.

HR managers were quick to respond on the above developments by stating that more and more organizations had now started to realize the importance of skilled workforce. They felt that to be successful in highly competitive markets, companies require to continuously improve the level of performance of their workforce.

HRA enabled companies to understand whether the skill sets of their human capital were appreciating or not. R. Krishnaswamy, an actuarial accountant, said, "The value can be used internally by an organization to make comparisons from unit to unit, from year to year, as well as within its industry." Once HRA was introduced the analysts also realized that HRA was an investor-friendly disclosure which assured stakeholders that the right human capital to meet its future business requirements.

Background Note

Human Resource was earlier known as personnel's and they never treated as important as to keep them on the asset side of the balance sheet, due to LPG era these personnel's departments get noticeable and these assets are known as tangible and intangible assets of an organization. In the balance sheet the Tangible assets are all the physical assets as such plant and machinery, cash, inventories, bank balance, etc.

Intangible assets are all the appearances which are not physical but valuable such as goodwill, brand value, credibility and human assets of a company. The human assets includes competency, knowledge, skills, ability, capability and talents of employees in an organization.

In the past, there was no such method to define parameters to evaluate human assets. Also, Companies considered all the investments related to employees, salary as well as recruitment and training costs as expenditures. They never treated human resources as an asset. It was also in consideration that the company stakeholders may not accept the concept of placing a monetary value on human resources.

In early 1990s, when there was a major demands in employment in service, technology and knowledge base sectors then the importance and value of human assets started to be recognized. The company's success of any service and knowledge-based company was its skilled and intellectual workforce. In all the above firms the shareholder value has a remarkable change due to human resources.

Objectives of the Study

This paper is an attempt to achieve the following objectives:

1. To evaluate the HRA practices adopted by Infosys Limited (IL).
2. To make analysis of the HRA data provided by IL for evaluating its usefulness in HR decision.

Review of Literature

Study Reference	Findings
Rensis Likert	In the long run the long term planning is required which was done by strong pressure on human resource accounting. It as a qualitative variable which results in great benefits.
American Accounting society	HRA as the process of identifying, measuring data about human resources and communicating this information to interested parties
Stephen Knauf	HRA is the measurement and quantification of human organizational inputs like recruiting, selecting, hiring, training, experience and communications
Shultz (1960), William Pyle (1967), Flam Holtz (1973), Kenneth Sinclair (1978) and Dr Roa (1983)	They contributed appropriate methodology and correct methods for finding out the value of the employee to the organization.
Tomassini (1977)	According to Tomassini, accounting has special position and plays an important role in economic, trade and manufacturing development.
Carme, Barcons (1995)	As per Carme, the four factors of production man, money, material and land in which the last three of them are amenable to conventional accounting but the first one in which the human resource has not been subject to such accounting.
Jan Bratton, 2003	The potential usefulness of HRA information would seem to be even greater for the external decision-makers than for the company's management.
Kodwani & Tiwari, 2007; Roslender, 2004; Ramakanta & Khatik, 2003; Lev, 2001; Rao, 1993	HRA is the source of important information for investment decision purposes.
Jawahar Lal, 2009	As his view, human resource data in published financial statements would, in all likelihood, make such statements for more meaningful in predicting future performance which is, the principal concern of investors.
Jasrotia, 2004; Ramakanta, & Khatik, 2003; Rao, 1993; Gupta, 1991	Some of the companies that applied human resources accounting recently in one way or the other include the R. G. Barry Corporation, BHEL, Infosys Ltd and Reliance Industries in India and other companies in the United States, Canada and Australia.
Samarat Gupta, MIS Manager, DSQ Software Ltd	All other resources in the company, the employees possess value because of providing future services.

Research Methodology

To achieve the objectives the scope of the present study is restricted to the analysis of the HRA practices of IL for the four years under method of valuation, disclosure of HRA, form of presentation and usefulness in human resource decision. Computation of the value of human resources in IL has not been enquired into. This study is based on the secondary data collected from the annual reports and websites of IL for the FY 2009-10 to 2011-12. The findings of the analysis have been abstracted with the help of various mathematical and statistical tools like correlation. Finally some suggestions have been made to improve the HRA practices of IL. The present study will be helpful to develop the insight of HRA in various interest groups as well as to improve the HRA practices of IL. The major limitation of this study is the lack of adequate corporate disclosure practices in India.

Models of Human Capital Valuation

Many models have been created to value human capital. Some are based on historic costs while some are based on future earnings. But each has its own limitations and one model has proved to be more valid than other. Although the Lev and Schwartz model has been the most widely use model for its ease of use & convenience.

The Lev & Schwartz Model

The Lev and Schwartz model states that the human resource of a company is the summation of value of all the Net present value (NPV) of expenditure on employees. The human capital embodied in a person of age 'r' is the present value of his earning from employment.

Under this model, the following steps are adopted to determine HR Value:

1. Classification of the entire labour force into certain homogeneous groups like skilled,

unskilled, semiskilled etc. and in accordance with different classed and age wise.eg. In Infosys the classification is based on software professionals & support staff etc.

2. Construction of average earning stream for each group. For example, at Infosys Incremental earnings based on group/ age have been considered.
3. Discounting the average earnings at a predetermined rate in order to get present value of human resources of each group.
4. Aggregation of the present value of different groups which represent the capitalized future earnings of the concern as a whole,

$$Vr = \frac{I(t)}{[(1+r)^{(t-r)}]}$$

Where, Vr = the value of an Individual r years old

I (t) = the individual's annual earnings up to retirement

t = retirement age

r = a discount rate specific to the cost of capital to the company. Critical appraisal of the Lev & Schwartz model

1. It is essentially an input measure .It ignores the output i.e. productivity of employees.
2. Service state of each individual employee is not considered.
3. The training expenses incurred by the company on its employees are not considered.
4. The attrition rate in organization is also ignored.
5. Factors responsible for higher earning potentiality of each individual employees like seniority, bargaining capacity, skill, experience etc. that may cause differential salary structure are also ignore.

Finding of the Study

With a view to evaluate the HRA practices of IL the data collected from the website and annual reports for the three financial years have been analyzed under four major heads namely method of valuation, disclosure of HRA, form of presentation and usefulness in human resource decision-making. A summary of the findings are categorized under four methods:

Method of Valuation

IL has adopted Lev and Schwartz Present Value of Future Earnings Model for valuing its human resources on the following assumption:

1. Employee compensation includes all direct and indirect benefit earned in India and foreign nation.
2. The incremental earning based on group/age have been considered
3. Future earnings have been discounted at the cost of capital of 10.6%, 11.1% and 12% in the FY 2009-10, 2010-11 and 2011-12 respectively.

The Lev and Schwartz model adopted by IL has the merit of objectivity in the valuation of human resources. Well, the limitations of this model adversely affect the correct valuation of HR in IL. Moreover, the rate of discounting future earnings of employees is changing year to year. It is a mathematically proved fact that high rate of discount tends to decrease the value of HR and low discount

rate presents the increased valuation of HR. This change in discount rate in each year makes the HR data in compatible and presents misleading valuation of HR in IL.

Disclosure of HRA

It was found that IL has disclosed the valuation of HR for all the years continuously without gap. IL has disclosed HR valuation in its annual report in the form of supplementary statement as well as a part of 'balance sheet including intangible assets'.

Form of Presentation

It was found that IL has presented HRA information along with comparative figures of previous year. Further, the number and value of human resources have been shown category wise only and not age wise. Some useful HR ratio have also been shown but the depreciation or appreciation in the HR value has not been reported.

Usefulness in Human Resource Decision

The HRA data provided by IL include the information regarding the number, cost and value of human resources. Some HR ratios have also been provided.

An analysis of these information is as under:

1. It was found that in the year 2008-09 the total number of employees was 1,04,850 that increased to 1,41,788 in 2011-12 i.e. an increase of 35.22% during 2009-2012. The number of software professional and support staff has increased by 45.6% and 9.39% respectively. It is clear that the number of HR in IL is continuously increasing (See Exhibit)
2. Total employee cost has increased from Rs. 11405 crore in 2009 to Rs. 14,856 crore in 2011 while the cost per employee was found Rs. 0.108 crore, Rs.0.106 crore, Rs. 0.113 crore, Rs in the accounting years 2008-09, 2009-10, 2010-11 respectively. It is obvious that though total employee cost has increased, cost per employee has decreasing and increasing trend.
3. As far as total human resource value is concerned, it has increased from Rs.1,02,133 crore to Rs. 1,25,717 crore during the year 2008-09 to 2012-13 i.e. an increase of 23%. The value of human resources in each category shows continuous increase. However, this increase in HR value, to a large extent, due to decrease in discount rate used for valuation of HR under Lev and Schwartz model
4. IL has also disclosed some human resource ratios. In the analysis of these ratios, it was found that the value of human resources per employee has increased from Rs. 0.9 crore to Rs. 1.03 crore i.e. an increase. Employee cost to human resource value has been constant 0.2 These two ratios indicate that the efficiency of human resources of IL has improved because of producing higher value at lower cost. (See Exhibit).
5. There is a positive high correlation between total income and total employee cost of IL. It indicates that the performance of human resources in IL is

Periodic Research

very good. In short IL provides some useful HRA data regarding the number and cost of human resources but the change in discount rate in each year makes HR value and HR ratio data in compatible and misleading which affect the HR decision adversely.

A fundamental dichotomy in accounting practices is between human and non-human capital. As a standard practice, non-human capital is considered as assets and reported in the financial statements, where as accountants mostly ignore human capital. 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.

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

1. Employee compensation includes all direct and indirect benefits earned both in India and overseas.
2. The incremental earnings based on group / age have been considered

3. In FY 2009-10, The future earnings have been discounted at the cost of capital of 10.60% (previous year – 12.18%). In FY 2010-11, The future earnings have been discounted at the cost of capital of 11.21% (previous year 10.60%). In FY 2011-12, it was 12%.

The Table Showing the Value of Human Resource in Infosys

The method is as follows:

1. All the employees of Infosys were divided into five groups based on their average age and average compensation was calculated.
2. Using an average rate of increment, Infosys also calculated the compensation of each employee at retirement.
3. The increments were based on industry standards, the employee's performance, value added and productivity.
4. Finally the total compensation of each group was calculated. This value was discounted at the rate percent per annum which was the cost of capital at Infosys to arrive at the total human resources of Infosys.

Balance sheet of Infosys with the Human Resource Value is as follows (in Rs. crore, unless stated otherwise)

EXHIBIT: Analysis of HRA Practices of IL

	2009	2010	2011	2012
Employees (no.)				
Software professionals	97,349	1,06,864	1,23,811	1,41,788
Support	7,501	6,932	7,009	8,206
Total	1,04,850	1,13,796	1,30,820	1,49,994
Value of Human Resources				
Software professionals	95,600	1,06,173	94,209	1,22,082
Support	6,533	7,114	9,203	10,466
Total	1,02,133	1,13,287	1,03,412	1,32,548
Total income	21,693	22,742	27,501	33,734
Total employee cost	11,405	12,085	14,856	18,340
Value-added	19,073	20,937	25,031	30,900
Net profits excluding exceptional items	5,988	6,218	6,823	8,332
Ratios				
Value of human capital per employee	NA	NA	0.75	0.84
Value of human resources per employee	0.97	1	1.03	NA
Total income / human resources value (ratio)	0.21	0.2	0.2	NA
Employee cost / human resources value (%)	11.2	10.7	11	NA
Value-added / human resources value (ratio)	0.19	0.18	0.19	NA
Return on human resources value (%)	5.9	5.5	5.1	NA

According to this report the worth of each Infosys employee in **2011 is 75 lakhs** and **84 lakhs** in 2012.

Notes : The figures above are based on IFRS financial statements.

This Balance Sheet is provided for the purpose of information only. We accept no responsibility for any direct, indirect or consequential losses or damages suffered by any person relying on the same redundant workforce. It also helped to provide good environment to the employees at workplace.

Benefits Experienced by Infosys by Valuing Its Human Resources

There are diverse benefits of adopting HRA which helped an organization to take managerial decisions based on the availability and the necessity of human resources. It also provided true pictures of the organization and potential. It also helped to improve the quality, channelize the available skills, talents, knowledge and experience of their employees more efficiently and eliminate the negative effects of

Following important key could be achieved by implementing and valuing HRA:

1. Infosys could determine whether its human asset was appreciating over the years or not. Any company's success is totally depends on knowledge of the employees.

2. The company could also use this information internally to compare the performance and productivity of employees in various departments.
3. HRA also helped Infosys to decide the compensation of employees. The company ensured that it compensated each employee according to his / her net worth.
4. HRA also helped Infosys to identify and retain valuable employees.
5. It helped organization to take managerial decisions based on the availability, knowledge, skills and the necessity of human resources.
6. When human resources get quantified it gave Infosys investors and other clients true insights into the organization and its future potential. It restored faith amongst shareholders.

BY adopting HRA the following information could be obtained

1. Per employee cost
2. Human capital investment, amount of wealth, value added and return ratio
3. The net profit created by each employee for an organization
4. The ratio of salary paid (In India and Foreign Nation) to the total revenue generated

To sum up, Based on the person's specialized skills, knowledge, capabilities experience, etc HRA helped Infosys to identify the right person for the right job.

Disadvantages of Evaluation of Human Capital

1. Companies use various HRA models and comparing two companies using two different models was difficult.
2. Companies could also misuse HRA to enhance their image .A company could use this image to prop up its image in the investors mind, and change assumption to keep the values positive.
3. There could be a concern of the creditability of the numbers reported.
4. The model was based on assumptions and was subjective. Hence figures could be totally ambiguous.
5. Some employees may be underestimated since a numeric figure did not clearly quantify what their true capabilities are.

Ethical Considerations

HRA cannot be considered an unethical to place monetary value on the part of an organization. Showing employees as 'assets and valuing them would show organization's true worth. Main agenda is if organizations consider their employees as assets then it is good practice to show their productivity and value added in the balance sheet. It also helps to boost the investor confidence in the organization and it would be consider as a great place to work like Infosys. In some cases it cannot be considered as an unethical practice because of false information provided by organization.

Conclusion

With new face in economic development which is relevant by innovation, communication and spread of digital technologies of organization which can not be ignored by intellectual capital, rational

capital and organizational capital that led to emerging importance. Many firms in India has started measuring their intangibles. Still the intellectual capital is in its beginning stage only. This is the reason why Indian firms are way behind from foreign Nations. The gap of intellectual capital and its quality can not be denied.

Only few firms actually understand its meaning while using it as an important tool and valuing in the balance sheet. The measure role is played by the successful practices done by human resource in any public and private sector companies. This paper has identified that any company total worth as in terms of tangible and intangible assets but they should also make their employees to feel like employee friendly companies. The companies who value their employee and feel proud to say so are the companies who are holding most of the market shares.

References

1. <https://www.infosys.com/investors/reports-filings/Documents/additional-information-2011-12.pdf>
2. Likert, R. 1967, 'The Human Organization', New York, USA: McGraw – Hill.
3. http://www.ibscdc.org/Case_Studies/Human%20Resource%20and%20Organization%20Behavior/Human%20Resource%20and%20Organization%20Behavior/Human%20Resources-Infosys-Management%20Case%20Studies.htm
4. Rao, D. P. 1993, 'Human Asset Accounting: An Evaluation of the Indian Practice', Journal of Management, Vol. 22, Administrative Staff College of India, pp. 1-3 and 22.
5. <http://thecommercepedia.blogspot.com/2012/05/case-study-on-human-resource-accounting.html>
6. Judson, R.: "Do Low Human Capital Coefficients Make Sense? A Puzzle and SomeAnswers", Federal Reserve Board, June 1995
7. https://www.infosys.com/investors/reports-filings/annual-report/annual/Documents/AR-2011/ai_13.html
8. Usher, D.: "Welfare Economics and Public Finance", Edward Elgar, Hants, 1994
9. Jawahar L. 2009, 'Corporate Financial Reporting, Theory and Practice Cases', University of Delhi, Taxmann publications, pp 280-302.
10. Jan Bratton, & Jeffrey G. 2003, 'Human resource management, Theory and practice', 3rd Edition, Palgrave MC. Millan, London.
11. Andrikopoulos, A. (2005). Using intellectual capital statements to determine valuedrivers and priorities for organizational change: a portfolio selection approach.
12. Knowledge Management Research & Practice 3 (3), 166.
13. Davis, K. (2009). Organizational Behaviour Human Behavior at Work. Grolier Business Library, USA. Pp591-593.
14. Roslender, R. & Fincham, R. 2001, 'Thinking critically about Intellectual Capital Accounting', Accounting, Auditing & Accountability Journal, Vol. 14, No. 4, pp. 383-399.

15. Harbison, F., C. A. Myers: "Education, Manpower and Economic Growth", McGraw-Hill, London, 1964.
16. Dwivedi, R.S. (2007). Personal Management - Management of Human Resource, Indian; Oxford & IBH Publishing Co. Pvt. Ltd.
17. Akinwale, A. (2010). Human Resources Management - All Overview. Lagos, Nigeria: Concept Publication.
18. Craft, J. & Birberg, L(2013): Human Resource Accounting, Perspective and Prospects .Management- A Book of Readings, Harold Knoontz and Cyril O. Daniel. McGraw Hill, USA.
19. Jorgenson, D. W.: "Productivity", MIT Press, London, 1995
20. American Accounting Association, 1973, 'Report of the Committee on Accounting for Human Resources', The Accounting Review, 48, pp. 6-11.
21. Brummet, R.L., Flamholtz, E.G. & Pyle, W.C. (1968a, April). Human resource measurement: A challenge for accountants. Accounting Review, 217- 224.
22. Flamholtz, E.G. 1971, 'A Model for Human Resources valuation: A Stochastic Process with service rewards', The accounting Review, pp. 70-72 Porwal, op. Cit, P. 480-85.
23. Jaggi, B. & Lau, H. S. 1974, 'Toward a Model for Human Resource Valuation', The Accounting Review, 49, April.
24. Lau, A. H. & Lau, H. S. 1978, 'Some Proposed Approaches for Writing Off Capitalized Human Resource Assets', Journal of Accounting Research, No. 16, pp. 80-102.
25. Ramakanta, P. & Khatik, S. K. 2003, 'Human Resource Accounting Policies and Practices : A Case Study of Bharat Heavy Electricals Limited, Bhopal, India', International Journal of Human Resource Development and Management, Vol. 3, No. 4, pp 285-296.
26. Tomassini, L. A. 1977, 'Assessing the Impact of Human Resource Accounting: An Experimental Study of Managerial Decision Preferences', The Accounting Review, pp. 904-914.
27. Infosys annual financial statement 2011-12
28. Journal of Accounting Review. Jaipur. Volume II. 1991
29. www.infosys.com
30. Gupta, D. K. 1991, 'Human Resource Accounting in India: A Perspective', Administrative Staff College of India Journal of Management, Vol. 20, No. 1, pp. 9-10.
31. Kodwani, A. D. & Tiwari, R. 2007, 'Human Resource Accounting – A New Dimension', A Paper Presented at the Canadian Accounting Association (CAAA) Annual Conference, January, 2007.