# CHAPTER 4
## REVIEW OF LITERATURE

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Title</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Introduction</td>
<td>82</td>
</tr>
<tr>
<td>4.2</td>
<td>Studies on different models of human resource accounting and its applications</td>
<td>82</td>
</tr>
<tr>
<td>4.3</td>
<td>Studies on role of human resource accounting in context of performance and decision making, information reporting and disclosure of human resource accounting</td>
<td>91</td>
</tr>
<tr>
<td>4.4</td>
<td>Human resource accounting in Indian corporate sector</td>
<td>99</td>
</tr>
<tr>
<td>4.5</td>
<td>Development of human resource accounting</td>
<td>102</td>
</tr>
<tr>
<td>4.6</td>
<td>Studies on teachers evaluation</td>
<td>103</td>
</tr>
<tr>
<td>4.7</td>
<td>Other studies related to human resource accounting</td>
<td>104</td>
</tr>
<tr>
<td>4.8</td>
<td>Research gap</td>
<td>108</td>
</tr>
<tr>
<td>4.9</td>
<td>References</td>
<td>109</td>
</tr>
</tbody>
</table>
CHAPTER 4
REVIEW OF LITERATURE

4.1 Introduction:
The objective of this chapter is to review literature used for the purpose of present research work. The chapter deals with various books, magazines, newspapers and journals, which are instrumental in reviewing the background knowledge of the research topic. Further review of literature also helps to identify the concepts related to research topics and potential relationships between them. It also helps to identify appropriate methodology and research design of the study. In addition to this, it helps to identify data sources used by researchers and learn how others structured their reports. It also tries to find out some gap in earlier literature and provide a new insight for conducting new enquiries. The review of literature is done as under.

Review of literature was classified in following categories for better understanding and presentation. Some of the literatures related to studies on different models were already discussed in 3rd chapter Human Resource Valuation Models.

4.2 Studies on different models of Human Resource Accounting and their applications:

1. Gillespie, J. F., Leininger, W. E., & Kahalas, H., (1976) made an attempt to integrate two different disciplines that is, manpower planning and staffing and Human Resource Valuation, which according to them did not receive much consideration. They developed a model that was operationalized in a large certified public accounting firm. They applied Markov Model and constructed transition matrix for each of the five years to determine if the stability existed. The corresponding level of achievement i.e. junior, senior, manager or partner moving from one state to another were defined as transition states. There were two absorbing states were considered first junior, senior or manager leaving the firm and second, partner leaving the firm. With the help of this model, the
expected economic value of professional staff was determined. Aggregate value was ascertained by multiplying the average salary with number of staff at particular level. This aggregate value was then multiplied by discounting rate to determine the economic value. Thus, by using transition matrix, total present value of the staff was determined in two different cases; one, if they leave at the same level and, if they leave the firm as partner. According to authors, this model permits the use of any number of transition states and absorbing states.

2. Khatri, P. V., & Rani, R., (2012), in their paper measured value of human resource by applying Acquisition Cost Model proposed by William C. Pyle and Lee Brummet. Revised Profit and Loss Account and Balance sheet with Human Resource Value mentioned in it as asset of the organization were presented. By incorporating Human Resource Value in financial statements, the author, in this study, tried to fill some of the existing gaps regarding the valuation and reporting of the prime assets of an enterprise viz., the human assets.

4. Sirisetti, S., & Mallesu, H., (2011) also discussed different models of Human Resource Accounting in India. In addition to the Cost Based Approach and Economic Value Based Approach and methods under these approaches, researchers further discussed advantages and limitations of Human Resource Accounting. Among different methods of Human Resource Accounting, researchers stressed on popularity of Lev and Schwartz methods of valuation of human resource which is based on Economic Value Approach of Human Resource Accounting.

5. Theeke, H. A., (2005) proposed a new accounting and reporting approach that is compatible with current accounting methods. This paper presents the rudiments of a liability approach to placing people on the balance sheet. In this paper, researcher divided the history of Human Resource Accounting into three phases that is the beginning phase, mid-term entrants and the recent entrants. In the first phase of journey of Human Resource Accounting, researcher mentioned the pioneer research work done by Roger Hermanson (1964), R. M. Likert, Eric Flamholtz, William Pyle and R. Lee Brummet. According to researcher, the mid-term entrant in the field of Human Resource Accounting were Cascio with the fourth edition of his book Costing Human Resources (Cascio, 2000), Schmidt et al (1979) with their utility approach for valuing human resource, and Boudreau who has published multiple articles on the subject. Other contributors to this field were Hunter and Schmidt and many others. The recent entrants of this field were Karl Erik Sveiby, Leif Edvinsson, Baruch Lev and Thomas Stewart. Some of these researchers have developed their own model of Human Resource Valuation, whereas, some of them have given their views on different approaches and methods of Human Resource Accounting. Thus, by stating the failure of these approaches (cost and value based), researcher in this paper suggested his own approach that is Liability Approach of Human Resource Accounting. Researcher advocated that Human capital is the liability for the enterprises hiring the employees and workers are the owner of human capital, which they loan to companies. He gave detailed justification of Liability Approach of Human
Resource Accounting by explaining the liabilities from demand deposit, liability from leases and contingent liabilities. In this paper, researcher made an attempt to explain the similarity between the characteristics of human resource capital as liability and liabilities from demand deposits and lease and contingent liability. Further, researcher concluded his paper giving his opinion on contingency liability approach as most acceptable liability approach among three approaches of liability.

6. Kumar Mohanty, B., & Hiremath, V., (2011) discussed revenue approach to Human Resource Accounting. Researchers describe the Indian Scenario of Human Resource Accounting wherein they mentioned different Indian companies who adopted Human Resource Accounting and disclosed Human Resource Value in their annual reports. Researchers said in their study that Lev and Schwartz Model is followed by most of the Indian companies to compute human asset value. Further, researchers, in their study, gave detailed explanation of Lev and Schwartz model with the help of hypothetical example. Finally, researchers concluded that future acceptability to Human Resource Accounting as IFRS is allowing fair value representation of intangible assets. Researchers also suggested that Human Resource Accounting can be extensively used as internal information for control and development of human resources. This can be possible if efforts are made to make Human Resource Accounting is tailor-made for individual organization.

7. Akintoye, I. R., (2012) studied the annual reports of Oceanic Bank from 2002 to 2008 to determine the impact of human resource on effective financial reporting using investment in human capital, profitability and capital employed. Lev and Schwartz method was employed to measure the human asset value at Oceanic Bank. The variables in the study were total assets in which human asset was independent variable while profit and capital employed were dependent variables. The result of the study revealed that the use of Human Resource Accounting in the financial report results in effective and efficient use of the bank available
assets to generate sufficient earnings which ensures the survival and continuity of the bank.

8. Chandra, A. M., Danie, R. & Kishorebabu, N., (2012) in their research paper seek to explain the quantification of qualitative information of employees by adopting Human Resource Accounting approach. In this paper, Researchers covered different aspects of Human Resource Accounting that is, need, objectives and historical development. Further, researchers also stressed the need for Human Resource Accounting in India. Researchers also discussed the interest of different stakeholders in Human Resource Accounting. Researchers in this paper covered Cost Approach and Economic Value Approach of Human Resource Accounting. Further, researchers also describe the different models of HRA measurement. In this paper, researchers highlighted different companies who adopted Human Resource Accounting and different models which these companies adopted for valuation of human resource. Authors stated in their study the key ratios involving Human Resource Value as a component to ratio. Finally, paper was concluded stating that the main objective of financial statement accounting can be achieved only through adopting of a Human Resource Accounting approach. It will reveal the “true and fair view” of the financial statements and make suggestions of incorporations of intellectual capital value as an intangible asset and in capital investment decisions as well.

9. Badiyani, B. M., (2012) focused on the brief history and the popular models of assessing the value of human resources in the organization. In this paper, history of Human Resource Accounting was divided into five stages. Stage one (1960 to 1966), beginning of academic interest in Human Resource Accounting, second stage (1966 to 1971), development of various Human Resource Accounting models, stage three (1971 to 1976), the main focus was on problems of applications of Human Resource Accounting in various organizations. Stage four (1976 to 1980), in this stage the organizations were impressed with Human Resource Accounting but they didn't find it needful to invest big amounts in this
type of researches and the last stage five (1980 onwards) gained greater attention towards Human Resource Accounting. This resulted in the shift of focus from the academic application to the greater application of Human Resource Accounting to management. Researcher, in this paper, also covered different approaches and methods of Human Resource Accounting.

10. Gupta, A. and Mahesh, V., (2012) made an attempt to capture Human Resource Accounting in B-Schools. The main objective of their study was to understand the concept behind quantifying and accounting for human assets in an academic institution. Researchers used Net Present Value approach for evaluating human resource in B-schools. Researchers conducted survey to know importance and relative contribution of various assets towards revenue generation for institutions. Through this study, researchers revealed the fact that assets related to human resources are more important than the physical assets. Researchers concluded that academic institutions in general and B-schools in particular depend on the human and intangible assets more than physical and tangible ones, owing to their worth and potential to appreciate with time.

11. Syed, M. & Panuel, R. P., (2012) examined the Human Resource Accounting practices in banking sector of Bangladesh. Researcher found that the overall practice of Human Resource Accounting in banking sector was not satisfactory because most of the resource personnel didn’t have the clear concept of Human Resource Accounting. Most of the sample banks used Cost Approach or Traditional Accounting Approach for Human Resource Valuation. There is awareness about Human Resource Accounting at top management level but still banking sector in Bangladesh is long away from the proper practicing of Human Resource Accounting techniques. Researcher suggested Present Value Approach for quantification of human resource. According to researcher, disclosure of human resource information will bring transparency and will help banks to perform better.
12. Ogan, P., (1977) suggested the Human Resource Value Model (1976), which was operationalized in one of the large public accountant firm. Total 439 respondents from this firm were included in the study. The net benefit of the employee, that is, the difference between employee’s total cost and his expected benefit was adjusted for Certainty factor which was a product of two important determinants that is, probability of continued employment and probability of survival to arrive at Periodic Certainty Equivalent Net Benefit. This net benefit was further discounted by discounting rate to get the adjusted net present value patterns of the employees. This adjusted net present value was further converted into weighted net present value patterns for each employee using the inputs given by each individual’s evaluator. Employees total cost was calculated by taking employee’s future training and development cost and future salaries and wages. Employee’s expected benefit is a product of employee’s monetary value benefit potential and his performance index. Employees performance index include his efficiency index (based on individual’s experience, health profile, psycho motor ability and the complexity of the task) and standard work index (based on individual’s direct involvement in revenue producing work out of their available work time). Employee’s monetary value benefit potential is the maximum benefit that an organization can generate from the employee in a specific period of time. This value was computed by taking future salary of the employee for each period of his estimated useful life for the organization. This was further converted into employee’s hourly billing rate. Ogan further concluded that the data generated through this Human Resource Valuation Model is very useful for performance evaluation and Human Resource Value Accounting System.

13. Tomassini, L. A., (1976) proposed the structural framework for further development of behavioral Human Resource Accounting research based on the Contingency theories given by Luthan (1973). Luthan, the management scholar, applied behavioral science for better understanding and effective management of human behavior in organization. With the help of thirteen hypotheses, researcher proved the potential significance of this framework. Three important attributes
given by the research, which form this contingency framework, are Information attributes, Organizational Attributes and Individual Attributes.

14. Grove, H. D., Mock, T. J., & Ehrenreich, K. B., (1977) evaluated the different methodologies available for measurement of human resources through its application to Human Resource Accounting. In this paper, researcher briefly discussed different models based on input attributes such as acquisition cost attribute model, replacement cost model, discounted wages and cash flow model, Dollarized attitude model. Researcher also discussed about output attributes such as Opportunity Cost model, Market Value model, Discounted Earning Flow model, Economic Value models etc. After a detail evaluation of these methodologies, further researcher proposed a strategy or a procedure to analyze the Human Resource Measurement system.

15. Frantzreb, R. B., Landau, L. L., & Lundberg, D. P., (1974) examined in their paper, the usefulness of Human Resource Accounting Information and Selection of Valuation model. In this study, authors made an attempt to calculate the monetary worth of the employee using the study Discounted Present Value of future salaries. In this article, present value of the employee was calculated as product of contribution and productivity factor. The expected contribution of the employee is measured by multiplying the expected future salary by cumulative probability of staying, which was calculated from the cumulative probability of separation.

16. Flamholtz, E. G., (1987) used the “Stochastic Rewards Valuation Model” (Flamholtz 1971, 1975) in order to value human asset in a securities brokerage firm. Two important variables of this model are expected conditional value that is the maximum expected potential that can be derived from an individual to the organization with the assumption that an employee will remain in the organization till the age of retirement. Another important variable of this model is expected realizable value of an employee to the organization with the possibility of
employee leaving the organization during the anticipated useful life. The difference between the Expected realizable value and Expected conditional value is the imputed cost of turnover. This threw a light on the fact that the value could be lost when the employees left the firm after acquisition. This result of the study encouraged the management to provide the necessary incentives to the employees in order to reduce attrition rate of the organization. Author, further suggested that, acceptance of this method by the authorities will have significant impact in the field of Human Resource Accounting.

17. Alamelu, R., & Meena, L., (2012) emphasized the need for Human Resource Valuation. 50 cash management services were covered for the purpose of study. According to author, the cash management services are crucial services since it involves cash aspect thus their credible employees are key assets for these companies and their worth to the organization need to be evaluated. So the study aims to stress the need for human capital management in these organizations. Author in the study followed Lev and Schwartz model of Human Resource Valuation and calculated the value of employees of 50 cash management service companies. The author further suggested that, the human resources are an indispensable but often neglected element. This is to be fore grounded into the service industrial arena for the betterment of the economy.

18. Tofangsaz, A., Vakilifard, H., Taleinia, G., & Pour, (M., 2013) made an attempt to investigate the possibility of valuing the human resource of banks using both the approaches that are Historical Cost Model and Economic Value Model. Two models were adopted by the authors in this paper viz., Historical Cost Model and Economic Value Model in order to evaluate the human resource of banks. The obvious distinction between; Economic Value Model and Historical Cost Model used in this research paper is that Economic Value Model is based more on values while on the other hand Historical Cost Model is based more on core actual costs. In Historical Cost Model, human resource cost is majorly associated with wages,
salaries, training and employment etc. This method follows the principle of accounting.

4.3 Studies on role of Human Resource Accounting in context of performance and decision making, information reporting and disclosure of Human Resource Accounting:

1. Guduru, N., Samudrala, N., & Palakurthi, S., (2013), in this study, stressed on role of Human Resource Accounting in global era. Authors stated that proper valuation and accounting of human resource will be of great help for management in decision making. Availability and accessibility of data is the basic need for developing Human Resource Accounting capabilities. Thus, a strong Human Resource Accounting information system is needed for developing an effective and result oriented Human Resource Accounting System.

2. Parijan, K. K., (2012) proved in her study titled ‘Effectiveness of Human Resource Accounting Information in Promoting the Trade in Shares and Securities in India’ that disclosure of Human Resource Accounting information in financial statements was an influential factor that affects the investors decision making related to buying, holding, or selling shares in the Indian stock markets.

3. Akila, R., (2014) aimed to identify the opinion about implementing Human Resource Accounting in Fourrts (India) Laboratories Pvt. Ltd. Factors that were considered in this study for assessing the feasibility of implementing Human Resource Accounting System in Fourrts (India) Laboratories Pvt. Ltd. were Perception about Human Resource Accounting, Evaluation of Human Resources Information System, Evaluation of Management support, Problems Measuring the Cost of Human Resource, Opinion about implementing Human Resource Accounting in an Organization. Respondents showed positive attitude towards the implementation of Human Resource Accounting. Author further suggested that, existing systems of the organization need to be improved for adoption of Human Resource Accounting. The author also suggested that, management should
consider investment in Human Resource Accounting and consider their employees as assets of the firm rather than expenses. This changed perception towards employees will help in better human resource management and decision making.

4. Joshi, U. & Reeta, (2012) studied the management perception regarding the utility of Human Resource Accounting in decision making. For the purpose of study, top hundred companies from public sector and top hundred companies from private sector based on Economic Times rating for 2007-08 on the basis of total capital employed were selected to identify companies’ reporting on Human Resource Accounting. Out of these organizations only ten organizations disclose Human Resource Accounting information in their annual reports. However, many organizations include only some information about human resource such as costs incurred on hiring, training human resources, employee compensation, etc. In order to understand managers’ perception on utility of Human Resource Accounting on decision making, questionnaire technique was used for those organizations who were disclosing human resource information in their annual reports. Different aspects of managerial decision making on which respondents perception was acquired were as follows:

Human Resource Accounting helps in recruitment and planning.

Human Resource Accounting provides measurements for budgeting human resource acquisition & development.

Human Resource Accounting helps in personnel selection process.

Human Resource Accounting helps in resource allocation among various human resource development programs.

Human Resource Accounting helps in providing estimate of the cost of recruitment from outside & development from inside.

Human Resource Accounting helps management in human resources conservation.
Human Resource Accounting highlights the loss due to turnover of employees.

Human Resource Accounting leads to alienation.

Human Resource Accounting helps in utilization of human resources effectively & efficiently.

Human Resource Accounting creates conditions for the best treatment of personnel.

Human Resource Accounting helps in performance evaluation process.

Human Resource Accounting helps in better reward administration.

Based on mean and standard deviation calculated for the above mentioned aspects of decision making, it was found that Human Resource Accounting is proved to be very useful in all the aspects except alienation.

5. Avazzadehfath, F., & Raiashekar, H., (2011) proved that Human Resource Accounting Information disclosed in financial statements not only affects individual’s investment decision making but also managerial decision making. He further concluded that, investment in company’s human resource may bring profitability to the company.

6. Otter, J., (2012) in his research paper titled “Putting the People Component of the Business Entity on the Balance Sheet.” gave a justification for human resource to be treated as asset. According to researcher, human resources of an organization are the greatest assets to organization but still they are not recorded in financial reporting. Researcher, in his study, proposed three methods of calculating and incorporating the collective human resource of an enterprise into its balance sheet, showing the constituent parts of the human asset and expanding the scope of the return on capital employed measure.
7. Al Mamun, S. A., (2009), in her study reported the relationship between corporate characteristics and Human Resource Disclosure (HRAD) level in fifty-five randomly selected companies of Bangladesh. The relationships were determined using a HRAD Index (HRADI) under a number of hypotheses. The results of the study show that companies averagely disclose 25% of the total HRAD items. In this study, HRAD has been found significantly related with the size of the company, category of the company (financial or non-financial) and profitability.

8. Sharma, A., (2012), in her study developed a significant relation among the adaption of Human Resource Accounting technique and variables such as profit, growth, recruitment, efficiency, turnover, development, and acquisition and performance evaluation. Her analysis proved the usefulness of Human Resource Accounting in providing the estimates and measuring the cost incurred on acquiring, promoting, training, development. She also said that Output of HRA system can be used to enhance performance of employees as well as company and to take a variety of decisions in the area of human resource management.

9. Dalvadi, Y. M., (2010), studied the application of Human Resource Accounting in corporate sector in India. Her main focus in study was on HRA practices of public sector and private sector companies. The researcher identified various reporting practices of Human Resource Accounting in its annual report. Researcher made the following suggestions in her study:

   i. The measurement is subjective as methods for this purpose, so government should suggest specific model that is acceptable to all companies.

   ii. The government should make it mandatory to value and disclose human resource, related information in its annual report.

   iii. To motivate companies for Human Resource Accounting, government should provide incentives like subsidy, tax exemption, etc.
10. Hegde, P., Bloom, R., & Fuglister, J., (1997) highlighted the reporting of Human Resource Accounting in Indian Companies. They briefly discussed the different information relevant to human resource that should be incorporated in financial report of the companies as a part of disclosure of human resource information. This will help investors to get the required information about the human resource of the organization.

11. Euske, K. J., & Rock, C. T., (1983) provided valuable information to the policy makers in order to make logical decision on human resource development by examining the relative investment in human resource. Authors employed the model given by Ogan (1976) to evaluate U.S. Army’s investment in an officer. According to authors, U.S. Army could use valuable information from Human Resource Accounting Model to make to forecast its officers, requirements. They further concluded that, Human Resource Accounting provides the information to facilitate the resource allocation decisions.

12. Gordon, F. E., Rhode, J. G., & Merchant, K. A., (1977) conducted a study to identify the impact of disclosure of Human Resource Accounting information and salary data on performance and interpersonal relations. The results revealed from this study showed that group performance and interpersonal relation does not get affected by salary data where as Human Resource Accounting information disclosure produced negative effects on performance and group relation.

13. Harrell, A. M., & Klick, H. D., (1980) compared the impact of monetary and non-monetary human asset measures on decision making. This study concluded that monetary measures of human resource receive greater consideration than the non-monetary measures for an executive decision making. Executives reached different decisions while utilizing two different measures that are monetary and non-monetary human asset measures.
14. Gul, F. A., (1984) evaluated for the first time, one of the important applications of Human Resource Accounting to the problem of labour turnover management. The respondents in this study were male accountants from the accounting firms in Australia. Researcher, in this paper, studied the usefulness of human resource turnover cost information for the decision making with respect to labour turnover issue. The independent variable of the hypothesis framed in this study was human resource turn over cost combined with conventional accounting information. Respondents were asked questions to check the level of relevance and self-sufficiency of the information for decisions making on seven point Likert type scale in two different cases. In first case, only conventional accounting information was provided to the respondents for their decision making whereas in second case, additional information on human resource turnover cost was provided to the respondents for the same set of questions again. It was found from the results that, the level of confidence, relevance and sufficiency in the information increased when respondents were provided with additional information on human resource turnover cost indicating the usefulness of human resource turn over cost for decision making.

15. Abeysekera, I., & Guthrie, J.,( 2004) studied the human capital reporting practices of firms in Sri Lanka. The main purpose of this paper was, to study the degree of emphasis placed on employees and Intellectual capital via Human capital reporting. For the purpose of this study, annual reports of top 30 companies based on market capitalization of such companies were selected from Columbia Stock Exchange. The technique used for the purpose of study was Content Analysis. 25 attributes of human capital were listed in the study in order to understand the pattern of human capital disclosure in annual reports of the selected companies. These attributes include Know How, Education, Employee Features, Employee Benefits, Efficiency Ratios, Employee and Executive Compensation Plan etc. Results of the study showed that most notable attribute in annual reports of the selected companies was Employees Features that is, their names and photographs in annual reports followed by value added by the employees that is information
related to employee’s performance. Other than these two, other attributes of human capital were also discussed in this paper giving detailed understanding of human capital disclosure in firms in Sri Lanka. Researchers also compared the result of this study with the result of similar study carried out by other researcher in top twenty Australian companies and found that, approach in human capital reporting is different in developing nation than the developed nation.

16. Flamholtz, E., (1976) conducted laboratory experiments in a certified public accountant’s firm to see whether Human Resource Value numbers influence human resource management decision that is whether the information derived from Human Resource Valuation model affect the choice of decision makers. The decision selected for the purpose of the study was human resource allocation decision. In this experiment, decision makers were asked to choose between two individuals for a job assignment in two different cases. In first case, decision makers were required to make choice based on information derived from the results of performance appraisal. In second case, decision makers were provided with the monetary and non-monetary information derived from the Human Resource Valuation procedure. The expected mobility of people, probability of staying at current position, possibility of future promotions, transfers, resignation etc., were the part of non-monetary information. Monetary information was derived using Human Resource Valuation Model that is “Stochastic Rewards Valuation Model”. The result of this study showed that Human Resource Value numbers may influence human resource management decision.

17. Jelil, A. A., Olotu, A. E., & Omojola, S. O., (2014) studied opinion of different scholars in the field of Human Resource Accounting. Authors stated in this paper that, it is necessary to show “true and fair view” of company’s assets. Traditional accounting system do not provide complete picture of total assets of an organization. It just reveals the value of physical and financial resources of the firm. Thus, to show the true value of the strength of the organization, it is necessary to keep proper records and information about the human resource of the
organizations. To include this aspect of organizational asset, Human Resource Accounting plays an instrumental role by providing quantitative information about the values of human assets. Human Resource Accounting provides a base for incorporation of human asset values in financial statements of an organization thereby facilitating management in right decision making and disclosure of “true and fair view” of financial position of an organization.

18. Pyle, W. C., (1970) Concluded that the “cost approach” is an important tool for managers in development of human asset. According to author, expenditure incurred on Human Resource should no longer be treated as revenue rather it should be capitalized. Author was of view that this approach will help management in creating favorable relation with external parties. Also the wider acceptability of Human Resource Accounting with its incorporation in audited financial reports will facilitate better financial reporting.

19. Dogara, I. A., & Abduljeeleel, B. O., (2015), their study was based on Lev and Schwartz Model. It helped in studying the current value of future earnings of the human resources in few selected companies. This study reveals that gain and net worth of the company can be evaluated by considering the human asset as part of the total asset of the firm. It further reveals that, by including human resource or by valuing human resources, the investment in such firm tends to shoot up.

20. Gupta, M. N. & Singh, A. K., the aim of his study was to ascertain the perception of Human Resource Accounting among the employees of different age groups and work experience. This study revealed that there is a lot of difference between the views, ideas and thinking of the employees of different age. Aged employees give more significance to measure human asset over young employees. Likely, experienced employees give more emphasis to measure human asset, over less experienced employees. Thus, it clearly states that, older employees as well as experienced one, value and support the measurement of human assets. Thus, in order to gain competitive advantage, older and experienced employees should be
retained. In this paper, author emphasized on the need for Human Resource Accounting Information System, to consider, the cost and value of human assets.

21. Owoola, R. & Falayi, I. (2014), this study was undertaken in order to study the impact of incorporation of Human Resource Value in financial statements on financial ratios of First Nigerian Bank Ltd. This study adopted the Flamholtz’s Historical Cost Model to value human resource. The results of the study showed that the capital gearing, earning per share and return on asset of the bank improved after incorporation of human resource values in financial reports. This result of the study suggests the need for development of IFRS to treat human resource as an asset.

22. Rao, A. L., (2014), as per this research paper, human resource should not be treated with the perception of expenditure for the firm but as an investment for the firm. It suggests that firm should have an apex body for valuing and treating human resource. This will help in depicting ‘true and fair view’ of financial accounts and reports.

4.4 Human Resource Accounting in Indian Corporate Sector:
1. Kashive, N., (2012) examined the Human Resource Accounting models and studied the Human Resource Accounting applications in Indian Companies. He conducted detailed analysis of Human Resource Accounting practices adopted by some of the Indian companies to understand the extent of applicability of Human Resource Accounting in Indian corporate arena. Companies selected as a part of study were BHEL, Infosys and NTPC. Author further concluded that, many Indian companies have started valuing and disclosing their human asset in balance sheet. This practice of valuing and disclosing human asset in balance sheet has created image of such companies as employee friendly. It also helped the companies to identify monetary value of their total intangible assets including human assets.
2. Natarajan, P., & Nawaz, B., (2012) Studied the financial statement of Infosys Technologies Ltd. to get an insight into Human Resource Accounting practices followed at Infosys Technologies Ltd. The model followed by this company for the purpose of Human Resource Valuation was given by Lev and Schwartz. The overall finding of the study was that the appointment of employees and their total value increased throughout the study period that is from 1999-2000 to 2014-15, particularly during the last five years. However, there had been a continuous fluctuation in average Human Resource Value since 2004.

3. Sonara, C. K., (2009) also studied the human resource valuation and reporting practices in Indian companies. He reported in his paper that, most of the Indian companies followed models developed by Lev and Schwartz, Eric Flamholtz and Jaggi and Lau. Some of the companies mentioned in his study, that followed these models in Human Resource Valuation are Bharat Heavy Electricals Ltd. (BHEL), The Minerals and Metals Trading Corporation of India Ltd. (MMTC), Electronics India Ltd., Engineers India Ltd., The Cement Corporation of India Ltd. (CCI) and Hindustan Petroleum and Chemicals Ltd. (HPCL).

4. To check the objectivity of the valuation practice followed by the Indian organizations, Parijan, K. K., & Sumangala, C., (2013) did the Case Study Analysis of Human Resource Accounting Practices in Oil and Natural Gas Corporation Limited. The sample company selected for the purpose of the study, followed Lev and Schwartz model of Human Resource Valuation. They studied the relation between Human Asset Value and other variables. Findings of the study stated the significant and positive relation between Human Resource Value and turnover per employee, net income per employee, total assets per employee and negative relation of human resource value with Total No. of employees and return on Human Resource Value per employee.
5. Kumar, S., & Kannaujiya, T., (2015) studied the Human Resource Accounting disclosure practices of public and private companies in India. Author studied Human Resource Accounting disclosure practices in context of corporate social responsibility. Some of the human resource variables that were employed in the study for the purpose of studying human resource disclosure practices were value of human resources, value added per employee, valuation model used, human resource development fund, employee cost, turnover per employee, etc. Analysis of the study revealed that, public companies disclose their Human Resource Accounting and practices more in comparison to private companies.

6. Joshi, U. & Mahei, R., (2012), in research paper titled “Human Resource Accounting System in Selected Indian Companies” investigated and critically analyzed the practices followed by selected Indian Companies. Most of the selected companies applied Lev and Schwartz Model for their Human Resource Valuation but not all. According to researchers, one of the difficulties for applicability of Human Resource Accounting is, arriving at agreeable method of valuation and reporting for human resources as all the methods have certain assumptions and limitations. Researchers suggested a need to develop a model that is acceptable to all the companies. This study also analyzed the disclosure practices of human resource valuation information and identified that there are no such standards followed by companies for disclosure of their human resource related information.

4.5 Development of Human Resource Accounting:

1. Bullen, M. L., & Eyler, K. A., (2010), in paper titled “Human Resource Accounting and international developments: implications for measurement of human capital” studied development of Human Resource Accounting in different countries such as United States, Scandinavian countries, United Kingdom, Australia, New Zealand, India, China, Portugal, Germany, Canada and Greece. Researcher also discussed importance of Human Resource Accounting in managerial decision making and managerial reporting. Researcher also stated in his study that, though there are no accounting standards for Human Resource Accounting requirement but, they are moving closer to providing more flexible approaches to accounting measurement and reporting. Researcher further stated that the international standards, IAS 38 Intangible Assets and IFRS 3 on Business Combinations allows for the recognition of the intangible asset goodwill, which indicates a willingness to allow for valuation of assets that are not traditional tangible assets, such as human resources. Researcher also stated that, Human Resource Accounting helps managers in making decision regarding long term investments and benefits a company’s profitability.

2. Avazzadehfath, F., & Rajashekar, H. , (2011) highlighted the different reasons for development in Human Resource Accounting. Authors in this paper, discussed reasons at micro and macro level. Reasons at macro level which lead to development of Human Resource Accounting were, changing the patterns of production, work organization and employment patterns and changes in rules and regulations of government, companies and individuals. The reasons at micro level were, difficulties of measuring intangible assets and difficulty of providing enough information to investors in traditional form. Improving companies’ image, attracting future employees and retaining existing competent work force were also few reasons at macro level highlighted in this study that led to development of Human Resource Accounting.
4.6 Studies on Teachers Evaluation:

1. Santiago, P., & Benavides, F., (2009), studied aim and objectives of teachers’ performance evaluation, responsibilities of teachers’ evaluation and teachers’ evaluation procedures. Researchers also discussed about the different instruments and information sources which are typically used to evaluate teachers, these include, Classroom Observation, Teacher Self Evaluation, Teacher Portfolio, Standardized form to record teacher performance across a range of dimensions, Teacher testing, Student results, Test-based accountability systems, Surveys of students and parents, etc. Researcher further stated that, it is essential to promote teachers’ evaluation for better serving of students, their families and communities and nation. Researcher also concluded that, teachers need feedback on their performance to help them identify how to better shape and improve their teaching practice and, with the support of effective school leadership, to develop schools as professional learning communities.

2. Goe, L., Bell, C., & Little, O., (2008) examined different ways of measuring teachers’ effectiveness and different methods used to measure effectiveness. In this study, researchers also determined what type of teacher evaluation is best for the purpose of measuring teachers’ effectiveness. Different methods that are discussed in this study are: Classroom Observation, Principal Evaluation, Portfolio used to document large range of teaching behaviors and responsibilities, Teachers Self Report Measure and Student’s Survey. Researchers concluded that, there is no single measure that captures everything important that a teacher contributes to educational, social and behavioral growth of students.

3. Badyal, D. K., Bala, S., & Kathuria, P., (2010) analyzed the students’ feedback on effectiveness of teaching system. In this study, students’ feedback was obtained on different teaching methods which were implemented. These were: Lectures, Tutorials, Seminars, Demonstration, Experimental Pharmacology, Clinical Pharmacology, Revision, etc. They found that students were satisfied with all the teaching methods except Lectures, Seminars and Pharmacy Exercises. Majority
of the students showed preference for tutorials, short question answers and revision classes. The paper was concluded by expressing the need to synchronize teaching and evaluation methods with special requirements of medical students.

4. Ingrid, M., & Amaladas, L. A., (2014), in their research article conclude that Human Resource Accounting in Academics should be introduced. Researchers are of view that Human Resource Accounting will build up a great impact on the teaching facilities. This will help in generating not only good quality teaching but also help in getting good results, thus it will work wonders for the reputation of the educational institutions.

4.7 Other Studies related to Human Resource Accounting:


2. Islam, M. A., Kamruzzaman, M., & Redwanuzzaman, M., (2013), in their study reviewed the available models of Human Resource Accounting and focused their appropriateness, highlighted the major characteristics of Human Resource Accounting along with the practical difficulties in implementations. They also highlighted the needs and significance of Human Resource Accounting in the context of business performance measurement. Researchers in this study stated that, valuation of human resources, recording the valuation in accounts and fair disclosure of such information in financial statements are the demand of the stakeholders in the context of enhancing managerial performance and employees' productivity. They further stated that, “the information concerning human assets is more relevant to a great variety of decisions made by external and internal
users”. In concluding remarks, researchers mentioned that “as per accounting standards disclosure of human resource accounting information follows Historical Cost Approach to human asset valuation but this fails to show current cost. This is why; Economic Value Approach is more relevant. Still, true cost of capital for discounting the net cash flows related to human assets is also difficult to find out. As a result, replacement cost valuation method and non-monetary behavioral approach might be suitable for valuation of human resources of an organization”. Researchers also explained accounting methods of Human Resource Accounting by giving double entry effect of transactions pertaining to human resource.

3. Arora, M., (2012) is of opinion that, educational institutions are looked up with great expectations by the society. To live up to these expectations, educational institutions need to enhance the efficiency and development pattern of its employees. To bring about stability, growth, diversification and renewal, these institutions can take help of Human Resource Accounting.

4. Roslender, R., & Dyson, J. R., (1992) made an attempt to uplift the interest in one of the important approaches to accounting, for the worth of employees, in the subject of Human Resource Accounting. Authors in this paper discussed the past research work done in this area. These include, work done by Tom Peters throughout the 1980’s, Waterman and Peter in 1982, the pioneer work done by Hermanson in 1964, Hekmian and Jones in 1967. Author also highlighted the contribution made by Flamholtz and others in the area of Human Resource Accounting. Authors concluded that, accounting for the worth of employees has gained weightage but, it needs further attention.

5. Van Den Bergh, R. J. A., & Fischer, J., (1976) discussed the different conceptual, technical and organizational problems encountered in field research of Human Resource Accounting. The main purpose of this research program was to design, test and implement the information system to give reliable, systematic and useful data on different aspects of human organization. Some of the major problems
highlighted are: managers’ perception of the likely effects of this research, different cultures, background and experience of the employees, communication and their trust in this research program etc. This study may prove to be a guideline for further research of similar kind.

6. Marquès, E., (1976) raised different questions and discussed their responses to encourage the further research in the field of Human Resource Accounting. Some of points highlighted in discussion of responses for the question asked includes, the objective of Human Resource Accounting, is monetary evaluation of human capital, which is needed to provide the information in annual statements. Through discussion in this paper, author also tried to bring our attention towards the need of considering the economic value of an individual that is Human Resource Value. Another important point enlightened in this paper was, future cost rather than historical cost, as discussed by Lev and Schwartz, and possible benefit to workers from the use of Human Resource Accounting.

7. Paki, H., & Azar, S. F., (2015), the main objective of this study is, Integration of Fuzzy AHP with TOPSIS for Ranking of Barriers of Human Resources Accounting from the viewpoint of managers in Pumpiran Company. Authors have identified the important barriers of Human Resource Accounting by statistical method. These barriers include: difficulty in collecting data, complexity of calculation of criteria and models of Human Resource Accounting, lack of awareness of benefits of Human Resource Accounting, high cost of implementation of Human Resource Accounting.

8. Puett, J. F., & Roman, D. D., (1976) undertook a pilot research project to ascertain the feasibility and validity of human resource valuation process. Apart from feasibility and validity of Human Resource Valuation, another issue that was given consideration in this research project was the possible benefit that organization may receive from the application of Human Resource Valuation concept. Among the total respondents interviewed, 83.7%, confirmed the
feasibility and validity of Human Resource Valuation. One of the interesting outcomes of this project was that, 92% of the total respondents from accounting profession and 97% of the top managers surveyed favored the application of Human Resource Valuation. Some of the negative responses were from middle level management as they found it as threat to their job. This reaction to Human Resource Valuation could be from those who were scared of their inefficiency being exposed.

9. American Accounting Association Committee on Accounting for Human Resources, (1973 & 1974), this committee submitted reports on different aspects of Human Resource Accounting which includes behavioral impacts on Human Resource Accounting, management skepticism concerning Human Resource Accounting, research on Human Resource Valuation, measurement of Human Resource Accounting, contribution made by different research scholars in development of models of Human Resource Valuation, application of Human Resource Accounting, cognitive and behavioral impact, etc.

10. Onyekwelu, F., Osisioma, B.C. & Ugwuanyi, B., (2015) determined the relationship between Human Capital Accounting and firms' profitability, firms' net worth and also assessed the extent to which human capital affects firms’ share price. Onyekundu, with other researchers found out that Human Capital Accounting is closely linked with firm’s financial position. They concluded that, investments on human capital, when, considered as an asset, lead to an increase in the firm’s financial position. Treating such expenses incurred on human asset as revenue expense leads to showcase a false picture of the financial statements of the firm. They were of the view that, such expenditure on human asset should be given a treatment of an asset and thereby it should be written off over a period of time. This will help in proper valuation of the firm.
4.8 Research Gap:

There are number of studies conducted on different aspects of Human Resource Accounting and its application in corporate sector. There are studies on Human Resource Valuation that is, how to know the worth of the employee/worker of the organization but all such studies are restricted up to corporate sector. Very few studies are conducted to value human resource value of college teachers. Also, there are plenty of studies conducted on teachers’ performance evaluation but very few studies are focused on evaluating teachers’ worth to the institutions in monetary terms.

This study is an attempt towards introduction of Human Resource Accounting in teaching sector thereby providing future scope for further research in Human Resource Accounting in teaching sector. There are few studies which highlighted importance of application of Human Resource Accounting in teaching section but very few studies made an attempt to calculate the teachers’ value by applying the Human Resource Accounting Model. This research has made an attempt to fill up this gap by computing Human Resource Value of respective teachers and further analyzing it in relation to other variables in study such as teachers’ awareness on different opportunities related to promotion and information available for promotion and level of preparedness for promotion. Hence, the researcher has framed problem, hypotheses and objectives of the study to test the research gap (see chapter 1).
4.9 References:


