

Diagnosing Intellectual Capital: A Case Study of Textile Company and its Implications on Managerial Decision Making

Pooja Mehta

Assistant Professor

Sri Aurobindo College of Commerce and Management

Ludhiana, Punjab

E-mail: mehtapooja1@gmail.com

Abstract

The advent of knowledge based economy has led to a number of changes in the accounting and reporting practices of the organizations. In spite of the fact that human capital is the real contributory for the success of an organization, It is very sad to note even today, our accounting researches could not develop a foolproof accounting system to evaluate the most important and valuable assets of an enterprise, that is man. The concept continues to be debated by economic, accounting, and psychology theoreticians universally. Different models have been developed for the valuation of human capital focusing on different aspects. The present study is based on providing an extended version of the Lev and Schwartz model of valuation. A case study of a Textiles company has been done to suggest a model of valuation. The results show that the valuation of human capital can become more meaningful by giving equal weightage to the turnover rate of the employees, training cost and the annual increment being given to the employees. It has also revealed that the inclusion of human capital valuation enhances the quality of the information content of financial reports.

Keywords: Training cost, Turnover rate, Lev and Schwartz model

1.1 Introduction

Human resources are the most valuable resource of any organization. They are the secret behind the success of all great companies. Of the four factors of production i.e. men, money, method and land only the first one is active factor and is responsible for the successful application of the rest of others (Avazzadehfath and Raiashekar, 2010). The latest advancement in technology is also inert and cannot be applied without human intervention. Despite such widespread acceptance of the importance of humans, they are not accounted for in the books of accounting and are not considered in financial decision making.

This creates a fundamental gap in our current accounting practices. Any financial reporting which does not take into account the contribution of human capital is incomplete. The primary role of accounting is to provide an effective measurement and reporting system for decision making. Thus,

the acceptance of Human Resource Accounting as a separate field of research is necessary. For any organization, the value of its HR depends upon their contribution in achieving organizational goals.

1.2 Indian experiences with HRA

In India, the Government of India took initiative as early as 1968 by issuing the guidelines for incorporating the required information regarding employee (employer relations, lockouts, strikes, training, incentive schemes etc.) and staff welfare activities (education, health facilities, township etc.) in the Annual Reports of Public Sector Entities (No. BPE/10(1)Adv(1)/1968 dated 11 September, 1968).

HRA was pioneered by PSUs like BHEL and SAIL in the 1970's. Several other companies like Cement Corporation of India (CCI), National Thermal Power Corporation (NTPC), Oil and Natural Gas Corporation of India (ONGC), Hindustan Petroleum Corporation Limited (HPCL) etc followed suit and started reporting their human assets. Private sector corporations like Infosys, Reliance Industries, Satyam Computers and DSQ Software have also reported their human asset values at some point.

1.3 Various complexities related to company's Human Capital in Textile Business

Keeping into mind an element of complexity in human capital of fabric business, a Textiles unit has been intentionally chosen for the study. The said complexity is explained as follows:

- a) **Heterogeneity in Production Process:** A variety of jobs are required to be performed in fabric business. Fabric Business is complex as compared to yarn business since the production is done as per customers' requirements. Right from procuring raw material till finish product, great amount of precision is required for each and every task.
- b) **Use of special skill:** Special skill is required to perform the variety of jobs. Each and every person's role is limited. Manpower is skilled. Majority workers are minimum matriculation pass. Engineer workers are ITI diploma holders. All product variants are made on one type of machine only by making differentiation in manufacturing process.
- c) **Timely delivery is required:** Ordering process is season based. It is carried out according to four seasons i.e. spring, summer, fall and winter. Even a minimal delay in production can lead to rejection of order by the customers.
- d) **High Temperature in plant:** The temperature in the plant is around 42 degree Celsius. There are many Pharmaceutical packing companies around this unit, where temperature is also not a problem. It poses a biggest challenge for the company to retain the employees.

e) **Separate Standard Operating Practices (SOP) for each single order:** There is a separate Standard Operating Practice (SOP) for each single order with respect to speed and temperature setting details of the machine. A separate Process Sheet is attached along with each order. The operator has to be very particular in understanding and following the specifications of each order. That is why, skilled labour force is required. All production is done strictly according to the order, that too with prototype sample already given to the customer.

f) **Customers are sensitive for Colour and ‘hand-feel’ of the product:** Customers are Colour sensitive and they are very particular about ‘*hand-feel*’ of the product, which is very subjective thing. The finished product in fabric business is not a standard product. The CEO of the unit explained this thing by taking an example of ‘Swift Desire’ car, which is a standard product with all the set particulars. However, the end product of fabric business can never be compared with that of vehicle industry.

g) **All customers are Brand Retailers:** Almost all of the customers of the unit are Brand Retailers viz. a viz. Raymond, Marks & Spencer, H&M etc. Accordingly, the expectations for quality product increases. Hence, For finding new innovation, the company has its own Central Product Development Centre (CPDC).

1.4 Objectives of the study

This study focuses on development of a model for addressing the issue of valuation of human resources. The objectives of the study are:

1. To propose a model for HRA for the valuation of human resources based on the understanding of existing models.
2. To value the human resources of a Textiles unit based on the proposed model.
3. To establish that human resource valuation can be helpful for managerial decision making.

2. Literature Review

The past several decades have witnessed a remarkable emphasis in the area of HRA. Several advocates of HRA have propagated the practical implications of HRA and its use in several areas. The most popular amongst being, Lev & Schwartz (1971), Elias (1972), Hendricks (1976), Pekin Ogan (1988), Dawson (1994), Flamholtz (2004), Herman & Mitchell (2008). Hendricks (1976) conducted a study taking accounting and finance students as a sample. The simulated study shows that HRA has a significant positive relationship with the decision making by the investors. Gupta (1992) conducted a study on the comparative analysis of HRA disclosure practices followed by the selected public and private enterprises. The findings of the study reveal that although the

organizations disclose the information regarding the valuation of human resource, yet it is lacking in the area of quality and use of human resources. He has suggested that attention should be given towards the second element as it can be crucial for the purpose of decision making.

Dawson (1994) investigated in his study the relationship between two the replacement cost model (RCM) and the stochastic rewards valuation model (SRVM) of human resource valuation. The study highlights the practical implications of human resource valuation by throwing light on the benefits and limitations of simulation methodologies and its relationship with the prescriptive and descriptive approaches to the study of management. Batra (1996) asserted in his study the importance of auditing for human resource valuation by suggesting successful human resource accounting must be accompanied a system of HR audit to assure the performance of managers in the overall interest of the organization. Moreover it is imperative for finding out the efficiency of various segments of the business as well as the human resources in the ever changing business environment. Cuganesan (2006) examined the use of Key Performance Indicators (KPI) by the Australian banks in managing and utilizing the human resources. The author claims that the examination of KPI reporting indicates significant differences in the amount of KPIs reported and focus of the KPIs reported. The main reason for reporting of human resources is the stakeholder perspective. Theeke and Mitchell (2008) evaluated the applicability of reporting under a human resource liability into the traditional accounting framework of contingent liabilities. The authors have examined the effect of human resource reporting on the two very important aspects i.e. market valuation and internal planning. They have propagated the need to have a shift in the human resource liability for the proper valuation of human resources. Singh and Singh (2009) have reported the results of a study nconducted to evaluate the human resource accounting practices in Infosys Technologies Limited (ITL). The study shows that the HRA practices in ITL are satisfactory. In spite of the fact that there is neither any provision in the Companies Act 1956 nor there is standard regarding HRA, ITL has adopted HRA practices on its own. However the authors have suggested the inclusion of HR ratios by ITL in order to make HR decision more effective. Cirappa and Muttesha (2010) reported the results of a study on the relationship between corporate attributes and HRA decision of the listed companies in Bangladesh. The findings reveal that the companies having higher market value give more importance to HRA information and hence disclose more as compared to the smaller companies. The fundamental reason for such disclosure is to maintain such market share in future as well. Another finding of the study is that the financial companies disclose more information relating to human resources as compared to non financial companies. Andrade and Sotomayor (2011) discussed the various models for the measurement of

human resource values. The paper validates the popularity of Lev & Schwartz and Flamholtz model as far as the practical applicability is concerned. Avazzadehfath and Raiashekar (2011) performed a study with threefold objectives i.e. the impact of HRA information disclosure on the investment decisions, factors affecting such decision and the evaluation of most appropriate method for the valuation of human resources. The findings reveal that the disclosure of HRA information significantly affects investment decision. Regarding the method of evaluation, it is being observed that the original cost method is the most appropriate method which is consistent with the Iranian companies. Kashive (2011) argued that in spite of the fact that the Intellectual Capital (IC) measurement, reporting and disclosure are important elements for any organization; the Indian forms are still lagging behind their counterparts in European and American continents. This actually requires awareness about the significance of disclosure of human resource valuation on market valuation so that the companies pay their attention towards voluntary disclosure of human resources valuation.

Ratti (2012) conducted a study to determine the human resource efficiency quotient by calculating the value of human resources at different levels of the organization. The study concludes that the calculation of human resource efficiency quotient is quite an expensive affair and difficult as well. Islam et al (2013) performed a study on the recognition and disclosure of accounting methods and techniques of HRA. The authors have supported the use of economic value approach for the valuation of human resources, as the historical cost method is not the appropriate method of valuation. The authors have advocated the use of specific provisions in the Companies Act for the proper valuation of human resources as well as disclosure of details of investment in human assets in the form of training and development expenses, salaries and other allowances etc through annual reports. Pandurangarao et al (2013) advocated the use of HRA by arguing that there is need to do more in the area of human resource valuation so as to show greater progress. In fact it requires an extensive search into the valuation methods and models, so as to ensure its practical applicability. Qatawneh (2013) found in his study that there exists a positive and significant relationship between human resource accounting information and accounting information system. At the same time it also enhances the reliability of the accounting information system. Human resource accounting information had contributed to increase efficiency and role effectiveness of accounting information systems in companies. Khodabakhshi and Arash (2014) in his study focused on the analysis of HR valuation models used by the Indian companies. The main objective of the study is to do analysis of the variables so as to arrive at some logical decision and monitor the effectual use of human asset

and assign value to the human resources. The findings reveal that amongst all the models, Lev and Schwartz model is the most popular.

3. Methodology

A two pronged research methodology was followed in this study. The first part was development of a model for HRA. To achieve this, the existing body of knowledge was thoroughly studied. This also covered two aspects, studying the existing models of HRA and studying the implementation of these models in different parts of the world and understanding the inferences of these researches.

The second part is an empirical study for practical application of the model developed above. It is based primarily on the use and interpretation of primary data in the form of employee salary/wages, emoluments and other employee related expenses.

Data has been primarily collected through physical visit to the plant the Textiles unit. In order to understand the human resource practices, complexities in production process, supply chain management, marketing and distribution network, challenges faced by the company, various officials were contacted personally.

The secondary data and information have been used mainly for the purpose of ascertaining the existing accounting practices regarding valuation of HR, the practical application of HRA models and the disclosure of HR values in the annual reports of the companies.

4. Conceptual Discussion

The review of literatures throws light on some the important studies on HRA practices which are adopted by the companies. At this point of time it becomes imperative to understand the approaches for valuation of HRA. There are two approaches i.e. cost based and *value based*. The cost based models are based on acquisition cost and replacement cost. The value based models are based on finding out the present value of employees. Some of the important value based models include **Hermanson's Model** (calculating present value of discounted wages of employees and adjusting by efficiency ratio), **Flamholtz's Model** (calculating the amount that an organization realizes if an employee works in an organization considering the fact that he can leave the organization), **Ogans Model** (calculating the value of human resources based on efficiency index and standard work index), **Jaggi and Lau's Model** (Based on calculating the value of human resources based on homogeneous groups) and LEV AND SCHWARTZ MODEL. The current research, is largely based on '*Lev and Schwartz Present Value of Future Earnings Model*' and research findings of Singh in his book '*Accounting for Human Resources- Acquisition, Development and Retention*'. In order to understand this research, we need to first understand the studies stated above.

4.1 Lev & Schwartz Model

The Lev & Schwartz model states that the human resource of the company is the summation of the Net Present Value (NPV) of the expenditure on employees. It determines the present value of future earnings of a person in an organization. Under this model, the following steps are adopted to determine the value of HR:

- i. All employees are classified in specific groups according to their age and skill.
- ii. Average annual earnings are determined for various ranges of age.
- iii. The total earnings which each group will get upto retirement age are calculated.
- iv. The total earnings calculated as above are discounted at the rate of cost of capital.

The value thus arrived at will be the value of human resources/assets. So, the human capital embodied in a person is the present value of his earnings from employment. The following formula has been suggested for calculating the value of an employee according to this model

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

Where:

V_r = the value of an individual r years old

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

t = retirement age

r = the discount rate specific to the cost of capital to the company.

The limitations of Lev and Schwartz Model are as follows-

1. The Model ignores the possibility and probability that individual may leave an organization for reason other than death or retirement.
2. The acquisition expenses incurred by the company on its employees are not considered.
3. The development expenses incurred by the company on its employees are not considered.
4. This model does not consider the variable of career management of the worker within the organization.

4.2 Proposed Acquisition, Development & Retention Model for HR Valuation

The proposed model aims to incorporate existing research in the field of HRA and develop a new model for HR valuation. The objectives of this model are:

1. Quantify and calculate the Acquisition, Development and Retention cost of existing HR and use them to find the 'value of HR' of a Textiles unit.

2. Analyse the value of HR and its uses in managerial decision making.
3. Enumerate the possible benefits arising out of such disclosure to the stakeholders of a company.

4.2.1 Components of ADR Model

There are 3 main components of ADR Model:

1. **Acquisition Cost:** It is the cost of acquiring the HR by an organisation and includes- agency fees, advertisement cost for recruitment, overhead expenses in selection, expenses incurred on recruiting workers by organizing various camps in rural areas and relevant salary of recruitment personnel. AS 10 specifies that the cost of fixed assets includes any directly attributable cost of bringing the asset to its working condition for its intended use.
2. **Development Cost:** It is the training and development expenses undertaken by organisation for effective and efficient employment of HR and includes- induction expenses, on/off the job training cost, salary/fees of training staff, travel & lodging cost for off-the-job training, study material cost, paid leave for training and trainer fees.
3. **Retention Cost:** It is the cost incurred by an organisation to retain its employees thereby gaining long term benefits of performance from them. It includes- basic wages/salary, allowances, fringe benefits, welfare expenditure, employer contribution to PF, retirement benefits and gratuity. An organisation intends to retain HR up to its useful life. Retention cost also includes expenditure incurred by the company on recreational activities for employees viz v viz get togethers, festivals celebration etc.

4.3 Empirical Study- Application of ADR Model:

Table 1: Compensation and Expense Summary

PARTICULARS	MANAGER +EXECUTIVES + STAFF	WORKERS
Acquisition Cost	References, online placement agencies and consultants	Expense incurred for holding various camps in rural areas for recruitment
Development	Cost incurred by company's Training	Induction cost
Retention Cost	Basic	Minimum Wages
	Employer contribution to PF@ 12%	Employer contribution to PF @12%
	Leave Encashment	Admin charges @ Rs 0.85%
	Gratuity	Welfare Fund
	House Rent Allowance	Inspection charges @ 0.01%

	City Compensatory Allowance	ELDI charges @ 0.5%
--	-----------------------------	---------------------

Table 2: Hierarchical Structure of Textile Unit

SL NO	HIERARCHY	PARTICULARS
1	STAFF	<ul style="list-style-type: none"> ● Unskilled/ inexperienced fresh graduates ranging from S5 to S1 depending upon their skill and experience.
2	OFFICERS	<ul style="list-style-type: none"> ● Campus recruits having qualification of MBA/B Tech/ Diploma in textiles ● Two levels O2 and O1 depending upon their skill and experience.
3	EXECUTIVES	<ul style="list-style-type: none"> ● Skillful professionals with MBA/B Tech having Minimum 3-7 years of experience ● Two levels E2 (Executive) and E1 (Assistant Executive) depending upon their skill and experience.
4	MANAGERS	<ul style="list-style-type: none"> ● Either Section Heads or Sub Heads or Main Heads ● Four levels: <ul style="list-style-type: none"> M4 --- Chief Manager M3 --- Senior Manager M2 --- Manager M1 --- Assistant Manager
5	AVP and above	<ul style="list-style-type: none"> ● Includes all Key Managerial Personnel ● Five levels: <ul style="list-style-type: none"> AVP --- Assistant Vice President VP --- Vice President SVP --- Senior Vice President GM --- General Manager CEO --- Chief Executive Officer

** Keeping the element of confidentiality, the company provided data of employees til M3 level only. Therefore, the study has been restricted till M3 level only.

Table 3 : Number of Employees at a Glance

SR. NO.	PARTICULARS	NO. OF PERSONS
1	M3 LEVEL - MANAGER	07

2	M2 LEVEL - MANAGER	12
3	M1 LEVEL - MANAGER	11
4	E2 LEVEL - EXECUTIVE	20
5	E1 LEVEL - EXECUTIVE	38
6	O2 LEVEL – OFFICER	45
7	O1 LEVEL – OFFICER	31
8	S5 LEVEL – STAFF	06
9	S4 LEVEL – STAFF	30
10	S3 LEVEL – STAFF	26
11	S2 LEVEL – STAFF	24
12	S1 LEVEL – STAFF	03
13	SS LEVEL – STAFF	28
14	Workers: Production/ Technical/ Non Technical	573
15	Workers: Engineering/ Maintenance/ Electrical	104
Total		958

5. Valuation of Human Capitalization of Textile Unit

1. The workers have been valued for the year 2016 .
2. The total workforce of the company is divided into FIVE major groups on the basis of nature of work performed by them.
3. The Textiles unit has 677 Workers sub-divided into Production/ Technical/ Non Technical/ Engineering/ Maintenance/ Electrical
4. Values for various heads namely acquisition, development and retention are calculated separately.

5. All future expenses are discounted at the cost of capital which was discounted at 10% to arrive at present value of future earnings of employees.
6. The acquisition and development cost of current workforce already incurred are calculated.

Table 4: Acquisition Cost of Employees

	Managers	Executives	Officers	Staff	Workers	Total
Number	30	58	76	117	677	958
Acquisition cost per year	80,855	60,754	40,800	1,64,799.53	3,45,416.59	6,92,625.12
Acquisition cost per employee per year	2,695	1,048	537	1410	510	

Table 5: Training & Development Cost of Employees

Common/Misc.	357506.3
Managers and Above	3255305
Officers/Executives	14275
Total	3627086.3

Table 6: Retention Cost of Employees

	Managers	Executives	Officers	Staff	Workers
Number	30	58	76	117	677
Retention cost per year (Cost to company) (1)	3,06,25,519	3,13,09,834	2,63,70,213	2,36,29,355	11,31,46,848
Retention cost per employee per year	10,20,850	5,39,825	3,46,977	2,01,960	1,67,130
Present Average Age (2)	30	32	28	29	30
Retirement Age (3)	58	58	58	58	58

Increment Rate	8.42%	9.74%	9.74%	8.42%	8.42%
Annual Increment (4)	25,78,668.7	30,49,577.83	25,68,458.75	19,89,591.70	95,26,964.6
Cost to Company at the time of retirement (5) =(1) + (4)*(3-2)	10,28,28,242.6	11,05,98,857.6	10,34,23,975.5	8,13,27,514.3	37,99,01,856.8
Present value Factor @ 10% assumed rate	0.0693 (for 28 years)	0.0839 (for 26 years)	0.0573 (for 30 years)	0.0630 (for 28 years)	0.0693 (for 28 years)
Present Value of Cost to Company at the time of retirement (assumed Discount Factor @ 10%)	71,25,997.21	92,79,244.15	59,26,193.80	51,23,633.4	2,63,27,198.68

Table 7: Total Present Value of Human Capitalization

PRESENT VALUE OF COST TO COMPANY AT THE TIME OF RETIREMENT			
Managers		71,25,997.21	
Executives		92,79,244.15	
Officers		59,26,193.80	
Staff		51,23,633.4	
Workers		2,63,27,198.68	
Total			5,37,82,267.24
Acquisition Cost			6,92,625.12
Welfare expenses p.a			
employee welfare exp		1109189.54	
Festival celebration exp		461138.54	15,70,328.08
Training Cost p.a		36,27,086.3	

Plus: Additional training cost incurred due to attrition (overall 13%)		4,71,521.22	40,98,607.52
TOTAL PRESENT VALUE OF HUMAN CAPITALISATION			6,01,43,827.96

6. Human Capitalization and Managerial Decision Making

The value of human capital thus arrived at, can also be used by the company for managerial decision making. Following ratio analysis is useful in his regard:

Table 8: Ratio Analysis with HR Values

RATIO	FORMULA
Increase in value of HR	$\frac{(\text{Current year value of HR} - \text{Previous year value of HR}) \times 100}{\text{Previous year value of HR}}$
HR contribution towards Capital employed	$\frac{\text{Value of Human Resource} \times 100}{\text{Capital Employed}}$
HR contribution towards Net Profit	$\frac{\text{Value of HR} \times 100}{\text{Net Profit}}$
Worker contribution towards Operating Profit	$\frac{\text{Value of HR} \times 100}{\text{Operating Profit}}$
Revenue per unit HR	$\frac{\text{Total Revenue}}{\text{Value of HR}}$
Total Assets to HR Assets	$\frac{\text{Total Assets (excl HR assets)} \times 100}{\text{Value of HR}}$

Increase in Value of HR: This ratio indicates whether the value of HR has increased from the previous year or not. It also tells the magnitude of such change. It is useful when the value of HR is calculated periodically over the years.

Contribution Ratios: These ratios calculate the contribution of employees towards various major factors of the company. It assumes that of the four factors of production, only man is an active factor and responsible for extracting value from the other factors. It indicates the ability of HR to extract value from its factors of production. It includes:

1. HR contribution towards capital employed
2. HR contribution towards net profit
3. Worker contribution towards operating profit
4. Revenue per unit of HR
5. Total assets to HR assets

Return on Human Resources

So far, an attempt has been made to devise a model for valuation of HR based on futuristic values. In simple terms, the value of HR has been calculated by finding the present value of the salary, the employees will be paid till their age of retirement which turns out to be a number of big denomination.

Such valuations can be used an effective tool when it comes to motivation of employees. But these figures are of little significance for managerial decision-making. This gives rise to a need for formulating a technique which is based on the current accounting year's values and which may help in extracting results useful for decision-making

Thus, the following concept is framed which is based on the assumption that the super normal profits earned by a firm are purely due to the efforts of its HR.

7. Recommendations, Limitations and Conclusion

The model considers **all expenses** made on an employee during his serviceable life by dividing them under acquisition, development and retention cost. The possibility of **attrition** has been considered in this model. The acquisition and development expenses previously incurred are taken at real values, thereby increasing the accuracy of valuation. **Annual increments** in wages/salaries have been duly accounted for.

7.1 Recommendations:

- Including value of human resources can influence the investment decision of investors in an organisation and hence must be calculated periodically.
- 'Value of HR' must be shown on the Assets side of Balance Sheet under 'Intangible Assets' and an equal value must be shown as 'Capital Reserve' on the Liabilities side.
- 'Value of HR' must be used for managerial decision making and not financial decision making.

- Organisation should value its employees at the end of every year and should use such values for comparison with previous years to check whether its Human Assets were appreciating over the years or not.
- Ratio analysis can be used for various managerial decision making. Also, proposed model can be used as an effective motivational tool as it enables employees to know their value to the organization in quantitative terms.

7.2 Limitations:

- 'Value of HR' can only be used for Managerial Accounting and not Financial Accounting as the system of system of HRA is still not foolproof and a standardized practice of valuing HR is yet to be developed.
- The model works well for manufacturing companies of small to medium size where employees can be divided easily into homogenous groups. However, in service sector or large companies, calculating HR values through the above model may be difficult due to size.
- The model relies heavily on past data which may or may not be maintained properly by organisations.
- Forecast of future values are susceptible to wide range of uncertainties that may arise in the future and may render present values inaccurate.
- Cost of capital is a volatile concept and may be different for different years. Hence, generalizing a rate is difficult.
- Considering HR as assets like any other physical asset is a partially correct statement. While HR like other assets works towards achievement of organisational goals, organisation has little control over the way HR will behave. Additionally, unlike other physical assests, value of HR for any organisation actually increases with time.

7.3 Conclusion:

The proposed model can be used as an effective motivational tool as it enables employees to know their value to the organization in quantitative terms. It will help an employee to estimate his earnings throughout his tenure in the organization which will give him a sense of financial and moral security. Moreover the persons working towards the valuation of human resources must understand its usefulness towards managerial decision making. The present study highlights this

aspect by taking a hypothetical example of two firms and suggests that the contribution of HR towards capital employed can assist the managers in arriving at better decisions. But at the same time, it is an agreed fact that the concept of human resource accounting is still in its adolescence stage and struggling for its applicability by the organizations. A lot of research work is required to be done before a holistic method of HR valuation is devised. The value of HR depends upon the contribution in achieving organisational goals. If an employee contributes positively towards this goal, he/she will be rewarded by the organisation in the form of increased security and incentives, thereby increasing his/her value.

Lev & Schwartz is the most widely used model for HR valuation in most companies because of its ease of use and understanding. However, it suffers from some limitations and attempt has been made by this research to overcome those limitations and give an alternate model for HR valuation. Practical applicability of the model and its use in managerial decision making has also been discussed thoroughly.

Time and again studies have shown that superior performing companies recognized and rewarded their best employees thereby highlighting the value of human capital. But at the same time, it is an agreed fact that the concept of human resource accounting is still in its adolescence stage and struggling for its applicability by the organizations. A lot of research work is required to be done before a holistic method of HR valuation is devised.

References:

- Andrade, P. and Sotomayor, A. M. (2011). Human capital accounting – Measurement models. *International Journal of Economics and Management Sciences*, 1(3), 78-99.
- Avaazadehfath, F. and Raiashekar, H. (2011). Decision-Making based on human resource accounting information and its evaluation method, *Asian Journal of Finance & Accounting*, 3(1), 1-13.
- Batra, G.S. (1996). Human resource auditing as a tool of human resource valuation: Interface and emerging practices. *Managerial Auditing Journal*, 11(8), 23 – 30.
- Cirappa. I. B., and Mutttesha. N. (2014). A study on human resource accounting. *International Journal of Research in Commerce, Economics & Management*, 4(2), 46-52.
- Cuganesan, S. (2006). Reporting organisational performance in managing human resources: Intellectual capital or stakeholder perspectives? *Journal of Human Resource Costing & Accounting*, 10(3), 164 – 188.

- Dawson, C. (1994). Human resource accounting: From prescription to description. *Management Decision*, 32(6), 35 – 40.
- Elias, N.S. (1972). The Effects of Human Asset Statements on the Investment Decision: An Experiment. *Empirical Research in Accounting: Selected Studies*, pp. 215-233.
- Flamholtz, E. G., Kannan-Narasimhan, R., & Bullen, M.L. (2004). Human Resource Accounting today: Contributions, controversies and conclusions. *Journal of Human Resource Costing & Accounting*, Vol. 8 (2), pp 23-37.
- Gupta, D. (1992). Human resource accounting disclosure practices in India: A viewpoint. *ASCI Journal of Management*, 21, 1-5.
- Hendricks J.A. (1976). The Impact of Human Resource Accounting Information on Stock Investment Decisions. *The Accounting Review*, 292-305.
- Islam, A., Kamruzzaman, Md., and Redwanuzzaman, Md. (2013). Human resource accounting: Recognition and disclosure of accounting methods & techniques. *Global Journal of Management and Business Research Accounting and Auditing*, 13(3), 1-9.
- Kashive, N. (2011). Importance of human resource accounting practices and implications of measuring value of human capital: Case study of successful PSUs in India. *XIMB Journal of Case Research*, 4(2), 113-144.
- Khodabakhshi, P. K. and Arash, N. (2014). Measurement models of human resource accounting: With special reference to Indian companies HR practices. *Asian Journal of Research in Social Sciences and Humanities*, 4(3), 124-140.
- Lev, B., & A. Schwartz. (1971). On the Use of the Economic Concept of Human Capital in Financial Statements. *The Accounting Review*, 103-112.
- Mehta, P., & Jain, A. (2015). *Measuring Human Capital: An Extended Version of Lev And Schwartz Model*. *Indian Journal of Accounting*, 93-105.
- Ogan, P. (1976). Application of a Human Resource Value Model: A Field Study. *Accounting, Organisations and Society*, 195-217.
- Perera, A. S. (2010). Relevance of knowledge towards measurement of human resources on investment decisions in Sri Lanka. *International Journal of Research in Commerce and Management*, 5, 7-14.
- Qatawneh, A. M. (2013). The role of human resource accounting information on the accounting information system. *European Journal of Business and Management*, 5(13), 137-140.
- Ratti, M. (2012). An analytical study of human resource accounting practices –An Indian experience. *Integral Review - A Journal of Management*, 5(2), 37-45.

- Sharma, S. and Shukla, R.K. (2010). Application of human resource accounting in heavy industries. *Samriddhi*, 1(2), 130-133.
- Singh, H.K. and Singh, V. (2009). Human resource accounting practices in Infosys Technologies Ltd. - An evaluation. *Management Insight*, 5(1), 67-73.
- Theeke, H. & Mitchell, J.B. (2008). Financial implications of accounting for human resources using a liability model. *Journal of Human Resource Costing & Accounting*, 12(2), 124 – 137.