

Measuring Employees Value: A Critical Study on Human Resources Accounting in India

Vineet Chouhan¹

Assistant Professor, School of Management, Sir Padampat Singhania
University, Bhatewer, Udaipur. Rajasthan, India

Nader Naghshbandi

Research Scholar, JRN Rajasthan Vidhyapeeth University, Udaipur.
Rajasthan, India

Abstract

Human Resource (HR) is most crucial, very important and sensitive factor used as an input for production. This factor was overlooked earlier for accounting purposes due to the availability of excess and unorganised manpower and relatively low cost. But after liberalization of Indian economy (in 1991) the importance of human resources were recognised. Although a little interest has been shown by professional accountancy bodies, like ICAI, ICSI and ICMAI on Human Resource Accounting (HRA) in Indian the importance is now given on HRA by public sector undertakings that have made pioneering attempts by disclosing Human Resource Values in their published annual reports. Similarly the other private companies are also disclosing the HR values in their financial statements. This paper seeks to present brief description of Concepts of HRA, analyse the disclosure in 5 major companies in India. The study also analyses the difference between the HRV, and to establish the relationship between Profitability and HRV with other predictor values like Net worth, Sales and EPS. By using ANOVA, Tukey post Hoc Test and multiple regression it was found that HRV and Sales are the predictor of Profitability in selected companies in India.

Keywords: Human Resource Value, Human Resource Accounting, Human Resource Valuation, Value per employee.

Cite this article: Chouhan, V., & Naghshbandi, N. (2015). Measuring Employees Value: A Critical Study on Human Resources Accounting in India. *International Journal of Management, Accounting and Economics*, 2(4), 277-292.

¹ Corresponding author's email: vineet.chouhan@spsu.ac.in, vin_chouhan0209@rediffmail.com

Introduction

Researches have proved time and time again that human resources have always activated physical resources. The efficiency and effectiveness of inanimate resources depends mainly on quality, creative abilities, innovative thinking, intuition, imagination, knowledge, experience, skills, caliber, perception and character of human resources, as physical resources cannot act on their own. This necessitates treatment of human resources as assets like physical and financial assets because animate resources are the real assets for a firm. It has become vital to value human resources. Human Resource Accounting (HRA) is the process of identifying and measuring data about human resources and communicating this information to interested parties (American Accounting Association, 1973). It is an attempt to identify and report investments made in human resources of an organization that are presently not accounted for in conventional accounting practice. Basically it is information system that tells the management what changes over time are occurring to the human resources of the business (Woodruff, 1969). It is the measurement and reporting of the cost and value of people as organizational resources. It involves accounting for investment in people and their replacement costs, as well as accounting for the economic values of people to an organization (Flamholtz and Lacey, 1981).

Basically, human resource accounting attempts to identify, quantify, measure, record and disclose human resources in the financial statements of the business. Human resource accounting makes decision making more efficient and effective as it helps in employment, utilizing human resources, transfers, promotion, training, retrenchment, human resource planning, cost-benefit analysis of training, analyze labor turnover and to evaluate long term employee' investment. Human Resource accounting is mainly done to collect cost information related to acquisition, allocation, development and maintenance of human resources. It facilitates human resources valuation and presentation of the same in corporate financial statements. It makes decisions for recruitment, manpower utilization, reallocation, budget controls more effective. As this technique is very important and effective, it is too important to analyse its benefits in the Indian companies.

In the same context the objective of this study are as under:

1. To analyse the method used by Indian companies to measures cost and value of people to organizations.
2. To identify the nature of disclosures on human resources in the annual reports of Indian companies.
3. To compare HRA with Sales, Profitability, Net worth and Earning per share of selected companies of India.

Overview of literature

HRA is the process of identifying, measuring data about human resources and communicating this information to interested parties the major objects of the study is to highlight the major characteristics of HRA along with the practical benefits and difficulties in implementations (Chouhan, 2008; Chandra et.al, 2012). The main benefits

of such accounting are that it grows effective managerial decision making, quality of management, prevents misuse of human resources, increases human asset productivity, improves morale, job satisfaction and creativity, etc. (Islam et.al, 2013; Orens et.al, 2009). The constraints involved are that uncertainty of human resources creates uncertainty in valuation of human resources (HR). Human knowledge and their effort lead the organization towards success (Bullen, 2012). HR are productive resources of an organization. There are only a few people who would deny the fact that people are vital for the effective operation of a company (Wehrich and Koontz, 1994). An educated, skilled and competent workforce is a requirement of all companies in this competitive corporate world. By having competent HR an organisation can provide investors a realistic assurance that their investment is invested in good hands. Because, it is the humans who make decisions and make the necessary works done in order to achieve the success. Caplan and Landekich (1974) emphasized that there is a genuine need for reliable and complete information that can be used in improving and evaluating the management of human resources. Besides, it needs huge money to be invested in the recruitment, selection and training of people. Though in these days people in an organization are often referred to as 'Human Capital' or 'Human Assets', human resources are never shown in the Balance Sheets as a 'Distinct Category' (Wehrich and Koontz, 1994). Great management scientists like Rensis Likert (1967) and his colleagues suggested for a new approach called 'Human Resource Accounting'. The basic objective underlying human resource accounting is to facilitate the effective and efficient management of human resources (Porwal, 1993). As this approach has its own problems, it is not yet accepted all over. It is very tough to quantify the expertise, knowledge and competence of human resource as these matters are not physical assets of a company. Besides, the monetary unit assumption of accounting states that only transaction data that can be expressed in terms of money be included in the accounting records. So, the value of the company employees is not reported in company's financial records, as it cannot be expressed easily in terms of money. Also, information about whether these resources are utilized and managed properly or not is very difficult to express only through disclosures in financial statements. As a result, though companies all over the world are showing their expenses related to human resources in the financial statements, they are not being able to show the expertise of their 'Human Capital' and how these resources are utilized, in the financial statements. For this reason, stakeholders are being deprived of getting important information about the human resources of their organization.

In today's society, the words like 'information economy', 'knowledge-based economy' etc. has become very common. Though the matter of human knowledge is given so much importance these days, it is seen that capital market still relies on financial information (Johanson, Martensson and Skoog, 2001). The reason behind this can be said that as a valuable asset, human resource does not show that much physical evidence. But there is no doubt that through the passage of time, the need for this kind of information is getting much importance. Several studies have suggested that the usefulness of financial statement reports of publicly listed companies had declined and this is creating an information gap between the user and the information provider (Lev, 2001; Ponwell and Schipper, 1999; Episten and Pava, 1993).

Many attempts have been made to reduce this information gap by developing various concepts and measurement models on intangibles, which is not just a recent phenomenon. In the 1960s accounting researchers already started to elaborate on the subject of human resources (Monti-Belkaoui and Riahi-Belkaoui, 1995). Roslender and Finchman (2001) examined that most of the human resource accounting studies engaged in measurement development and utility analysis, strengthening the view of employees as valuable organisational resources.

With the growth of Knowledge-based companies since mid-1980s, it became undeniable that the value of the human resources in these companies often exceeded than the assets shown in their financial statements (Rimmel, 2003). Many authors articulated that the market value of the Knowledge-based companies could be 10 to 100 times its book value. (Brooking, 1996; Stewart, 1997; Edvinsson and Malone, 1997; Sveiby, 1997). From the 1990's, the term intellectual capital is getting much popularity in these knowledge-based companies as well as accounting practitioners (Guthrie, 2001). So, there is no doubt that disclosure on human resources is a burning question these days. To remove this difficulty and to get shareholder's attention, many companies are now reporting on their human resources in a mostly non-financial format in the annual reports voluntarily. These voluntary disclosures are mainly made in the 'Director's Report' section of the annual report

The concept of human capital is not a recent discovery. Its origin dates back to the late seventeenth century when the economists, Sir William Petty first attempted to estimate the monetary value of population of England in 1681. He considered labor as the father of wealth and stressed that it should be included in the estimate of the total national wealth. The credit for recognizing the value of human resources as an asset goes to Paton (1962). When he commented, "in a business a well-organized and loyal personnel may be a more important asset than a stock of merchandise." The fact remains; however, that it was Likert (1967). Social Psychologist, The institute for Social Research, University of Michigan, who first use the term 'human asset' a term since replaced by human resources. Therefore, he originally developed it. Different techniques have been developed to measure the value of human resources. The original cost model of Brummet et al. (1968) suggested to capitalize the firm's expenditure on recruitment, selection, training and development of human resources, amortizing such costs over a period and hence reporting the net investment in human resources in the Balance Sheet under the heading human assets. R.G Barry Corporation of U.S.A during 1968-74 implemented this method for valuation of human resources and reported this information externally. Replacement cost approach was developed by Likert and Flamholtz in 1973. The cost of alternative use of employee is value of human resources as per this approach. Hekimian and Jones (1967) gives an Opportunity Cost Approach based on the principle that human assets will be valued while it is scarce. Hermanson (1964) proposed an adjusted present value model to quantify the value of human capital of a company. He suggested that the amount of future wages payable represents a liability while human resources as an asset in the Balance Sheet. Lev and Schwartz (1971) valued human capital as the present value of future earnings of employee till retirement. Flamholtz (1971) developed Stochastic Rewards Valuation model and determined the value of human assets by aggregating the present value of expected future services of employees. Jaggi and Lau (1974) model considers groups for

valuation rather than individuals. As per Giles and Robinsons (1972) Human Asset Multiplier Model the capitalized value of the company calculated on the basis of price earnings ratio minus net assets are the human resources. Morse (1973) in his net benefit method considers that human resources value is equal to the present value of the gross value of services to be rendered by human beings minus present value of the future payments to human beings. Ogan's (1976) suggested a model known as "Certainty Equivalent Net Benefit Model" that is the extension of net benefit model of Morse. Certainty with which the net benefit in future will accrue to the organization is the value of human resources. Chakraborty (1976) suggested a model for valuation of human resources known as Aggregate Payment Approach. The value of human resources is calculated by multiplying the average salary with the average tenure of the employee. Dasgupta (1978) also gives his total cost concept to value the human resources. Likert (1967), Flamholtz (1972), Myer's and flowers (1974), suggested the non-monetary approaches for assessing the economic value of human resources that measures the human resources not in dollar or money terms rather they rely on various indices or ratings and rankings. Different studies have been conducted time to time. Elias (1972) conducted the first published research concerning the effect of human resource outlay data on stock investment decisions. For this, he selected two hypothetical companies ABC and XYZ operating in the same industry. Two different sets of financial statements were prepared and supplied to the Chartered Financial Analysts, certified Public Accountants and accounting students asking them to choose the company for their investment based on the analysis of the given financial statements. The choice decision of the respondents varied when the HRA information along with the traditional information was supplied. This shows the importance of providing HRA data in addition to conventional data. Gambling (1974) suggested a system dynamics approach to human resource accounting considering an organization as a dynamic system with feedbacks. Flamholtz (1976) carried out an experimental study of the impact of human resource valuation on managerial decision-making. He found significant differences in decisions taken by those who used traditional trait evaluations relative to those who used two types of HRA data. Schwan (1976) studied the effects of human resource cost measures on banker making decision-making. For the purpose of his study, the participants were managers and analysts employed in investment, credit and trust departments of large banks. Schwan found that the inclusion of HRA data in published statements resulted in significantly different ratings of management's preparedness to meet the future challenges and opportunities and statistically different predictions of a firm's 'net income'. Tomassini (1977) in his study concluded that HRA cost estimates caused different managerial preferences in the personnel lay off decision context. Gul (1984) attempted to study the usefulness of human resources turnover cost information for the labor turnover decision making in a sample of Australian Accounting firms. The results of the study concluded that human resource turnover cost information significantly reduced accountant's level of uncertainty and increased their level of relevance and sufficiency. All these studies showed the relevance of HRA information in various decisions. Gupta (1990), Bhatia and Singh, (1992), Rao (1993), Batra and Bhatia (1994), Prakash (1997), Verma (1999), Patra and Khalik (2003), Sonara and Patel (2009) conducted a study to know the current status of human resource accounting in Indian Context. All these studies were conducted to find out the current practices followed by the Indian organizations for HRA. The studies concluded that very few companies come forward for reporting HRA as it is not compulsory for them to disclose

human resources information in their annual reports. The present paper is an attempt to critically review the HRA practices of selected organization with a step forward to rank the organizations based on their extent of disclosure of HRA information. An attempt also been made to rank the items that companies disclosed more and the relevance of such disclosure.

Measurement of Human Resources

There are several methods developed over a period of time for individuals, groups and for valuation of expense center groups. The lists of popular methods used all around the world are enlisted in table-1 as under:

Table 1 Methods to measure Human Resources

For Individuals Value	For Group Value	For expense Centre Group
<p><u>Cost Methods</u></p> <ul style="list-style-type: none"> ❖ Historical Cost method ❖ Replacement Cost method ❖ Opportunity Cost method ❖ Standard Cost method <p><u>Economic Value Approach</u></p> <ul style="list-style-type: none"> ❖ Flamholtz's model of determinants of individual value to formal organizations ❖ Flamholtz's stochastic rewards valuation model ❖ Lev & Schwartz Model ❖ Hekimian & Jones Competitive bidding model ❖ Skills Inventory ❖ Performance Evaluation ❖ Assessment of potential ❖ Attitude measurements 	<ul style="list-style-type: none"> ❖ The Likert & Bowers Model ❖ Brummet, Flamholtz, & Pyle's economic value model ❖ Hermanson's unpurchased goodwill model ❖ Human organizational dimensions method 	<ul style="list-style-type: none"> ❖ Capitalization of Compensation ❖ Replacement Cost Valuation ❖ Original Cost Valuation

Out of the above methods the most common method used by Indian companies is Lev & Schwartz Model which uses the present value of future earnings of the employees. The characteristics of the sample companies are enlisted in table-2 as under:

Table 2 have shown that out of the five sample companies four were using the Lev & Schwartz model for evaluating their Human resources while one company ONGC is using the present value by discounting the estimated earning which is similar to the Lev & Schwartz model.

Table 2 Characteristics of Sample companies (2014)

Name of company	USE of Model	Year of Establishment	Sector	Market Capitalisation	No. of employees	Operating Profit	EPS (R.s)
Infosys Technologies Limited	Lev & Schwartz	1981	Private	31 billion US\$	156688	Rs. 13,381 Crore	13.29
Oil and Natural Gas Corporation Company (ONGC)	the present value by discounting the estimated earnings	1955	Public	Rs 300,682.70 crore	33988	Rs 5,444.89 crore	26
National Thermal Power Corporation Limited (NTPC)	Lev & Schwartz	1975	Public	Rs.118,569.78 Crore	23411	Rs 2,071.63 crore	12.40
KPIT	Lev & Schwartz	1963	Private	Rs. 4,153.46Crore	110.45	Rs. 186.42 million	12.66
Satyam	Lev & Schwartz	1986	Private	Rs.45208 Crore	89,400	Rs. 110.45 Crore	126.8

Research Methodology

The research methodology of this study is divided in following points:

Source of data- The source of data collection is secondary data which is collected from the 5 companies providing the Human resource information in their annual reports.

Sample size- as per the objectives of the research the data were collected from the companies using HRA.

Sampling technique- The sampling technique used is convenient sampling.

Hypothesis- As per the nature of the research two hypotheses were developed regarding the differences in the HRV of companies, company's pairwise difference and the predictors of companies profitability which has shown under the head of data analysis.

Data Analysis

As per the research objective of the paper the secondary data were collected from 5 companies. To identify that whether the difference between selected companies in

disclosing human resource value is significant or not, following hypothesis were developed in step first:

H₀: There is no difference in HRV of selected companies.

H₁: A significant difference exists between the values of HRV of selected companies.

To analyse the data and significant of the hypothesis one sample ANOVA Analysis of were conducted by taking data of HRV from sample companies and by using SPSS-19 software. The results have shown table 3 as under:

Table 3 ANOVA analysis

Descriptive Statistics								
Company (code)	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
INFOYSIS (1.00)	5	40539.20	22494.28	10059.74	12608.86	68469.53	15356.00	72241.00
SATYAM (2.00)	5	10975.27	8805.37	3937.88	41.95	21908.59	1994.20	23645.00
KPIT (3.00)	5	556.06	410.84	183.73	45.94	1066.19	143.98	1159.17
ONGC (4.00)	5	26121.11	1858.05	830.94	23814.03	28428.19	24055.55	28512.04
NTPC (5.00)	5	56242.42	7727.49	3455.83	46647.47	65837.36	47472.60	67742.20
Total	25	26886.81	22879.67	4575.93	17442.55	36331.07	143.98	72241.00

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.976E9	4	2.494E9	19.278	.000
Within Groups	2.587E9	20	1.294E8		
Total	1.256E10	24			

ANOVA on HRV of selected companies have shown a significant main effect of fit level $F_{(24)} = 19.278$, $p > .000$; which revealed that there is a significant difference in the level of HRV of various companies in the given time horizon.

To identify that which pair of the companies have significant difference in the HRV across the period the pair of companies were made and post hoc tukey HSD test were applied with SPSS-19 software to identify the differences across companies. The results have shown in table-4 as under:

Table 4: Post Hoc Tukey HSD test

Multiple Comparisons						
Tukey HSD						
(I) company	(J) company	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	29563.92600*	7193.67881	.004	8037.7442	51090.1078
	3.00	39983.13120*	7193.67881	.000	18456.9494	61509.3130
	4.00	14418.08660	7193.67881	.300	-7108.0952	35944.2684
	5.00	-15703.22000	7193.67881	.226	-37229.4018	5822.9618
2.00	1.00	-29563.92600*	7193.67881	.004	-51090.1078	-8037.7442
	3.00	10419.20520	7193.67881	.605	-11106.9766	31945.3870
	4.00	-15145.83940	7193.67881	.256	-36672.0212	6380.3424
	5.00	-45267.14600*	7193.67881	.000	-66793.3278	-23740.9642
3.00	1.00	-39983.13120*	7193.67881	.000	-61509.3130	-18456.9494
	2.00	-10419.20520	7193.67881	.605	-31945.3870	11106.9766
	4.00	-25565.04460*	7193.67881	.015	-47091.2264	-4038.8628
	5.00	-55686.35120*	7193.67881	.000	-77212.5330	-34160.1694
4.00	1.00	-14418.08660	7193.67881	.300	-35944.2684	7108.0952
	2.00	15145.83940	7193.67881	.256	-6380.3424	36672.0212
	3.00	25565.04460*	7193.67881	.015	4038.8628	47091.2264
	5.00	-30121.30660*	7193.67881	.004	-51647.4884	-8595.1248
5.00	1.00	15703.22000	7193.67881	.226	-5822.9618	37229.4018
	2.00	45267.14600*	7193.67881	.000	23740.9642	66793.3278
	3.00	55686.35120*	7193.67881	.000	34160.1694	77212.5330
	4.00	30121.30660*	7193.67881	.004	8595.1248	51647.4884

*. The mean difference is significant at the 0.05 level.

The multiple comparison between companies (1.00, p1, 2= 0.004<0.05; p1, 3= 0.000<0.05; 3.00, p3, 4= 0.015<0.05; p3, 5= 0.000<0.05; 4.00, p4, 5= 0.004<0.05,) shows that a significant group difference exists on the above variables. In rest of the cases, no significant perceptual difference (p value >.05) has been noticed at 5% level of significance across the different companies.

As per the research objective (to compare HRA with Sales, Profitability, Net worth and Earning per share of selected companies of India) of the paper the secondary data related to HRA, PBDIT, Sales Net worth and EPS were collected from 5 companies. To identify that whether the profitability is dependent upon the HRV and other independent variables, 4 independent variables were included to identify the profitability, subsequently following hypothesis were developed:

H₀: The attributes configuring **for profitability on** various dimension has not influenced by HRA, Sales, Net worth and EPS.

H₁: The attributes configuring **for profitability on** various dimension significantly influenced by HRA, Sales, Net worth and EPS.

To analyse the data and significant of the hypothesis Multivariate Regression Analysis of were conducted with SPSS-19 software in table-5 as under:

Table 5 Multivariate Regression Analysis on dimensions of cultural differences

Descriptive Statistics									
	Mean	Std. Deviation	N						
Profit	7716.0644	9759.30731	25						
HRV	26886.8152	22879.67139	25						
NW	19505.8828	21207.19183	25						
Sal	15744.2280	17145.02850	25						
Eps	46.9456	47.89641	25						
Correlations									
		Profit	HRV	NW	Sales	Eps			
Pearson Correlation	Profit	1.000	.319	.911	.983	.250			
	HRV	.319	1.000	.556	.440	.050			
	NW	.911	.556	1.000	.953	.036			
	Sal	.983	.440	.953	1.000	.206			
	Eps	.250	.050	.036	.206	1.000			
Sig. (1-tailed)	Profit	.	.060	.000	.000	.114			
	HRV	.060	.	.002	.014	.407			
	NW	.000	.002	.	.000	.432			
	Sal	.000	.014	.000	.	.161			
	Eps	.114	.407	.432	.161	.			
N	Profit	25	25	25	25	25			
	HRV	25	25	25	25	25			
	NW	25	25	25	25	25			
	Sal	25	25	25	25	25			
	Eps	25	25	25	25	25			
Variables Entered/Removed a									
Model	Variables Entered	Variables Removed	Method						
1	Sales	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).						
2	HRV	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).						
a. Dependent Variable: Profit									
Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.983a	.967	.966	1809.26476	.967	675.305	1	23	.000
2	.912b	.893	.82	1321.60409	.016	21.105	1	22	.000

a. Predictors: (Constant), Sales
 b. Predictors: (Constant), Sales, HRV

ANOVA c						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.211E9	1	2.211E9	675.305	.000a
	Residual	75289096.526	23	3273438.979		
	Total	2.286E9	24			
2	Regression	2.247E9	2	1.124E9	643.360	.000b
	Residual	38426022.146	22	1746637.370		
	Total	2.286E9	24			

a. Predictors: (Constant), Sal
 b. Predictors: (Constant), Sal, HRV
 c. Dependent Variable: Profit

Coefficients a											
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	-1097.053	495.937		-2.212	.037					
	Sal	.560	.022	.983	25.987	.000	.983	.983	.983	1.000	1.000
2	(Constant)	-32.860	429.995		-.076	.940					
	Sal	.595	.018	1.046	33.968	.000	.983	.991	.939	.806	1.240
	HRV	-.060	.013	-.141	-4.594	.000	.319	-.700	-.127	.806	1.240

a. Dependent Variable: Profit

Excluded Variables c								
Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	HRV	-.141a	-4.594	.000	-.700	.806	1.240	.806
	NW	-.286a	-2.537	.019	-.476	.091	10.972	.091
	Eps	.049a	1.298	.208	.267	.958	1.044	.958
2	NW	-.099b	-.933	.361	-.199	.068	14.706	.068
	Eps	.043b	1.590	.127	.328	.955	1.047	.772

a. Predictors in the Model: (Constant), Sal
 b. Predictors in the Model: (Constant), Sal, HRV
 c. Dependent Variable: Profit

Collinearity Diagnostics a								
----------------------------	--	--	--	--	--	--	--	--

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	Sal	HRV
1	1	1.684	1.000	.16	.16	
	2	.316	2.308	.84	.84	
2	1	2.456	1.000	.05	.06	.05
	2	.321	2.766	.41	.83	.03
	3	.223	3.316	.54	.12	.92

a. Dependent Variable: Profit

The final Regression model with 2 independent variables (sales and HRV) explains almost 82% of the variance of accounting disclosure of Sustainable items. Also, the standard errors of the estimate has been reduced to 1321.60409, which means that at 95% level, the margin of errors for any predicted value of accounting disclosure of Sustainable items can be calculated as ± 2590.344 (1.96×1321.60409). The two regression coefficients, plus the constraints are significant at 0.05 levels. The impact of multi colinerarity in the 2 variables is substantial. They all have the tolerance value less than 0.806, indicating that only over 19.4% of the variance is accounted for by the other variables in the equation.

The ANOVA analysis provides the statistical test for overall model fit in terms of F Ratio. The total sum of squares (2.286E9) is the squared error that would accrue if the mean of Job Satisfaction has been used to predict the dependent variable. Using the values of Sales and HRV this errors can be reduced by 98.33% ($2.247E9/2.286E9$). This reduction is deemed statistically significant with the $F_{(2,24)}$ ratio of 643.360 and significance at level of 0.000. With the above analysis it can be conclude that only three variables i.e., Sales and HRV explains the Profitability of the selected companies.

Conclusion

For the current study the data of 2 public and 3 private companies were used which revealed that the companies in India were disclosing the HRV in their annual report. For this purpose the Lev & Schwartz model is being used foremost by public and private both sector companies. Since the different companies were selected from different sector there is a huge difference in the number of the employees, profit and EPS. As a main analysis it was found that the Human Resource values of the selected companies have shown significant difference over the period of study and the differences between the companies were also found significant. Finally the paper uncovers the fact that profitability of the companies is dependent upon two factors sales and HRV. Thus this study revealed the importance of HRV as a major and significant factor of profitability.

References

AAA Committee. (1973). Report of the AAA Committee on Accounting for Human Resources. The Accounting Review, Supplement to, 48, 189.

Batra, G. S. & Bhatia, B. S. (1994). Human Resource Valuation: A Study of Indian Corporate Sector. Journal of Accounting and Finance, 8(1), 43-57.

Brooking, A. (1996). *Intellectual Capital: Core Asset for the Third Millennium Enterprise*, International Thomson Business Press, London, UK.

Bullen, Maria L., Eyler, Kel-Ann. (2012). Human resource accounting and international developments: implications for measurement of human capital. *Journal of International Business and Cultural Studies*, pp 1-16.

Caplan, E.H. and Landekich, S. (1974), *Human Resource Accounting: Past, Present and Future*, NAA.

Chakraborty, S. K. (1976). *Human Asset Accounting: The Indian Context in Topics in Accounting and Finance*. Oxford University Press.

Chandra, B., Goswami, S. and Chouhan, V., (2012). Investigating Attitude towards On-Line Advertising on Social Media – An Empirical Study. *Management Insight, SMS Varanasi*, VIII (1), June, pp 1-14.

Chouhan, V., (2008). Don't forget ABC: Work is not Completed. *Pacific Business Review*, July-Sep, 1(2), pp 77-81

Dasgupta, N. D. (1978). *Human Resource Accounting*. New Delhi: Sultan Chand and Sons.

Edvinsson, L. and Malone, M.S. (1997). *Intellectual Capital: Realizing Your Company's True Value by Finding its Hidden Brainpower*, Harper Business, New York, NY.

Elias, N. (1972). The Effects of Human Asset Statement on Investment Decision: An Empirical Research in Accounting. *Journal of Accounting Research (Supplement Empirical Research in Accounting Selected Studies)*, 10, 215-233.

Episten, M.J. and Pava, M.L. (1993), *The Shareholder's Use of Corporate Annual Reports*, IJAI Press, Greenwich, USA.

Flamholtz Eric G. (1974). Human Resource Accounting: A Review of Theory and Research, *the Journal of Management Studies*.

Flamholtz, E. G. & Likert, E. (1973). HRA: Measuring positional replacement costs. *Human Resource Management* 12(Spring), 8-16.

Flamholtz, E. G. (1971). A Model for Human Resource Valuation: A Stochastic Process with Services Rewards, *Accounting Review*, 46(2), 253-267.

Flamholtz, E. G. (1972). Towards a Theory of Human Resource Value in Formal Organizations. *The Accounting Review*, 48(4), 666-678.

Flamholtz, E. G. (1976). The Impact of Human Resource Valuation on Management Decision: A Laboratory Experiment. *Accounting, Organization and Society*, 1, 153-65.

Flamholtz, E.G. (1999). *Human Resource Accounting – Advances in Concepts, Methods and Applications*, Kluwer Academic, Boston, MA.

Gambling, T. E. (1974). A System Dynamic Approach to Human Resource Accounting. *The Accounting Review*, 49(3), 538-546.

Giles, W. J. & Robinson, D. F. (1972). *Human Asset Accountants*. Institute of Personnel Management and Institute of Cost and Management Accountants, London.

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.

Hekimian JS (1967). Put People on Your Balance Sheet. *Harv. Bus. Rev.*, pp. 105-108.

Hermanson RH (1964). Accounting for human assets, Michigan State University Occasional Paper No. 14, Bureau of Business and Economic Research, East Lansing, Michigan.

Islam, M. A., M. Kamruzzaman, et al. (2013). Human Resource Accounting: Recognition and Disclosure of Accounting Methods & Techniques. *Global Journal of Management and Business Research*, 13(3) pp. 4-7.

Islam, Md. Amirul, Kamruzzaman, Md. & Redwanuzzaman Md. (2013). Human Resource Accounting: Recognition and Disclosure of Accounting Methods & Techniques. *Global Journal of Management and Business Research, Accounting and Auditing*, 13(1), pp. 1-10

Jaggi B. A. (1974). Towards a Model for Human Resource Valuation. *Acc. Rev.*, pp. 323-325.

Jaggi, B., and S. Lau. (1974). Toward a Model for Human Resource Valuation. *The Accounting Review*, 321-29.

Johanson, U., Martensson, M. And Skoog, M. (2001), Mobilizing Change Through Management Control of Intangibles, *Accounting, Organizations and Society*, 26(7-8), pp. 715-733.

Lev B, Schwartz A (1971). On the use of Economic Concept of Human Capital in Financial Statements. *Acc. Rev.*, pp. 102-105.

Lev, B. & Schwartz, A. (1971). On the use of the Economic Concept of Human Capital in Financial Statements. *Accounting Review*, 46(1), 103-112.

Lev, B. (2001), *Intangibles: Management, Measurement and Reporting*, The Brookings Institution, Washington D.C., USA.

Likert, R. (1967), *The Human Organization: Its Management and Value*, McGraw-Hill Book Company, New York.

Likert, R. (1967). *The Human Organization: In Management and Value*. McGraw Hill Book Co, New York, 83-84.

Monti-Belkaoui, J. and Riahi-Belkaoui, A. (1995), *Human Resource Valuation: A Guide to Strategies and Techniques*, Quorum Books, West port, USA.

Morse, W. J. (1973). A Note on the Relationship between Human Asset and Capital. *The Accounting Review*, 37 (3), 589-593.

Myers, C. A. (1976). Human Resources Accounting. *Monthly Labour Review*, Vol. 99, Issue 4, April.

Myers, M.S. and Flowers (1974). A framework for measuring human assets. *California Management Review*, 16, summer, pp. 5-16.

Ogan, P. A. (1976). Human Resource Value Model for Professional Service Organizations. *The Accounting Review*, 51(2), 306.

Orens, R., Aerts, W., Lybaert, N., 2009. Intellectual capital disclosure cost of finance and firm value. *Management Decision* 47 (10), 1536-1554.

Orens, Raf. Walter Aerts, Nadine Lybaert. (2009). Intellectual capital disclosure, cost of finance and firm value, *Management Decision*, 47(10), pp. 1536-1554

Paton, W. (1962), *Accounting Theory*, Accounting Studies Press, Chicago, IL

Patra, R. & Khatik, S. K. (2003). HRA Policies and Practices: A Case Study of BHEL Limited, Bhopal, India. *International Journal of HRD and Management*, 3(4), 285-296.

Ponwell, G. And Schipper, K. (1999), Implication of Accounting Research for the SEC's Consideration of International Accounting Standards for U.S. Securities Offerings, *Accounting Horizons*, 13(3), pp. 259-280.

Porwal, L. S. (1993), *Accounting Theory*, Second Edition, Tata McGraw-Hill Publishing Company, New Delhi.

Prakash, O. (1997). Human Resource Accounting Practices in Bharat Heavy Electricals Limited. *Finance India*, 11(1), 92-94.

Rao, D. P. (1993). Human Asset Accounting: An Evaluation of the Indian Practices. *ASCI Journal of Management*, 22. 37- 42.

Rimmel, G. (2003). Human Resource Disclosures – A Comparison of Information, Providers and Users in Two Corporations, Presented in the 17th Nordic Conference on Business Studies, Scandinavian Academy of Management – NFF 2003.

Roslender, R. and Fincham, R. (2001). Thinking Critically about Intellectual Capital Accounting, *Accounting, Auditing and Accountability Journal*, Vol. 14, No. 4, pp. 383-398.

Schwan, E. S. (1976). The Effects of Human Resource Accounting Data on Financial Decisions: An Empirical Test. *Accounting, Organization and Society*, 1(2), 219-237.

Sonara, C. K. & Patel, A. (2009). Valuation and Reporting Practices of Human Resource Accounting in India. *The Management Accountant*, 44, 16-19.

Stewart, T.A. (1997), *Intellectual Capital: The New Wealth of Organizations*, Nicholas Bready Publishing Ltd., London, UK.

Sveiby, K.E. (1997), *The New Organizational Wealth and Measuring Knowledge-Based Assets*, Berrett-Koehler, San Francisco, USA.

Tomassini, L. A. (1977). Assessing the Impact of Human Resource Accounting: An Experimental Study of Managerial Decision Preferences. *The Accounting Review*, 52(4), 904-914.

Verma, S. B. (1999). HRA Practices in Public Sector Undertakings in India. *The Management Accountant*, 34(8), 575-582.

Wehrich, H. and Koontz, H. (1994), *Management: A Global Perspective*, Tenth Edition, McGraw-Hill International Editions, New York.