

## IMPACT OF HUMAN RESOURCE ACCOUNTING ON GROWTH ASPECTS OF THE SELECTED COMPANIES IN INDIA

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### **Abstract:**

The success of an organization depends on how best the scarce physical resources are utilized by the Human Resources. Therefore, the efficient and effective utilization of inanimate resources depends largely on the quality, calibre, skills, perception and character of Human Resource. The term Human Resource at macro level indicates the sum of all the components such as skills, creative abilities, innovative thinking, intuition, imagination, knowledge and experience possessed by all employees. An organization possessing abundant physical resources may sometimes miserably fail due to lack of right people i.e., Human Resources, to manage its affairs. Thus, the importance of Human Resources cannot be ignored. Like all physical and intangible assets, these also should be accounted. Unfortunately, till now no generally accepted system of accounting for this important asset, viz., the Human Resource has been evolved. Also, there is no provision inserted in Companies Act 2013, regarding Human Resource Accounting. Therefore, it is not mandatorily adopted by the companies in India. Only few companies have been constantly accounting and valuing human resources in their financial statement for several years. Most of the companies use Lev and Schwartz model to value human resources which is based on the present value of the future earnings of the employees. This article seeks to show the impact of investment in employees on growth aspects of the selected companies.

**Key Words:** Human Resource Accounting, Lev and Schwartz model, intangible assets.

## Introduction

The concept of Human Resource accounting came into existence during the early and mid 1980's when behavioural scientists criticised the standard accounting system for its failure to value the human wealth of the organization. The significance to mention the value of human assets in annual reports were recognized in the early 1990s when there was a major increase in employment in firms in service, technology and other knowledge based sectors. In the firms in these sectors, the intangible assets, especially human resources, contributed significantly to the building of shareholder value. The Companies Act, 2013 does not provide for disclosure on human assets in the financial statements of the companies hence the issue is to be addressed is how to measure and report the economic value of the people to the organization. Even though, a growing trend towards the measurement and reporting of human.

Resources particularly in public sector is noticeable during the past few years. ONGC, CCI Ltd., Infosys Technologies Ltd., Rolta Ltd., HPCL, SAIL, BHEL have been started disclosing some valuable information regarding human resources in their financial statements.

## The Concept of Human Resource Accounting

Human Resource Accounting (HRA) is the process of identifying, recording and reporting the Investments made in the Human Resources of an Organization that are presently not accounted for in the conventional accounting practices. The effort to quantify the value of Human Resources helps the management to cope up with the changes in its quantum and quality so that equilibrium can be achieved in between the required resources and the benefit derived from such resources.

The American Accounting Association (1973) defined Human Resource Accounting as the process of identifying, measuring and communicating information about human resources in order to facilitate effective management within an organization. This definition considers HRA as the process of recognition and the quantification of human resources for the purpose of assisting the effective management of an organization.

Flamholtz (1985) gave more specific definition of HRA, which refers HRA as the process of measuring the cost incurred by business firms and other organizations to recruit, select, hire,

train and develop human asset. This definition gives a view as to what expenditure on the human resources should be recognized for valuation and reporting purposes. In other words, Flamholtz (1985) regards HRA as involving the measurement of economic value of people to organizations. It is therefore concluded that HRA is the measurement process which recognizes cost and value of employees in the financial statements of an organization, as an intangible asset, so that the true value of the organization can be presented thereby assisting the various users of the financial statements in making their respective decisions.

### Need for HRA

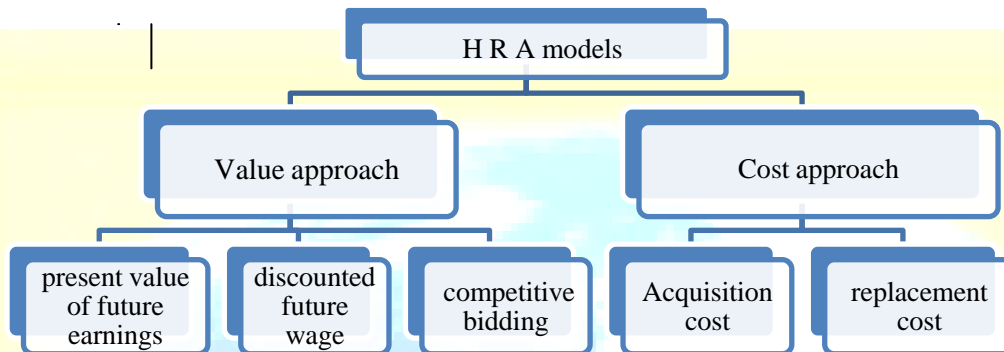
HRA is not useful to the management solitarily in achieving its economic goals. It could also be the source of important information for investment decision making. The inclusion of appropriate human resource information in published financial statements would make such statements more meaningful in predicting future performance which is, of course, the principal concern of investors (Jawahar Lal, 2009).

In today's dynamic business environment, firms invest heavily in human capital. The problem however, is that these investments are either immediately expensed in the financial statement or amortised and therefore are not fully reflected in the balance sheet. Intellectual capital resources (including human capital) are increasingly considered as an important factor in the successful achievement of organizational objectives (Guthrie and Petty, 2000). For stakeholders, to fully understand an organization and the effectiveness of its managers, it is therefore important that corporate reports adequately reflect all resources used and developed to boost up the organization's achievement (Boedker et al (2008).

It is true that human life is uncertain and at any time we may lose a life. But, shouldn't a company recognize the car it won, in the balance sheet even though there is a risk of losing or damaging the car? A corporation that has ship running on the sea may be sunk at any moment. Still we find the ship in the company's financial statements. So, why not human skills or expertise be recognized in the financial reports?

## Models of HRA

For valuing human resources, different models have been developed. Mainly, there are two approaches to HRA. Under the cost approach, also called human resource cost accounting method or model, there is a) Acquisition cost model and b) replacement cost model. Under the value approach there are: a) present value of future earnings method, b) discounted future wage model, c) competitive bidding model.



## Models of HRA

### Brief Introduction of the Companies under Study:

#### 1. Oil and Natural Gas Corporation Ltd.(ONGC)

It is an Indian multinational oil and gas company headquartered in Dehradun, India. It is a Public Sector Undertaking (PSU) of the Government of India, under the administrative control of the Ministry of Petroleum and Natural Gas. It is India's largest oil and gas exploration and production company. It produces around 69% of India's crude oil (equivalent to around 30% of country's total demand) and around 62% of its natural gas. It has been ranked 357<sup>th</sup> in the fortune global 500 list of the world's biggest corporations for the year 2012. It was founded on 14 Aug, 1956 by Government of India, which currently holds 68.94% equity stake.

#### 2. Infosys Technologies Ltd.

It is an Indian multinational corporation that provides business consulting, information technology, software engineering and outsourcing services. It is headquartered in Bangalore, Karnataka. It is the second largest India based IT Services Company by 2014 revenues. On 15 February, 2015, its market capitalisation was Rs.263,735 crores making it India's sixth largest publicly traded company.

### **3. Hindustan Petroleum Corporation Ltd. (HPCL)**

It is an Indian state-owned oil and natural gas company with its headquarters at Mumbai. It has been ranked 260<sup>th</sup> in the Fortune Global 500 rankings of the world's biggest corporations (2013) and 4<sup>th</sup> among India's Companies for the year 2012. It has about 25% marketing share in India among PSUs and a strong marketing infrastructure. The President of India owns 51.11% shares in HPCL.

#### **Statement of Problem- An Overview**

It is basic need of present time to improve productivity that can be improved by the human force. Hence, to encourage these resources it is necessary to account them and take progressive decision for them. Therefore, it is essential to collect and report the human resource information which is useful for different types of users. In traditional accounting practices, human resource, a vital asset also did not find its place. The expenses incurred in respect of selection, layoff, training, promotion etc of employer are treated as revenue expenditure. It is argued of late that, such expenditures yield benefits to an enterprise in the form of service rendered by the manpower hence such expenditure should be capitalized and shown in the balance sheet. Since, the Companies Act, 1956 does not include any provision regarding disclosure of human assets in the financial statements of the companies hence, the issue of measuring the economic value of the people of the organization remains unattended. And further no provisions regarding disclosure of HR in financial reporting have been made in the new Companies Act, 2013. For this purpose, an attempt has been made to highlight the impact of HRA on growth aspects of the selected companies in India. This study will help in suggesting the effectiveness of HRA and its effects on organizational success.

#### **Objectives of the study**

1. To study the HRA practices adopted by the selected companies.
2. To establish relation between HR value and net profit.
3. To make comparative analysis using HRA dimensions between companies under study.
4. To establish relation between HR cost and net profit.
5. To analyze the impact of HRA on the growth aspects of the selected companies.

### Hypotheses of the study

H<sub>01</sub>: There is no positive relationship between HRV and HRC.

H<sub>a1</sub>: There is positive relationship between HRV and HRC.

H<sub>02</sub>: There is no significant association between HRA practices and growth of the selected companies under study.

H<sub>a2</sub>: There is significant association between HRA practices and growth of the selected companies under study.

### Research Methodology

#### Period of the study:

The present study aims at studying the impact of HRA on growth aspects of selected companies in India which will be mainly based on secondary data that will be collected from the annual reports of the selected companies in India. The proposed study covers a period of three years from 2010-11 to 2012-13.

#### Scope of the Study:

Very few researches have been undertaken in this field as it is an emerging trend in contemporary accounting. Public Limited companies constantly disclosing HR values in their annual reports for the past few years have been selected for the study.

The companies selected are:

ONGC Ltd. (Dehradun)

Infosys Technologies Ltd. (Bangalore)

HPCL (Mumbai)

#### Universe of the Study:

There are some Public Limited Companies in India which are practicing HRA. Amongst these, the companies which are valuing their human resource by adopting a particular model and constantly reporting such value in their annual reports for the past few years are taken as sample for the present study.

**Universe:** It consists of all public sector companies practicing HRA in India.

**Sample:** For the present study, 3 public sector companies have been selected. Out of these one is from IT sector named Infosys Technologies Ltd. and two are from manufacturing sector which are ONGC Ltd., HPCL. The selected companies have been constantly practicing HRA for the past few years which form the basis of their selection.

**Sampling Technique:** Judgemental sampling.

**Method of Data Collection:**

This research is based on secondary data which will be collected from the annual reports of the companies, websites and books.

**Tools of Data Analysis and Hypothesis Testing:**

Both statistical and financial tools have been used for testing hypothesis and data analysis. Those are:

- Correlation coefficient
- Tables
- Charts

**Analysis and Interpretation**

The employees of an organization possess knowledge and skills necessary to perform useful functions and achieve the firm's goals and objectives. In essence, the employees contribute in no small measure in generating income for the firm. The employees transform physical resources of the firm so as to add value. The results of this transformation through human resources are reflected in the different factors viz, net sales, net profit, value addition etc. of the company.

**Table 1: Performance of the Companies under Study**

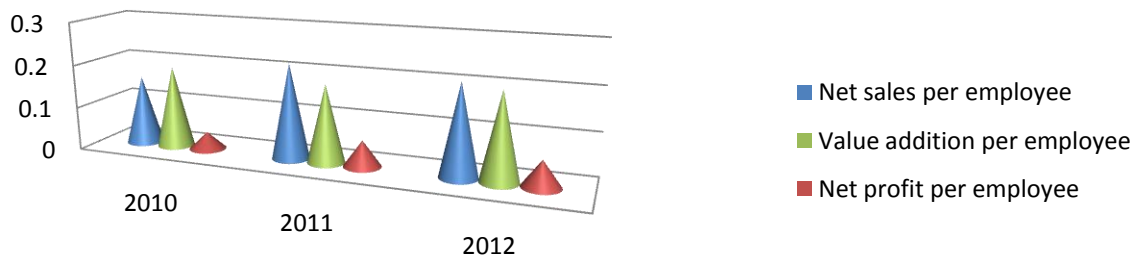
Particular	Infosys Technologies Ltd. (in cr.)			HPCL ( in cr.)			ONGC (in millions)		
	2010	2011	2012	2010	2011	2012	2010	2011	2012

s									
Net sales	21140	25385	31254	142396. 49	188130. 95	215675.4 9	717457.6 7	765150.9 4	830053.3 3
Net profit	5755	6443	8470	1539.01	911.43	904.71	189240.0 2	251229.2 2	209257
Value addition	25031	20935	30960	10017.9 4	11824.3 0	13153.16	100152	112021	127046
No. of employees	130820	113796	149994	11248	11226	11007	33273	32909	32923

**Table 2: Per Employee Performance of the Companies under Study**

Particulars	Infosys Technologies Ltd. (in crores)			HPCL (in crores)			ONGC Ltd. (in millions)		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
Net sales(per employee)	0.16	0.22	0.21	12.68	16.76	19.59	21.57	23.25	25.21
Net profit(per employee)	0.04	0.06	0.06	0.13	0.08	0.08	5.68	7.63	6.36
Value added(per employee)	0.19	0.18	0.20	0.89	1.05	1.19	3.01	3.40	3.85

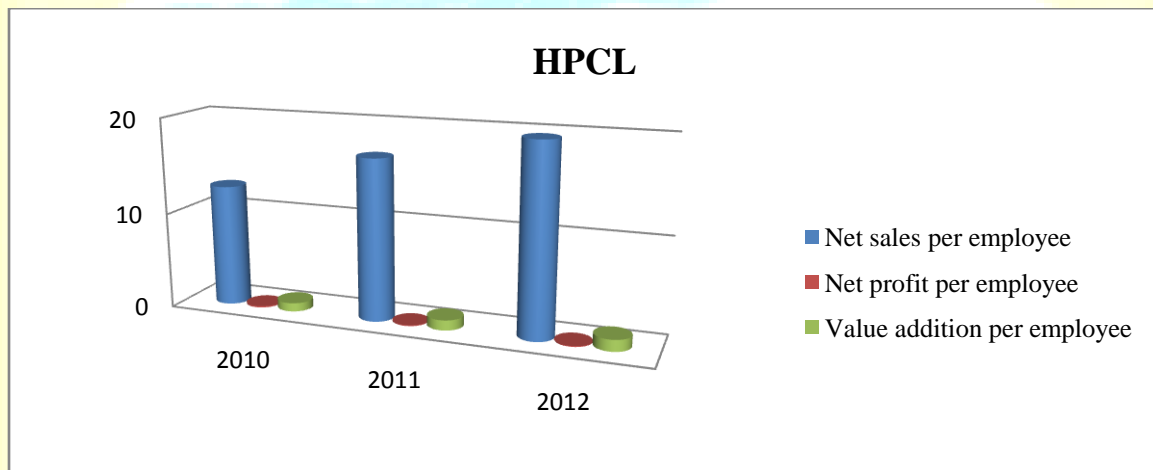
**INFOSYS Ltd.**



**Figure 1: representing the net sales, value addition, and net profit per employee.**

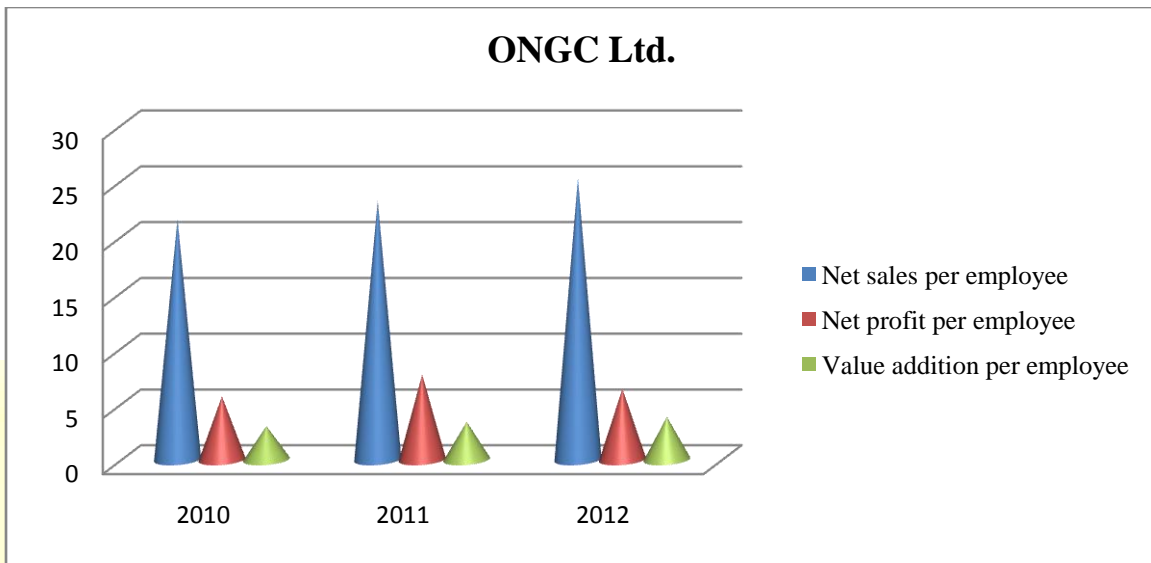


The above diagram depicts that net sales per employee has increased from Rs.0.16 crore to Rs.0.22 crore. The reason being that Infosys Technologies Ltd. considers its human resources as its most valuable asset and has been continuously investing in this asset through systematic and well-planned programmes to make it up to date with latest technologies and processes. But, there is not much change in net sales per employee as can be seen in 2012 i.e, Rs.0.21, with increase in number of employees to 149994 due to no expenditure on training of employees during this year. Also, from 2011 to 2012, an increasing trend can be seen in value addition per employee i.e, from Rs. 0.18 crore to Rs.0.20 crore, with increase in number of employees. The reason could be the effective recruitment and better employer employee relationship in the company for the said years. Also not much variation can be seen in the said years in net profit per employee.



**Figure 2: representing the net sales, net profit and value addition per employee**

The above chart shows that net sales per employee has increased from Rs.12.68 crore to Rs.19.59 crore in the period under study. This is because HPCL considers its human resources as its most valuable asset and has been continuously investing on its human resource in a systematic and well-planned manner to make it aware and well versed with latest technologies and processes. But, not much variation can be seen in net profit per employee and value addition per employee, i.e, Rs.0.13 crore to Rs. 0.08 crore and Rs. 0.89 crore to Rs.1.19 crore, respectively in the period under study. The reason may be increased cost of production.



**Figure 3: representing the net sales, net profit and value addition per employee**

The above chart represents that net sales per employee and value addition per employee is increasing i.e, from Rs.21.57 million to Rs.25.21million and Rs. 3.01 million to Rs. 3.85 million, respectively in the period under study. This reason could be better training, economies of scale, continuous emphasis on skill based and multi-skill training programmes. Also to note that there is slightest decrease in the net profit per employee in the year 2012, i.e, from Rs. 5.68 million to Rs. 6.36 million. This may be due to increased market competition.

### Relationship between HRV and Net Profit

Every organisation aims at increasing its profits which inturn helps in diversifying the business. The following table shows the net profit and HRV of employees of the selected companies for the said years.

**Table 3: HRV and Net Profit of selected companies for the period under study**

Particulars	Infosys Technologies Ltd. (in cr.)			HPCL (in cr.)			ONGC (in millions)		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
Years→	2010	2011	2012	2010	2011	2012	2010	2011	2012

Net profit	6823	6219	8316	18493	2141	25287	189240	251229	209257
					2				
HRV	13510	113287	12571	1539.0	911.	904.71	489113	493635	497137
	5		7	1	43		.1		.3

HR :Human Resource, HRV: Human Resource Value, HRC: Human Resource Cost, Source: Annual Reports of ITL,HPCL Ltd, ONGC Ltd.

There is positive correlation between net profit and HRV of the employees of the selected companies i.e,  $r=0.766$ , in case of Infosys Technologies Ltd.,  $r=0.0612$  in case of HPCL, and  $r=0.99$  in case of ONGC Ltd. Hence, it can be illustrated that increase in the value of human resources may increase the net profit of the company. The company can achieve its level of excellence through investing in its human resources, which are the backbone of all business activities. The expenditure on employees may increase the efficiency of employees and they yield income to the company.

#### Relationship between HRC and HRV:

Every asset should yield income to the owner and it is also incurring some costs. In this phenomenon human resource is the most important intangible assets for every organisation. For acquiring, training and developing, or replacing its human resource it incur some costs.

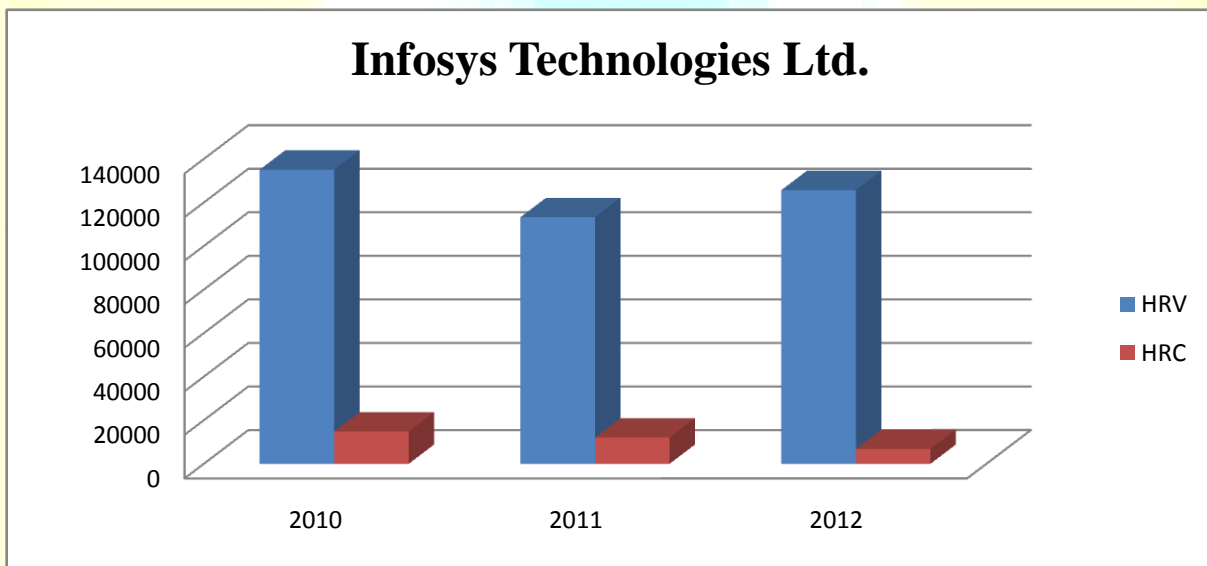
In respect of incurring costs, the organisation is also valuing its human resource for the sake of interested parties. The following table shows the HRC and HRV of the employees of the selected companies for the period under study. For this purpose  $(HRC/HRV*100)$  and  $(HRV-HRC)$  formula has been analysed:

**Table 4: HRV and HRC of selected companies for the period under study**

Particulars↓	Infosys(in cr.)			HPCL(in cr.)			ONGC(in millions)		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
HRV	135105	11328	12571	18493	21412	25287	489113.	49363	497137.

		7	7				1	5	3
<b>HRC</b>	14856	12093	6831	2017	1583	2526	67282	67960	103302
<b>% of HRC in HRV</b>	11	10.67	5.43	10.91	7.39	9.98	13.76	13.77	20.78
<b>Net HRV</b>	120249	10119	11888	16476	19829	22761	421831.	42567	393835.
		4	6				1	5	3

Figure 4: representing HRV and HRC of Infosys Technologies Ltd.



The above chart highlights the net human resource value to total human resource cost. It is clear from the chart that in the year 2011, the human resource cost is decreasing i.e., from Rs.14,856 crores to Rs.12,093 crores, hence the human resource value is also showing decreasing trend, i.e. from Rs. 1,35,105 to Rs.1,13,287. The reason may be less expenditure on training and development of employees, less recruitment, no increment in salary and bonus. Also, an increasing trend can be seen in the human resource value i.e., from Rs. 1,13,796 crores to Rs.1,25,717 crores in the year 2012, while human resource cost has decreased to Rs. 6,831 crores. The reason here could be effective cost management, economies of the scale, technology, innovation etc. Overall, it can be concluded that there is an immediate link between the human resource cost and human resource value of the company. If the human resource cost will

decrease with increase in human resource value, it shows the good sign for the company and it also can be concluded that the HRV contribution to the Infosys technologies ltd. is remarkable. Correlation between human resource value and human resource cost,  $r = 0.99$ , which is positive as well as significant.

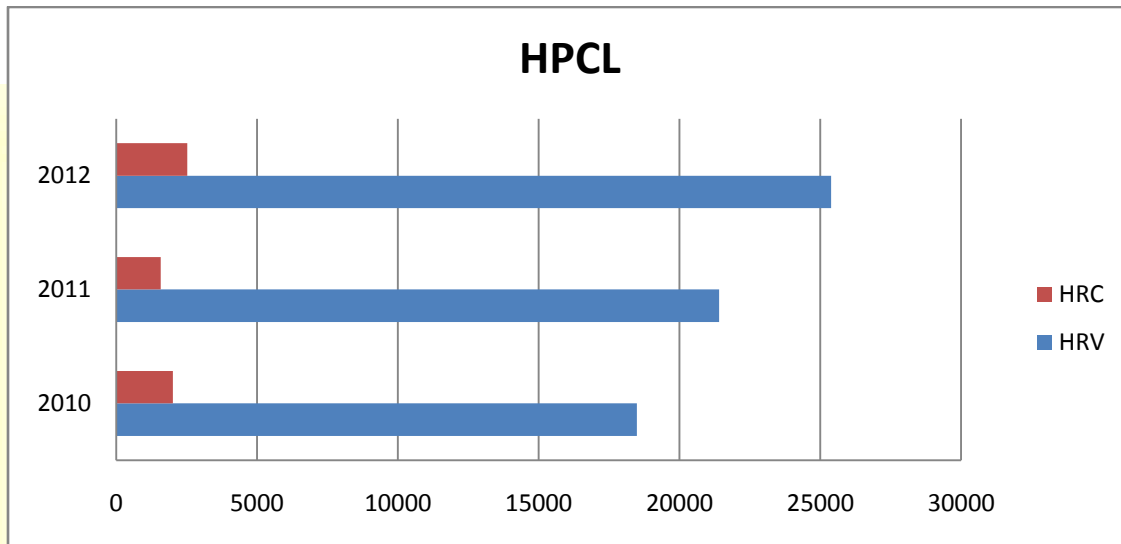
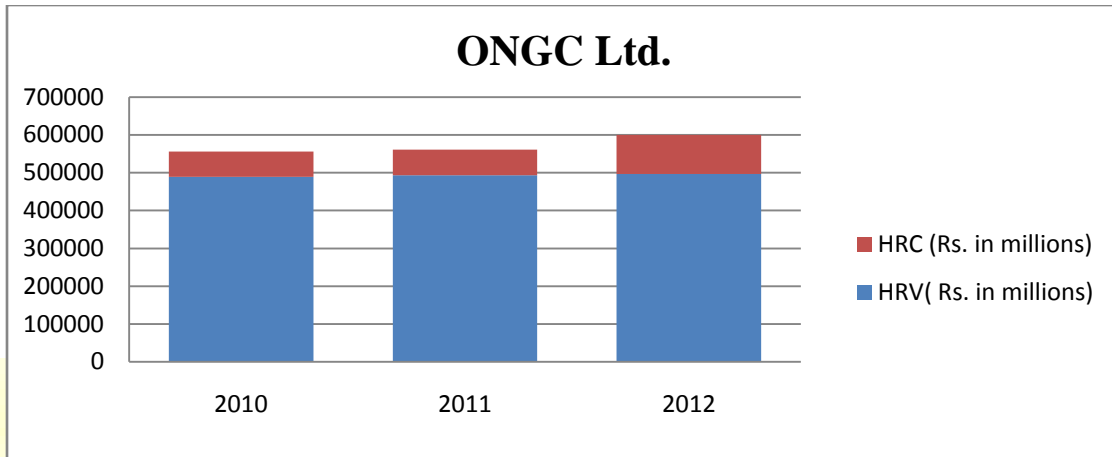


Figure 5: representing HRC and HRV of HPCL

The above chart depicts the increasing trend of human resource value in the said years, i.e, from Rs. 18,493 crores to Rs. 25,287 crores . But human resource cost has decreased in the year 2011, from Rs. 2,017 crores to Rs. 1,583 crores . The reason may be less expenditure on training and development of employees, less recruitment, no increment in salary and bonus. While, in the year 2012, the human resource cost has increased to Rs. 2,526 crores. The reason could be explained as due to huge investment on employees. It can also be seen that share of HRC in HRV is very less. This could be explained by effective cost management, economies of the scale, technology, innovation etc. It can be concluded that the HRV contribution to the HPCL is remarkable.

Correlation between human resource value and human resource cost ( $r_3$ ) = 0.84, which is positive as well as significant.



**Figure 6: representing HRV and HRC of ONGC Ltd.**

The above charts explains that with increase in the human resource cost , there is increase in the human resource value i.e, from Rs. 4,89,113.1 millions to Rs. 4,97,131.3 millions. But the share of HRC in HRV is very less. The reason could be the effective cost management, economies of the scale, technology, innovation etc.

Correlation between human resource value and human resource cost,  $r = 0.28$ , which is positive as well as significant

### CONCLUSION

- Manpower costs forms the major element in operating cost. Those companies who could control these costs and use the workforce optimally become the ultimate winners with crowning glory.
- It also helps the management to determine how far profits are utilised for investment in people.
- HRV has been increasing consistently over the study period in the selected companies.

This indicates the best HR practices adopted by the selected companies.

- It can also be concluded that HRA has positive impact on growth aspects of selected companies as there is positive relation between HRV and Net Profit. Also, with increase in value of employees, net sales per employee and value addition per employee has also increased.

- The selected companies have achieved their level of excellence by increasing their sales through investing in their human resource, which are at the back of every activity, every technology and every innovation.
- Also, it can be concluded that better employer- employee relationship, training and huge investment on employees may result into increase in value of employees and as a result increase in profits and value additions to the companies.
- It is found that ONGC Ltd. has been continuously recognizing the potential of its human resources in providing competitive advantage and considers its employees as most valuable resource. Therefore, it is achieving highest sales, net profit and value additions in the period under study.

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