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CHAPTER -2

REVIEW OF LITERATURE

2.1 INTRODUCTION

In the view of limited literature available on Human Resource Accounting and also due to over increasing wants for human resource in promoting productive resource, employment and economic development, the present study – “Human Resource Accounting and its Application in Selected Industries - An Analytical Study” assumes importance.

The study is unique in nature as no such organized effort is put in so far in the academic circulars, except a couple of suggestions in the form of definitions and research articles published by the scholars.

It is found from the analytical study of the existing literature that no serious attempts have been made to critically analyse and evaluate the existing HRA practices in the industry with regard to certain variables.

2.2 ORIGIN OF HRA

Human Resource Accounting (HRA) is not a recent discovery, as it is implied in writings of some current economists. Its origin dates back to the late seventeenth century, when the economists, Sir William Petty (1623 – 1691) first attempted to estimate the monetary value of the population of the England in 1687. Sir William Petty considered labour as “the father of wealth” and as such, he stressed that it should be included in the estimate of the total national wealth. Petty’s method of the calculation of the value of stock of human capital was quite
simple. From the estimate of national income in 1691, which was about £40 million, he deducted £15 millions property income. The balance of £25 millions representing the wage bill was then capitalized in perpetuity at the market rate of interest of 6%. This had given Petty a value of human capital of £417 millions. With the estimated population of England at that time of 6 millions and its labour force of 3 million, William Petty found the average per capita of both the population and the labour force to be £69 millions and £138 millions respectively. Petty’s estimate of the value of human capital had soon helped him to use the nation to demonstrate the power of England, the economic effect of migration, the money value of human life destroyed in war and monetary loss to the nation owed to death.¹

Among the first group of economists such as Lean Walras (1834-1910), Alfred Marshal (1842-1924) and Irving Fisher. Walras considered human beings like land, to be natural and imperishable capital. Marshal placed more emphasis on the intrinsic value of man. Irving Fisher conceived man as a wealth in his own right. He described man as a useful appropriated material object similar to other physical objects. Further, he stressed that man produces benefits to himself and the owner for whom he works.²

Among the second group, on the other hand some economists such as Adam Smith (1723-1990), Jean Baptisk Say (1767-1832), Nassau Senior (1790 -1864), Fredrich Lirst (1789 -1846), & John Stuart Mill (1806-1873). This group disputed the proposition that man himself is a capital. They argued that man is only capital by Virtue of the skills and knowledge he acquires through a pre-arranged systematic training.
Adam Smith, Jean Baptisk Say and Nassau Senior declare that the acquisition of talents by a person through education, study and apprenticeship will involve real expenses as fixed capital to include intergenerational acquired and natural skills, dexterity, Judgement and accumulation of all past discoveries, inventions and improvements. John Strut Mill considered wealth to exist not in the human beings themselves but in their acquired capabilities symbolized in the work they produce. He also stressed that man is not wealth per se but the purpose for which wealth exists. ³

HRA is an information system that tells the management what changes over time are occurring to the human resources & the business.

HRA emphasizes as the following significant points:-

(i) HRA is a sub system of the total accounting system, which in turn, is a part of the told “Management information system.”

(ii) It is the identification, measurement, recording and reporting of costs and value associated with human resources of an organization.

(iii) It should not be considered as an isolated technique, Joint efforts by accountants, behavioural scientists and personnel managers are desirable for the development of a well-defined theory of HRA.

2.2.1 Emergence of HRA

HRA was a common practice among most of the firms in the American Deep South prior to civil war. However, the Bellum objectives of HRA were not the same as today’s objectives of facilitating the effective and efficient management of HR. The financial records of one such organization, Andrew
Brown Lumber Company are in the archives at the university of Mississippi library.

With the publication of the “Human organization” in 1967, Likert provided a concept base and stimulus for a series of subsequent research studies on HRA. The second stage of development of HRA was a period of basic research to develop and assess the validity of models for measuring the actual cost incurred by an organization for the individual employees and organization as a whole, using the traditional historical cost principles.4

Hermanson demonstrated through his work the approach to measure the value of human assets as an element of goodwill when they have not been purchased. Practicing managers like Hekimian and Jones conceptualized the HR allocation as the major issue and suggested the application of competitive bidding concept in HRA. Efforts were made to adapt economic theories in a bid to value organizational HR. Research also aimed at identifying and formulating the possible uses of HRA as a tool for human resource professionals, functional managers and external users of corporate financial information.

Brummet with his associates from the Institute for social Research center, university of Michigan, with top management team from R.G. Barry Corporation, a footwear manufacture, Ohio, developed a formal cost based HRA system and incorporated it in 1968. Initially it started with historical cost date of ninety-five managers of the organization. Afterwards, it was extended to other levels in the organization.

Similar to R.G. Barry Corporation, efforts were made to bring HRA concept into lime light in Britain by Gites and Robinson in 1972 under the joint sponsorship of the Institute of personnel management and the Institute of cost and
Management Account (CIMA). In HRA next period, 1971 to 1976 was marked by a great deal of academic research throughout the western world, in Australia and Japan.  

American accounting association formed committees (1971-1973) to study the feasibility of HRA, its methods, keeping feasibility of HRA, its methods, keeping the traditional accounting practices in view, its possible impact as the employees etc.. The impact of HRA on human resource professionals, line managers and investors was continuously being examined and demonstrated from different angles through different approaches of HRA.  

2.2.2 HRA- Declining Phase

There was a rapid growth of interest in HRA amongst the accountants, economists, behavioural scientists, information science specialists and managers of industrial organizations to develop concepts and means of measuring the HR so as to aid decision making process is managing the same more effectively and also to assist customers, suppliers, investors, government and the people at large to assess the total value of the organization.

The development of HRA has been primarily on conceptual level, rather than as empirical ground. However, valuation of intangibles and invisible assets like human beings and reporting the same as the balance sheet was not readily acceptable to conservative accountant. Although inclusion of HR in the balance sheet was undoubtedly a part of HRA, it was not by far the most significant part. Yet, as it was dramatic and innovative to put people in the balance sheet, this assumed the major emphasis of many of the proponents.
American Accounting Association in its committee report of HRA (1972) has also accepted HRA practice; subject to development of appropriate means of measuring the same. The proponents have proposed various surrogate measures but each model has its own limitations.  

In fact, it has been difficult to assess through the different approaches suggested, the relative contribution made by human beings of an organization using a mix of resources, physical, financial and humans. For almost three centuries, economists have been debating as the issue of treating human skill and training as capital. But the debate is yet to be ended though several cost benefits analysis of education, health and welfare programmes have been undertaken at macro and micro level. Mr. Jurkus felt that neither accounting nor behavioural science has progressed so far that either researcher or manager may be able to obtain precise HRA data with which to accurately, describe predict or control organizational effectiveness.

The major obstacles to HRA implementation have been due to-

(a) Lack of adequate standards for the measurement of HR.

(b) Increased accounting cost.

(c) Extreme subjectivity associated with HR valuation process.

(d) Lack of tried and tested procedures besides the behavioural impact of value tag as individuals.

2.2.3 Resurgence of HRA

Interest in HRA waned since 1976 onwards but it never completely died down. Flamholtz opined that most of the relatively easy preliminary research had
been accomplished. However, further research efforts may have to be put in to deal with issues that are more complex in HRA. Earlier research was limited to small entrepreneurial organizations. In fact, more and more applied research is needed with corporations from major industrial houses to refuse the measurement methodologies. U.S. Naval Research office came forward during 1980 to provide the first sparks needed for its renewal.\textsuperscript{9}

Since 1980, there have been an increasing number of significant research studies dealing with the development of HRA for possible application in real life organizations. The U.S. labour department is likely to set up a task force to examine the possibility of changing the accounting rules to treat expenditure as training and development as investments rather than as an expense and the ways and means to put a value as corporations brain Power.

A variety of profit oriented enterprises in such industries as communications, aerospace, brokerage, computers, oil refining, advertising etc. began accounting for their investments in people and to deal with specific managerial issues of interest to their companies. Flamholtz has reported a number of application projects that have been undertaken in that recent past by many organizations, viz.\textsuperscript{10}

(a) Assessment of replacement cost of tellers and management trainees in the U.S. Bank.

(b) HRA applications in the management of HR including the replacement cost of civilian industrial engineers in the U.S. office of Naval Research.
(c) Valuations of Human assets acquired in a corporate purchase as the issue of amortization of human capital for income tax purposes in the major U.S. financial institutions.

(d) Assessment of replacement cost of personnel in a major Europe based business equipment manufacturer.

(e) HRA in the context of lay off decisions in a major Canadian industrial company.

(f) Development of cost and value accounting system in Touch Ross and co.

Subsequently, efforts have been continued to analysis the effectiveness of HR decisions through the introduction of HR cost and value accounting system in more and more corporate houses.

HRA has started gaining ground in India as well. Many of the modern western management ideas and theories though may not work in India due to mismatch between western management theories, Indian culture, and value system. In India more and more public and Private sector, corporate houses like ACC, BHEL, EIL, MMTC, ONGC, SAIL, and other have started reflecting HR in their annual accounts as a regular basis.  

2.3 HISTORY OF HRA IN FOREIGN COUNTRY

Although the attempt to include human asset in the balance sheet is of a recent origin, the concept of HRA was developed even before that. The concept of human capital is found in the writings of Adam Smith. The Roman accounting clearly indicates the ownership of slave as assets. In 1691, Sir William Petty made the first attempt to measure the money value of human being. According to him,
stock of human capital is to be valued by capitalizing the wage bill in perpetuating at the market interest rate, the wage bill being determined by deducting the property income from national income. 12

After the William Far (in 1853) and Earnest Engel (1883), the real work started in 1960 by behavioural scientists Vehemently he criticised the conventional accounting practices of not valuing the human resource along with other material resource. 13

2.3.1. INTERNATIONAL SCENE

The concept of HRA has its origin in the USA. A number of organizations have experimented with the concept in the USA at large and have found it useful. Some organizations in the USA have created senior positions designated as Director of Human Capital or Director of Intellectual Asset Management. Accounting is in an age of transition. From stewardship accounting to financial accounting and from financial accounting to management accounting and from management accounting to accounting for intangibles. 14

There are two approaches to Human Resource Accounting namely, Human Resource Cost Accounting (HRCA) and Human Resource Value Accounting (HRVA). HRCA concept was advocated William O. Pyle, according to him the expenses incurred on the acquisition, training and development of human resources are treated as investments and hence shown in the balance sheet as an asset and periodical write off these investments and charge to profit and loss account. 15 HRVA is based upon the economic value of human resource to an organization. In this area notable work has been done by Hermanson (1964), Likert (1967), Lew and Schwartz (1971), Likert and Pyle (1971) and Flamholtz (1971, 1972).
Some US companies have reported HRA in their annual reports. The R.G. Barry Corporation, a leisure footwear manufacturer, based in Columbus, Ohio, is the pioneer in this regards. To start with the company introduced HRA system, following HRCA, for its 95 managers in January 1968. In June 1969, it extended the system to cover 424 employees and reported the value in the balance sheet for the first time. Barry discontinued the publication of formal HRA reports in 1974. However, it is reported that it uses such information internally. The company uses such information in manpower planning, strategic planning and management control. 16

The Touch Rose and Company, a ‘Big – 8’ CPA firm of Canada, has also developed a system of accounting for investments in people. The system is reported to provide information necessary for decision making in such areas as employee turnover, optimum staff mix and hiring policies. The Lester Write and Company, a C.P.C. firm has also developed HRA system. Flamholtz was associated with the development of the system of this company. The other companies that are reported to have adopted HRA are the AT&T Company and Electronic Data System. 17

2.4 HISTORY AND DEVELOPMENT OF HRA IN INDIA

From a survey of the annual reports of public enterprises and private enterprises in India, we find that chairman’s report invariably contains the statements highlighting the significance of human resources. The chairman of these enterprises make their remarks at the annual general meeting of the share holders that our employees are our most important assets and without their significant contribution, the present growth in operation would not have been
attained. "I wish to place it as record of my sincere gratitude for the hard work done by the employees of our company". "I thankfully acknowledge the contribution made by our employees". These qualitative pronouncements reflect the importance of human resources in an enterprise but the quantitative information relating to their contribution or their value is nowhere record or shown in the financial statements. 18

However, in practice, a few enterprises, stated below, value their human resources and report this information in their annual reports.

2.4.1 HRA IN INDIAN ENTERPRISES

Despite the professed benefits of HRA in the area of human resource management, the concept has been unable to niche its coveted place by becoming an integral part of management information system. HRA is a recent phenomena in India. Leading public sector units like OIL, BHEL, NTPC, MMTC, SAIL, etc. have started reporting 'Human Resource' in their Annual Reports as a additional information from late seventies or early eighties. 19 Some of the organizations have even abandoned their HRA systems in India. Indian companies have followed the present value of future earnings model of Lew and Schwartz, 1971. This is because the Indian companies focused their attention on the present value of the employee earnings as a measure of their human capital. However, the application of Lew and Schwartz model by the public sector companies has in many cases, led to over ambitious and arbitrary value of the human assets without giving any scope for interpreting along with the financial results of the corporation. 20
2.4.1.(a) PUBLIC SECTOR ENTERPRISES
   a. Bharat Heavy Electricals Ltd. (BHEL).
   b. Cement Corporation of India (CCI).
   c. Project and Equipment Corporation of India (PECI).
   d. Engineers India Ltd.
   e. Minerals and Metals Trading Corporation of India (MMTC).
   f. Electrical India Ltd.
   g. Oil and Natural Gas Commission (ONGC).
   h. Hindustan Shipyard Ltd.
   i. Steel Authority of India Ltd. (SAIL)
   j. Oil India Ltd. (OIL)
   k. National Thermal Power Corporation Ltd. (NTPC)

2.4.1.(b) PRIVATE SECTOR ENTERPRISES
   a. Tata Engineering and Locomotive Works (TELCO).
   b. Associated Cement Company (ACC).
   c. Southern Petrochemical Industries Corporation (SPIC).
   d. Hindustan Lever Limited.
   e. Lauerson & Tubro (L/T).
   f. Madras Refineries Ltd.
   g. Metallurgical & Engineering Consultants (India) Ltd.
   h. Satyam Computers.
   i. Geometric Software Solutions.
At glance, Table 2.1 makes it abundantly clear that a majority of the organizations that publish such information and use the Lev and Schwartz model of economic value. The pioneer in the field is BHEL that experimented with this concept in 1974-75 and is still using the same model.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the Company</th>
<th>Publishing HRA Information since</th>
<th>Model</th>
<th>Discount rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ONGC</td>
<td>1981-82</td>
<td>Not Reported</td>
<td>11.25%</td>
</tr>
<tr>
<td>2</td>
<td>Engineers India Ltd.</td>
<td>1980-81</td>
<td>Not Reported</td>
<td>10%</td>
</tr>
<tr>
<td>3</td>
<td>National Thermal Power Corporation Ltd.</td>
<td>1986-87</td>
<td>Lew &amp; Schwartz</td>
<td>12%</td>
</tr>
<tr>
<td>4</td>
<td>MMTC</td>
<td>1983-84</td>
<td>Lew &amp; Schwartz</td>
<td>12%</td>
</tr>
<tr>
<td>5</td>
<td>BHEL</td>
<td>1974-75</td>
<td>Lew &amp; Schwartz suggested by Flamholtz &amp; Jaggi &amp; Lau.</td>
<td>14%</td>
</tr>
<tr>
<td>6</td>
<td>CCI</td>
<td>1980-81</td>
<td>do</td>
<td>15%</td>
</tr>
<tr>
<td>7</td>
<td>Madras Refineries Ltd.</td>
<td>1985-86</td>
<td>Lew &amp; Schwartz</td>
<td>15%</td>
</tr>
<tr>
<td>8</td>
<td>Metallurgical &amp; Engineering Consultants (India) Ltd.</td>
<td>1984-85</td>
<td>do</td>
<td>14%</td>
</tr>
<tr>
<td>9</td>
<td>OIL</td>
<td>1984-85</td>
<td>do</td>
<td>10.5%</td>
</tr>
<tr>
<td>10</td>
<td>ACC</td>
<td>1983-84</td>
<td>do</td>
<td>N.A.</td>
</tr>
<tr>
<td>11</td>
<td>Southern Petro-Chemicals Industries Corporation.</td>
<td>1983-84</td>
<td>do</td>
<td>N.A.</td>
</tr>
</tbody>
</table>

Note: N.A. stands for not available (Not Reported).
Total number of industries showing HRA in India is 20, names are shown in 2.4.1 (a / b)
Sources: Various annual reports of companies.
2.5 DEFICIENCIES IN THE CURRENT LITERATURE

Unfortunately, no expert has made any endeavor to answer why one type or the other type of human resource costs is to be considered for valuing human resources. Simply they have suggested to consider some costs and to follow certain procedure without explaining the logic. They have not attempted to evaluate the different elements of human resource costs to find out whether they (costs) possess the features of assets or not. There was a rapid growth of interest in HRA amongst the accountants, economists, behavioural scientists, information science specialists and managers of industrial organizations to develop concepts and means of measuring the human resource so as to aid decision making process in managing the same more effectively and also to assist customers, suppliers, investors, government and the people at large to assess the total value of the organization. 21

For almost three centuries, economists have been debating on the issue of treating human skill and training as capital. However, the debate is yet to be ended though several cost benefit analysis of education, health and welfare programmes have been undertaken on macro and micro level. Jurkus felt that neither accounting nor behavioural science has progressed so far that either researcher or manager may be able to obtain precise HRA data with which to accurately describe, predict or control organizational effectiveness. 22

The above analysis unequivocally brings the point to the force that the existing literature fails to substantiate the procedure it suggests of according assets status to the human resources by capitalizing or assetising some costs which have been treated as revenue expenses.
2.6 COMMITTEE HELD AND SURVEY CONDUCTED ON HRA

Although human resource development is usually equated with schooling or formal education, human resource development in its correct perspective has also other facets. With the ever-expanding dimensions and growing complexities of business activities, increasing governmental monitoring in business affairs, pressing trade union demand for greater disclosure on human performance in business and emanation of scientific management within the organization necessitate the development of a system of accounting for the associated men who are indispensable resources to an organization. The academics, practitioners and institutes in the accounting world are deeply engrossed in the issue of the models, developed so far, into practice.

Due to the limited literature available on Human Resource Accounting, very few information’s is available regarding the committees and surveys conducted on HRA. It is important to note the considerations of some important committees.

2.6.1 American Accounting Association Committee

American accounting association committee report of HRA (1972) has also accepted HRA practice, subject to development of appropriate means of measuring the same. The proponents have proposed various surrogate measures but each model has its own limitations. In fact, it has been difficult to assess through the different approaches suggested, the relative contribution made by human beings of an organization using a mix of resources, physical, financial and human. There has been little agreement amongst the many proponents in the field consensus approach towards HRA.
2.6.2 19th Annual Congress of the European Accounting Association, Bergen, Norway (HUMAN ASSET VALUATION – An Old Issue, A New Approach)

Human Asset Valuation (HAV) has been a subject for discussion in the accounting literature for the last three decades. After its emergence in the early sixties, the subject attracted attention in the accountancy world. At the beginning of the 1970s, it became one of the research issues in the accounting but at the end of the decade, it rapidly lost its attraction particularly regarding its practical application. The subject of HAV has been approached from several different angles. It has been claimed that HAV provides useful information for investors as well as being essential for the management planning and control functions such as manpower planning and control of personnel costs, decision-making process, i.e. shareholders and other interested parties.

2.6.3 Meetings conducted by ICAI and ICWA

With reference to the letter of ICAI (RES/MISC Dt. 14-02-2001) & ICWA (Ref. No. 57(c)/2000-01/207 Dt. 01-02-2001). Both the institutes has not held any meeting on HRA and nor there any plans to hold the same in the near future.

2.7 SUMMARY

A survey of literature on HRA shows that experts have made their exercises in the form of suggesting ways to accord assets status on par with the physical assets, to the employees. The experts differ among the themselves from the viewpoint of type of human resource costs, which is to be considered for ascertaining the value of human resource.

A survey of literature on HRA in public and private enterprises sector in India reveals that in the annual report we find that Chairman’s report contain the statement highlighting the significance of human resource as follows.

“I wish to place it as a record of my sincere gratitude for the hard work done by the employees of our company”
"I thankfully acknowledge the contribution made by our employees"

These quantitative pronouncements reflect the importance of human resource in following enterprise –

Public Sector Enterprises:–
1. Bharat Heavy Electricals Ltd. (BHEL),
2. Cement Corporation of India (CCI),
4. Oil and Natural Gas Commission (ONGC).
5. Steel Authority of India (SAIL).

Private Sector Enterprises:–
1. Tata Engineering and Locomotive Works (TELCO),
2. Associated Cement Company (ACC),

HRA has great potential in the modern age of professionalisation and particularly in case of labour intensive service industries where human resource plays a major role.

HRA is a developing subject. The various approaches and models are the contribution of different authorities on the subject. Though these are certain drawbacks in the model employed by companies in India to value human resource, it goes to their credit that by reporting HRA in their annual reports, they have at least shown their concern for their employees.
REFERENCES


2. Ibid, p. 18

3. Ibid, p. 18


10. Ibid, p. 121.


13. Ibid, p. 224


20. Study material of ICAI Unit 2, C.A. Final Pg. 18, old course 2000.