Chapter III

Review of Existing Literature on Human Resource Accounting
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This chapter starts with a review of the existing literature on human resource accounting. For this, the published articles on human resource accounting in various journals of repute were thoroughly studied. The studies are categorized as Foreign Studies and Indian Studies. Some of the books and edited volumes on human resource accounting were reviewed. At the end of this chapter the findings of the various studies reviewed, which highlights the utility of human resource accounting information on managerial decision making, are presented in a nutshell.

I. Foreign Studies on Human Resource Accounting

Brummet, Flamholtz, and Pyle (1968a) carried out one of the earliest works on human resource measurement. The authors developed a number of methodologies for human resource valuation and also examined the usefulness of human resource accounting. They concluded that human resource accounting is useful as a managerial tool.

Brummet, Flamholtz, and Pyle (1968b) in their article defined human resource accounting as “the process of identifying, measuring, and communicating information about human resources to facilitate effective management within an organisation.” The authors emphasized that managers lack the necessary tools for effectively evaluating alternative human resource investments or for optimizing the allocation of human resources and they proposed that human resource accounting could be used in taking decisions regarding such matters.

Brummet, Flamholtz, and Pyle (1969) in their study accentuated the role of human resource accounting as a tool for increasing managerial effectiveness in the acquisition, development, allocation, maintenance, and utilization of human resources. The study included the case study of R. G. Barry Corporation, which was carried out in order to examine the significance of the HRA system in an organisation. The authors suggested that human resource accounting should not be exclusively designed for use in external financial reporting but should aid in the process of deciding among alternative investments in human resources and evaluating their maintenance and utilization.

Brummet (1970) suggested that the scope of accounting should be enhanced to include the assessments of human resources within organisations and within society. The study
hypothesized that such practice will persuade the managers to be more concerned about human resource investment decisions.

**Basset** (1972) in his article made an attempt to assimilate human resource accounting and turnover measurement and costing. Major emphasis was given on definition, description, and measurement of employee turnover. Finally, the study concluded with the note that the employee turnover measurement and human resource accounting are inseparable concepts.

**Elias** (1972) conducted a study on the impact of accounting for HR on decision-making. In the study, an attempt was made to assess whether decisions based on financial statements incorporating HR would be different from those based on conventional statements. The author addressed questionnaires to groups of Chartered Financial Analysts, Certified Public Accountants, Financial Analysts and students of the University of Minnesota in the Minneapolis-St. Paul area in the State of Minnesota. The respondents were provided with a set of conventional statements, a set of human asset statements based on the acquisition model, and a set of combined statements, for two hypothetical firms. The findings of the study indicated that although differences among decision outputs were statistically significant, the degree of association measured by the contingency coefficient was rather low.

**Flamholtz** (1973a) in one of his studies attempted to develop a model for measuring the cost of replacing individuals occupying specified organisational positions. The application of this model in a medium-sized insurance company and the potential applications and implications of positional replacement cost information for managerial decision making were discussed in this paper.

**Flamholtz** (1973b) in another study examined the role of human resource accounting within the framework of corporate social responsibility. The author suggested the means by which business organisations can meet their social responsibilities. The two aspects of human resource accounting relevant to corporate social accounting were presented in this paper: a paradigm enabling managers to better conceptualize the management of people in business organisations, and a measurement method that assists in decision making.

**The Report of the Committee on Human Resource Accounting** (1973) formed by the American Accounting Association mentioned that the purpose of HRA is to improve the quality of financial decisions made both internally and externally concerning an organisation. The HRA data widens the scope of decision-making with respect to internal decisions as it
permits the consideration of a large set of variables and improves the basis on which the variables are considered in decision-making. The report specified that the availability of quantitative data on human resources should permit their impact to be readily incorporated in the decision-making structure. It confirms that an HRA system would improve decision making by allowing consideration of a wider number of variables. It also mentioned that the external users, particularly investors, could benefit from HRA through the provision of information on the extent to which the human assets of the organisation have been increased or diminished during the period.

Baker (1974) made a critical assessment of the usefulness of human resource accounting for both external and internal reporting purposes. The potential for profit manipulation was advanced as a negative aspect of such accounting system. The author pointed out that research should be carried out to determine the limitations of human resource information.

Dobbins and Trussel (1975) in their article provided a background of research in human resource accounting, presented an analysis of various valuation methods, and considered the implications of human resource financial reporting for the personnel function. The authors concluded that the philosophy of human resource valuation enhances the status of the personnel function.

Sangeladji (1975) carried out a research study for assessing the usefulness of a measurement model based on the discounted value of employees’ compensation relatively to the measurement model based on cost of acquisition. Questionnaires and sets of financial statements were used to solicit the opinion of Certified Public Accountants, Chartered Financial Analysts, trust and finance officers of banks and trust companies, controllers and managers of large corporations as well as students. The sample had nation-wide representation. The findings of the study revealed that HR information was useful but the degree of usefulness varied as between the experimental groups. Managers perceived the lowest utility for such information, while users in other professions perceived a higher utility. The relative usefulness of financial statements prepared on the basis of acquisition cost model and the proposed measurement model were however not different. The study also revealed that the users would prefer HR information to be reported through a set of supplementary statements rather than as part of the conventional statements.
Flamholtz (1976) carried out a laboratory experiment designed to determine whether human resource value numbers, which are the output of a proposed method of human resource valuation, influence a selected human resource management decision — the “allocation” (job assignment or staffing) decision. In this study human resource value numbers were hypothesized to influence decisions per se as well as the decision-maker's set, the criteria used in reaching decisions. The results indicated that non-monetary human resource value numbers may influence decisions. However, it could not be established that monetary human resource value numbers make a difference in decisions. The results also indicated that human resource value measures may influence the decision-maker's set and criteria used in decision-making.

Hall, Alexander, et al (1976) in their study remarked that by combining the techniques of human resource accounting with survey feedback, one can get a more accurate method for monitoring and controlling corporate investments in people. They also mentioned that the goal of the method suggested was to provide human resource information to individual managers on a frequent basis to improve the productivity of personnel decisions. The proposed process was structured to assess what happens when a managerial decision involving people is made and when performance begins to change. Step 1 involved the decision to increase or decrease a firm's investment in people. Step 2 involved personnel changes and how did they affect the job-characteristics of employees in the way they perceive their work environment. Step 3 involved determining how organization actions were translated into employee actions. This required finding out what the employee was thinking and to look out for more sophisticated monitoring techniques.

Tomassini (1977) conducted a laboratory experiment which examined the effects of HRA cost data in the personnel lay-off decision context. The hypothesis of the study was- “No differences exist in personnel lay-off decision preferences stated by (i) managers with access to conventional accounting data, and (ii) managers with access to both conventional accounting and human resources accounting data”. In a randomized, control group research design, 52 volunteer accounting student subjects were asked to express their preferences for each of 4 alternatives to a hypothetical case scenario. The results indicated that the HRA cost data apparently caused different preferences to be expressed between the experimental and control group subjects.
Oliver and Flamholtz (1978) in their study intended to determine – whether human resource replacement cost numbers reduce the individual decision maker’s perceived uncertainty that the decision made by him/her was an optional one and whether the cognitive characteristics, which are connected with the personality traits of an individual, of the decision maker affect the perceived information content of HRA data provided. They used cases which asked the respondents to make a decision in the context of human resource conservation decision. Based on the analysis of the data and statistical testing it was concluded that the additional human resource replacement cost numbers had in fact cause changes in the decision preferences and the cognitive characteristics of the decision makers affects his perception of the information content of the data provided. However the main limitation of this study was that the students were used as surrogate for managers.

Harrell and Klick (1980) carried out a comparative study of the impact of monetary and non-monetary human asset measures on executive decision-making. The study was aimed at testing the following hypotheses- (i) Decision makers will place greater emphasis on monetary human asset measures than on non-monetary human asset measures in reaching their decisions; and (ii) Decision makers will reach different decisions when utilizing monetary human asset measures than when utilizing non-monetary human asset measures. It was carried out in US Air Force and the senior colonels were the subjects of the study. The subjects were given cases, with monetary and non-monetary replacement costs separately, and were asked to rate the promotability of an officer. After data analysis and statistical testing it was revealed that greater emphasis was given on the monetary human asset measures in arriving at decisions and made different decisions when they have used the monetary and non-monetary information separately.

Skees (1980) carried out a study in the Department of Defense (DoD) in the US. In this article it was suggested that the DoD adopted HRA as a means of increasing objectivity in expenditure decisions that relate to human resources. The key to implementation of HRA was to gather previously unquantified data that was considered too subjective to use; the resulting acquisition cost data would significantly improve the personnel data base. It was mentioned that there is a need for accurate measures of service-life expectancy in order to write off personnel "assets" over their expected useful lives. The areas for application of HRA in DoD
included recruiting and retention, training and education, promotions and assignments, and justification of budget requests.

Bayes (1983) conducted a study to determine, which HRA data cues influence decisions and which conventional data items do not influence decisions, which demographic variables influence decisions, and whether the occupational sector influence the decision. The study considered three decision areas- lay-off decision, resource allocation and employment decision. After analysis of the data it was concluded that certain HRA data cues did in fact influence the decision process and these useful HRA data cues could substitute for those conventional data cues that were deemed non-influential. Another important finding of this study was that neither the demographic variables nor the occupational group factors were consistent in their relationship to decisions.

Gul's (1984) study reported the results of a laboratory experiment designed to evaluate the usefulness of applying Human Resources Accounting (HRA) to the problem of labour turnover management decision making in a sample of Australian accounting firms. The term “useful” was defined as a reduction in uncertainty and an increase in relevance and sufficiency. Using a pretest-post-test research design, 57 volunteer accountants responsible for personnel decisions were individually administered (1) a two-part pilot tested case study with and without Human Resources Turnover Costs (HRTC); (2) a questionnaire which measured subjects' response to levels of uncertainty, relevance and sufficiency of the information. The study, by testing three specific hypotheses, concluded that HRTC information significantly reduces accountants' levels of uncertainty and increased their levels of relevance and sufficiency.

Ferguson and Berger (1985) in their study provided information on human resources accounting in the hospitality industry in US. It pointed out the advantages and disadvantages of some of the methods of human resource accounting. The details of several evaluations and decisions that a company might make on the basis of HRA information were discussed in this paper. The authors opined that accountants and managers who fully understand the concept can apply many of the HRA principles for assessing existing and proposed employee-development programmes.

Wambsguass (1985) in his behavioural research asserted that human resource accounting has an impact on decision-making. Sensitivity analysis on human resource variables was
used in this study. This was done to determine the magnitude necessary for human resource adjusted net income to deviate from conventional net income. He concluded that HR value should be accounted for while preparing financial statements.

Flamholtz (1986) in another study mentioned that important HR decisions were frequently made without vital information about costs and benefits, and HRA was the way out. The HRA system could be used to evaluate management training programs, increase productivity, and improve decision making. The author pointed out that there were number of HR accounting systems and we must select the one which fits our organisation. He mentioned that four factors: the nature of the organization and its employees, size and structure, existing HR accounting capability, and potential for developing HR accounting, must be taken into consideration while choosing an HR accounting system. In this article, the author formulated the design of the system which involves five phases: (i) identification of objectives, (ii) development of measurements, (iii) development of a database, (iv) testing and revising the system, and (v) implementation and modification.

Ogan (1988) carried out a field experiment to assess the impact if human resource accounting information on managerial decisions.

Vakharia (1995) in his paper remarked that the goal of human resource management is to increase the value of organizations by transforming human inputs into useful and valuable outputs and the role of human resource accounting is to provide the information necessary to perform this in the most efficient manner possible. According to him HRA has two major functions- one that it is a paradigm, or a way of viewing human resource issues, and second it is a set of measures for quantifying the costs and benefits of human resource decisions. In this study, HRA was considered as an attempt to measure the costs incurred by business firms and other organizations to recruit, select, hire, train, and develop human assets, and it also involved measuring the economic value of people in organizations. He concluded that HRA is a tool that can explain the consequences of management decisions, including hidden and long-range costs that may not be readily apparent. Some examples of the applications of HRA systems were presented in this paper.

Kiase (1996) in his article evaluated the merits of utilizing human resource accounting concepts to account for human resource development (HRD) in the public sector. It described the development of the economic theory of human capital and the increasing recognition of
human resources as human assets of public organizations to be managed and accounted for in a manner similar to capital assets. The development of HRA concepts concerning human resource value and cost was discussed. These HRA concepts were applied to HRD and to current and potential uses in external financial reporting and internal managerial accounting in public organizations. This article concluded that the application of HRA concepts to HRD would have significant benefit for the operational and strategic management of human resources in public organizations. Using HRA information in internal managerial decision making would demonstrate the value gained in excess of costs incurred for such activities. The application of HRA concepts in public organizations, whether to internal managerial accounting and decision making or to public sector financial reporting, would heighten the priority of HRD activities by recognizing them as asset building rather than as an expense.

Bontis (1998) carried out a study in which content analysis was conducted on the annual reports of 10,000 Canadian corporations. A list of terms relating to intellectual capital was searched within the annual reports. A significantly small number of instances in which intellectual capital disclosure took place were found out. A major recommendation for corporations that are concerned with their relationship with the capital markets is to develop strategic and tactical initiatives that provide for voluntary disclosure of intellectual capital. These initiatives may initially be used for internal management purposes only; however, an external stakeholder-focus report would be the ultimate goal.

Vilardell et al (1999) conducted a study to examine the impact of HRA information on internal decision making. They reported a strong positive influence of HRA information on decisions regarding training and development of the people on the pay-rolls.

Flamholtz, Bullen & Hua (2002) in their study outlined the history and development of HRA. The authors opined that although HRA has important implications for external financial reporting, in the contemporary economic environment HRA has even greater significance as a powerful managerial tool in internal human resource management decisions. Authors pointed out that in the light of the history of labour and human resource management, HRA suggested a vehicle for improvement of management as well as measurement of human resources. The paper concluded that if HRA could demonstrate that profit enhances due to improvement in human resource management, then managers would integrate human capital implications in their decision making to an enhanced degree.
Rimmel (2003) carried out a study on the relationship between information, providers and users of HR disclosure. In this study, a comprehensive review of previous disclosure literature showed that information, providers and users were studied separately. This study combined different aspects of prior research by applying a tripartite model studying information, providers and users together. It examined the amount of voluntary disclosures in corporate annual reports, why human resource disclosures are provided and how the users utilize the voluntary information on human resources. The outcome of this study revealed that the users regard human resource disclosures as important information as they contribute to the overall impression of a corporation although the human resource disclosures did not fully meet the expectations of the users.

Weatherly (2003) in his study remarked that in order to be in the best possible position to understand the customer and market-driven factors that affect our business; effectively influence and contribute to the strategic decision-making process; adapt quickly to and facilitate change in our organizations; and manage and influence organizational culture, we must understand the value of people. The main purpose of this article was to challenge the HR practice leaders, at all professional levels, to search for ways to utilize human capital measurement systems to optimize the value of people in their organizations.

Toulson and Dewe (2004) carried out a research to explore why human resource accounting is regarded as important, to whom it is important and its links with organizational and HR strategies. The authors used a survey-questionnaire approach to collect data. The findings of the study highlighted the importance of human resource accounting and pointed out the main reasons for measuring human resources.

Tang (2005) in his article developed a heuristic frame for addressing the link between human resource replacement cost and decision-making, in accordance to his proposed human resource replacement cost (HRRC) system. The system possessed the capability of measuring direct and indirect costs of human resource, which was then applied to a company within the metro industry in China. In this study the author suggested a measure by which the cost of lost productivity can be ascertained. Finally, the usefulness of HRRC information concerning decision making in the areas like employee turnover, separation indemnity, duration of labor contracts, and personnel budgets in monetary terms were mentioned in the study.
II. Indian Studies on Human Resource Accounting

Unfortunately there have been a very insignificant number of Indian studies regarding the use of HRA information in managerial decision making. Some of the studies carried out on the impact of HRA information on managerial decision making in the Indian context are as follows:

Gupta (1988) conducted a research study to examine the nature of possible impact of HRM data on decision making by management. This study revealed that the internal as well as external users of HR data considered information regarding human assets and changes thereof as valuable aids to management.

Malik (1993) carried out a research study for assessing the impact of HRA information on decision making. In judging the behavioural impact of HRA on managerial decision making, three personnel decision areas were chosen: (i) Turnover of human resources, (ii) Lay-off of human resources, and (iii) Selection of human resources. This study substantiated the earlier notion that the quantified information in the realm of human resources could help the personnel managers in reducing their level of uncertainty in decision making.

Narayankutty (1997) in his doctoral dissertation showed the magnitude of HR investment in Cochin port Trust and examined the efficiency levels of its human resources on the basis of their contribution and the investment made in human resources. This study revealed that the human resources of the enterprise were not properly utilized by the management and also concluded that the contribution of human resource to the operational efficiency of the concern was low as compared to the value of its human resource.

Patra et al (2003) in their study showed that HRA helps in measuring the value of employees, which ultimately helps the management in taking the vital decisions related to human resources in order to increase production. In the study, HRA was analyzed for a profit making heavy engineering public sector company, viz., Bharat Heavy Electricals Limited (BHEL), India. They examined the correlation between the total human resources and the personnel expenses for their fitness and their impact on productivity. The study concluded that the HRA valuation is important for decision making in order to achieve the organizational objectives and to improve the output.

Patra (2005) studied the human resource accounting system in Bharat Heavy Electricals Limited (BHEL), India, to examine its usefulness in organizational achievements. This study
also attempted to measure how far HRA system was useful to mitigate industrial conflicts and motivate employees. The usefulness of HR value to shareholders, investors, creditors and employees’ union were examined in this study. The study concluded that the HRA system helped BHEL in improving and achieving organizational objectives both quantitatively and qualitatively.

Parameswaran and Jothi (2005) observed in their study that the quantitative information about the value of human resources generated by the HRA system influences the top management in taking decisions regarding the adequacy of human resources. Again, based on these insights, the decisions regarding recruitment and selection of personnel were taken.

III. Utility of the HRA System - In a nutshell

On the basis of the review of existing literature on human resource accounting, it was observed that the HRA information do facilitate managerial decision making. The various remarks found in the existing literature on the influence of HRA information on managerial decision making are mentioned below:

- HRA serves as a framework to facilitate human resource decision making.
- HRA provides numerical information about the cost and value of people as organisational resources.
- HRA can motivate line management to adopt human resource perspective in their decisions involving people.
- HRA provides a perspective for analyzing the effects of decisions on the human organisation and for explaining the consequences to management.
- HRA system helps to attract investors through proper disclosure of information about the human resources of an organisation in the annual reports.
- HRA facilitate aspects of human resource planning by providing information to management on historical costs of recruiting, hiring, and training and so on.
- HRA is useful in preparing human resource acquisition budgets as it can provide measurements of the standard costs of recruiting, selecting and hiring people.
- HRA plays a vital role in personnel selection as it can provide information about the future value to the organisation of the different job candidates.
- HRA facilitate decisions involving the allocation of resources to human resource development by measuring the expected rate of return on proposed investments.
• HRA is useful to management in formulating policy for human resource acquisition and development.
• HRA is useful to management in making decisions regarding the allocation/placement of human resources to various jobs.
• HRA assists management in conserving (retaining) its human organisation by providing an early warning system. It can measure and report certain (social-psychological) indicators of the condition of the human organisation, and management can assess trends in these variables prior to the actual occurrence of turnover.
• HRA offers a framework to help managers utilize human resources effectively and efficiently.
• HRA provides vital information to know whether the human resources have been properly utilized.
• HRA is useful in the evaluation (i.e. performance & promotability of people) process by developing reliable methods of measuring the value of people to the firm.
• HRA has an impact on the administration of reward systems. It enables management to base compensation decisions on the value of people to the firm.
• HRA is used to evaluate the efficiency of HR departments. It provides certain standards costs with respect to acquisition, development, etc of people, and these standards can be compared with the actual costs incurred by the department.
• HRA provides vital information for career planning and development of the employees.
• HRA measurements can be used to assess the quality of working life of employees.
• HRA provides feedback to the mangers on their performance in managing human resources.
• The information provided by the HRA system is used to evaluate alternative investment opportunities (expansion of production capacity, modernization, R & D facilities etc) by considering both the physical and human resources.
• HRA provides information that is necessary for decision making in the areas of employee turnover and optimal staff mix.
• HRA helps in estimating the standard positional replacement cost.
• HRA techniques are used in analysis and selection of new business opportunities.
• HRA provides the organisation with a more accurate accounting of its return on total resources employed, rather than just the physical resources.
• In case of corporate mergers & acquisitions the valuation of human assets is very essential and this is effectively done by HRA.
• HRA helps to take decisions with respect to allocation of funds for employee welfare amenities.
• HRA information is used to conduct the cost-benefit analysis of any proposal.
• HRA information has utility in making personnel layoff decisions.
• HRA information is used to evaluate the return on investment on management development programmes.
• HRA information is used to value the human assets and isolate that value from goodwill.
• HRA is useful in making personnel advancement analysis.
• It is possible to use HRA in budgeting training and development costs.
• HRA provides vital monetary arguments for resolving employer-employee disputes.
• HRA offers an objective basis for removing employees' grievances.
• HRA system make the employees feel they are valued and thus improve the motivation, morale, commitment and loyalty of the employees.
• Decisions regarding delegation and decentralization would be influenced by the knowledge of the value of managerial personnel.
• HRA information helps to settle labour-management disputes.
• HRA helps to take decisions with respect to investments to be made in research & development.
• The decision of investing, or providing financial assistance/credit facilities is more meaningful if the value of human resources and changes thereof are taken into account.

IV. Identifying the Research Domain
The literature reviewed reveals some of the areas where HRA information can be used for making effective decisions. Most of the literatures reviewed were either a case study where the researchers have made an in depth study regarding the use of the system in the concerned organisation. Some of the studies have tried to identify the difference between the decisions made with the help of conventional accounting information and decisions made with the help of both the traditional accounting information and the HRA information, with respect to certain decision-areas like lay-off, selection of personnel etc. The majority of the researchers in the field of human resource accounting have been carried out abroad. In the initial phase of the development of HRA, studies were mainly confined in the USA. Later on it spread to the
other western countries. Certain studies which have contributed immensely to the literature of HRA were being undertaken in various Australian firms of repute. Recently we can find that lot of studies are being carried in the Scandinavian countries because of statutory requirement. Among the Asian countries, some of the works have been done in China. As far as India is concerned there are very few studies, and most of them are case study based in various public enterprises. There's no comprehensive study in the field of human resource accounting. In the recent period we can find that the accounting professionals are giving up the concept of HRA as they are still in the dilemma – Whether HR can be treated as assets?, Should we put the people factor in the Balance Sheet?, How can we value HR?, Which model is appropriate for HR valuation?. There is profuse number of questions which still remains unanswered. Different schools of thought in the domain of accounting have developed different methodologies for the valuation of HR, suggested different approaches for treating the most valuable asset of the organisation. But sadly, there was no unanimity on the part of the accounting professionals. But today we find that this concept of HRA is being used by the HR professionals as an approach to Human Capital Management. In some of the literature it have been mentioned that HRA can be used as an effective tool for strategic human resource management.

In this backdrop, we have intended to carry out a comprehensive study to gather the opinions of the executives, of various corporations of repute, regarding the HRA system. From this study the general perception of the executives regarding the HRA system can be obtained and we can also find out the reasons which impede the corporations from adopting this system. The main objective of this research is to study the influence of HRA information on managerial decision making. If we want resurgence of HRA then initial we have to validate the utility of the system, convince the executives regarding the importance of having HRA information. And this can be done mainly by developing awareness among the executives about the HRA system. Another important infrastructural factor which can strengthen the HRA adoption process is the computerized HRIS system. The computational aspects of HRA are very cumbersome and this can also be assigned as a negative factor. Computerized HRIS can resolve the information as well as the computational hazards associated with the HRA system. Today we can find computerized HRIS system in many organisations, and it can facilitate the adoption of HRA system.
References:


