CHAPTER-I

INTRODUCTION

Human resources are an important asset of any business undertaking. It pertains to the information about the people in a given organisation, their skill, talent and energies which can be or should be efficiently utilised for the production of goods or in rendering of services in a most profitable manner thereby achieving the organisational objectives of that enterprise. Capital resources and natural resources are considered as passive factors of production while the human resources are treated as active factors of production because it is the human resources that mobilise the capital resources, exploit the natural resources and build up a progressive organisation.

Increase in the productivity of an organisation is one of its main objective. Productivity of a concern is based upon many factors, one of the most important factors is to take into consideration the employee devotions, loyalty and initiative which cannot be accounted for in monetary terms alone. It is here that human resource accounting assumes an over-riding confidence. Such an accounting paves a way to win employee's devotion, loyalty and initiative; and thereby increases the productivity of the business enterprises. Every organisation should therefore always consider its human resources as an important asset to the organisation, and to be prime
strength for its growth and development. Only if a concern has progressive personnel policies in respect of recruitment, placement, compensation packages and opportunity for growth, the employees will grow and achieve their potential; and thus help the organisation to develop in its activities for the survival and growth of the enterprise.

The Concept

Human Resource Accounting is the systematic recording of the transactions relating to the value of the human resources i.e. the cost for the acquisition of the knowledge of the human beings in the organisation, development of their skill and talent and utilisation of their energy for the production of goods or for rendering of services in the most profitable manner and thereby achieving the organisation's objective. The people in the organisation are accounted for, as a resource.

Davidson maintains that – Human Resource Accounting is a term used to describe a variety of proposals that seem to report and emphasise the importance of human resources knowledgeable, trained and loyal employees in a company's earning process and total assets.

The American Accounting Association takes it, "as a process of identifying and measuring data about human resources and communicating this information to interested parties". ¹
Eric Flamholtz calls it "accounting for people as organisational resources. Human Resources Accounting is the measurement of the cost and value of people for organisation".²

R.L. Woodruff Jr. a Vice-President of the R.G. Barry Corporation gives a more detailed definition. He posits "Human Resources Accounting is an attempt to identify and report investment made in resources of an organization that are not presently accounted for under conventional accounting practice. Basically it is an information system that tells management what changes over time are occurring to the human resources of the business".³

The above definitions suggest that the advocates of Human Resource Accounting certainly have displayed considerable flexibility and ingenuity in proposing new treatments to Human Resources Accounting. Some accounting experts now claim that a well developed system of Human Resources Accounting could contribute significantly both to internal management decisions and to external investment decisions.

EVOLOUTION OF HUMAN RESOURCE ACCOUNTING

The concept of human resource accounting has had a chequered history of development. The first signs of interest in this type of accounting became manifest in or around 1960. The period from 1960 to 1966 could be termed
as its first stage of development. It was during this stage that the basic HRA concept came to be derived from related bodies of theory. The first breakthrough regarding the development of human resource accounting emanated from variety of sources, including "the economic theory of human capital, organizational psychologists' concern for leadership effectiveness, the new human resource perspective, and a concern for human assets as components of corporate goodwill."  

The second stage of development of HRA related to a period of basic academic research to develop and assess the validity of models for the measurement of human resource cost (both historical and replacement) and value (both monetary and nonmonetary). It was also a time of research designed to formulate the present and potential uses of HRA as a tool for human resource professionals, line managers, and external users of corporate financial information. This stage, which prevailed from 1966 to 1971, also included a few exploratory experimental applications of HRA in actual organizations.

One of the earliest studies in human resource accounting during the second stage was conducted by Roger Hermanson, who was at that time a Ph.D. candidate at Michigan State University. Hermanson dealt with "the problem of how to measure the value of human assets as an element of goodwill when they have not been purchased." In addition, in the beginning of 1967, a research team that
included the late Rensis Likert, R.Lee Brummel, William C. Pyle, and Eric G. Flamholtz carried out a series of projects designed to develop concepts and methods of accounting for human resources. Under the direction of William Pyle, then a Ph.D. candidate, research was conducted on the measurement of the historical cost of human resources at the R.G. Barry Corporation, a relatively small soft goods manufacturer headquartered in Columbus, Ohio.

The third stage of development of HRA, which extended from 1971 to 1976, was a period of rapid growth of interest in human resource accounting. It involved a great deal of academic research throughout the Western world and in Australia and Japan. It was a time of increasing attempts to apply HRA in business organizations. Most of these applications were conducted by relatively small entrepreneurial organizations, such as R.G. Barry Corporation. This corporation was instrumental in developing a system of accounting for the historical cost of human resources during the second stage of development. This experiment received a further fillip and considerable recognition at least for a few years of the third stage when this company published proforma of financial statement that included human assets. This, in turn, stimulated increasing interest in HRA. Unfortunately, the publication of those financial statements also had a negative side-effect, "they led to the widespread erroneous impression that human resource accounting was concerned only with treating people
as "financial objects." Although preparing financial statements that included human resources was undoubtedly a part of human resource accounting, it was not by far the most significant part. Yet precisely because it was dramatic and innovative, "putting people on the balance sheet" became the dominant image of HRA for many people.

The research during stage three also involved assessments of the potential impact of HRA information on decisions by human resource professionals, line managers, and investors. It also involved the continued development of concepts and models for measuring and accounting for human resource cost and value. This stage was characterized by a considerable amount of published research dealing with HRA as well as a great deal of seminar activity.

During the third stage, the American Accounting Association established committees on human resource accounting in 1971-1972 and 1972-1973. These committees published reports on the development of HRA.

The fourth stage in the evolution of HRA, from 1976-1980, was period of declining interest both in academia and in the corporate world. One of the reasons for the reduced interest was that most of the relatively easy preliminary research had been accomplished; the remaining research required to develop HRA was complex, could only be accomplished by a relatively few scholars, and required the co-operation of organizations willing to serve as research
sites for applied research studies. Since relatively few individuals had either the skill required to do such research or the qualifications required to obtain the necessary corporate participation, few major studies were performed. During this period, corporate interest was diverted to other, more pressing issues. Furthermore, the required research involved the application of HRA in organizations, and the cost of subsidizing such research was significant while the benefits were either uncertain or would accrue to the field as a whole and not necessarily to the sponsoring firm. It was at this point that HRA seemed to have been an idea that was promising but that would not be developed much further. However, significant megatrends in the environment changed all that in just a few years.

Stage five, the current stage of development of HRA, which can be dated from 1980 to the present, has involved the beginnings of a resurgence of interest in the theory and practice of human resource accounting. Although interest in HRA had clearly waned during the period from 1976 to 1980, it never completely died. The first sparks of renewal flared during 1980, and since then there have been an increasing number of significant new research studies dealing with the development and application of HRA as well as an increasing (albeit relatively small) number of attempts to apply human resource accounting by major organizations.
One of the most significant events that served as a catalyst to the renewal of interest in HRA was a decision by the U.S. Office at Naval Research (ONR) to sponsor a research project dealing with the feasibility of the application of HRA to naval human resource management issues. This was the first project of significant scope by a major institution in either the public or private sector.

Valuation of Human Resource - Why?

Traditionally the Financial Statements, the end-product of Accounting, are supposed to contain valuable and meaningful information about the progress and financial position of a business concern. But it has now been realised that these Financial Statements fail to give any information about a very valuable asset i.e. human resources. Those, who matter too much in bringing up the concern's goodwill and reputation and keep themselves behind the scene, must be made visible even to a layman.

The balance sheet of a business enterprise must show the value of all its assets i.e. the human resources in terms of labour and managerial staff likewise all other physical resources i.e. plant and machinery, land and buildings, furniture and fittings etc. Since long, human resources have not been supposed to qualify as assets because they give no assurance for future benefits and have not any stored value like other physical assets. But this criterion seems to carry no weight because even the physical asset cannot positively hold forth a constant stored value.
assurance in this world which is proved to all sorts of uncertainties and other imponderables and contingencies. A plant, machinery, building or any other physical asset likely to give long benefits may be destroyed completely by fire or by accident etc. Even the debtors or bills receivable and other similar securities are not sure to be realised because of the uncertainties of deaths or insolvencies.

Thus making the Financial Statements more meaningful and valuable and also for providing adequate data for manpower planning and development, efforts should be made to develop standards to measure the value of human resources and to refine the accounting principles and conventions to record such measured values in the books of accounts. Needless to say that such accounting would provide ample and significant information which would go a long way to help the management in its decision-making function.

Methods of Human Resource Valuation

Measuring the value of human resources in any organisation is a difficult task as the knowledge, talent, devotion etc. cannot be measured in monetary terms; and also the probable stay of the employee with the firm in future cannot be estimated. Several methods suggested for the valuation of human resources in an organisation are the following:
1. Historical Cost Method

The Historical Cost Model of valuing human resources was first developed by William C. Pyle (assisted by R. Lee Brummet and Eric G. Flamholtz) at R.G. Barry Corporation, a leisure footwear manufacturer in Columbus, Ohio (USA) in 1967.

Under this method of valuation of human resources, all costs related to acquisition both advertisement and selection, training both formal and informal on the job, familiarisation and development of the employee and losses incurred through mistakes committed by the people concerned (since the mistakes are considered necessary for the development of the employee) are capitalised, as the benefits, arising from such cost extend to several accounting periods, and the cost is not recovered in the same accounting period. This method meets the traditional principle of accounting by capitalising all expenses which are not recovered in the concerned accounting period i.e. the principle of matching the cost with revenue is adopted under this method.

This method is very simple and useful as the historical costs are the costs which are already incurred and are something which can be definitely and conveniently ascertained.
But this method lacks systematic valuation of human resources both internal and external. Only when the human resources are accounted on systematic valuation, the quality and utility of the accounting reports will improve, facilitating rational decision making. Another limitation of this method of valuation of human resource is that it is difficult to arrive at the correct amount of cost which is not recovered in the same accounting period.

2. Replacement Cost Method

This method of valuation of human resources has been developed by Professor Eric G. Flamholtz on the basis of the concept of replacement cost first suggested by Rensis Likert.7

Under this method, the costs, for replacing the existing personnel of the organisation under the existing organisational conditions are estimated and this forms the basis for the valuation of human resources in the organisation i.e. the cost of creating a similar organisation is the financial value of the human resources in the organisation; and this must be the basis for the valuation of human resources in the organisation from time to time.

But the main disadvantage of this method is that to have an organisation similar to the existing one with the very nature and character is not possible, i.e. in actual practice it is very difficult to have an identical
replacement of the existing human resources of the entire organisation. Though the human resources of the organisation at the lower levels and middle management can be arrived at by this method and can be replaced without much difficulty, the cost of replacing the top management cannot be arrived at because the top management works as a team and any replacement will make a difference to the management and its calibre. To ascertain the cost of top management is also difficult since after training in the beginning, formal training is not given and calibre develops only through work. Another disadvantage of this method is that identical replacement value is affected by several factors; and because of the influence of these factors, the value arrived at by different persons will also differ significantly. Since the valuation of human resources in this method does not have any systematic approach, the value of human resources of the organisation arrived at by one person will differ from the conclusions arrived at by another. In addition to these limitations, it also lacks verifiability.

3. Opportunity Cost Method

This method makes valuation of the persons concerned as an asset whose availability is scarce in the organisation. Joel Dean has defined opportunity cost as "The most profitable alternative used ....... that is foregone by putting it to the present use". Hekimian and Jones suggest an opportunity cost approach to value the employees when
they state that "this (opportunity cost) is the value of an asset when there is an alternative use of it". Under this method each division of the enterprise may bid for the service of various personnel and the division with the highest bid would win the particular human resource and treat the bid as capital charge. This is added to the division's investment and is considered for ascertaining its return. To be more specific, the entire human resources of the organisation are valued on the basis of the value put on certain individuals. This method of valuation of human resources can be used when the replacement method fails.

The following are the limitations of this method:

1. Since under this method only internal reporting is possible and not external reporting, the value of the human resources ascertained by this method will be misleading and the valuation also becomes difficult.

2. Since the value is put on certain individuals and on this basis the valuation of the human resources at the disposal of the undertaking is made, some key personnel such as the Managing Director, Finance Manager or infact the entire top management are bound to be left out.

3. Since the bid is made for the personnel of the organisation the whole concept becomes irrelevant if the personnel are hired from outside.
4. Present Value Approaches

Under these approaches, the value of the human resources of an organisation can be found out in two different ways:

- By discounting the future salaries and other capital costs (such as costs incurred on hiring, recruiting, training and developing employees) by a certain rate of discount;

- By discounting the future earnings of the organisation at a certain date by a suitable rate and allocating a part of the present value of earnings to human resources.

In consonance with the above two premises, a number of valuation models have been developed.

**Lev and Schwartz Present Value of Future Earnings Model**

The model of measurement of human capital suggested by Brauch Lev and Aba Schwartz is based on the economic concept of human capital. Capital is defined as a source of income over a period of time and its worth is the present value of future incomes discounted by a certain rate. Irving Fisher, one of the originators of human capital theory states that "the value of capital must be computed from the value of its estimated future net income, not vice versa." However, a close look at the definition of capital and its valuation shows that Fisher does not talk of human or non-human capital separately. However, the valuation of human capital is as important as that of non-human capital because human beings have the productive
capacity and are one form in which wealth can be held.

According to Lev and Schwartz\textsuperscript{11}, the Value of human capital represented by a person of age \( r \) is the present value of his remaining future earnings from his employment. They have given the following formula for calculating the value of an individual:

\[
V_r = \frac{I(t)}{(1 + R)^{t-r}}
\]

Where \( V_r \) = the value of an individual \( r \) years old.

\( I(t) \) = the individual's annual earnings upto the retirement.

\( t \) = retirement age.

\( R \) = a discount rate.

Lev and Schwartz are of the opinion that "the determination of the total value of a firm's labour force is a straightforward extension" of the measurement procedure of an individual value to the organisation. They have divided the whole labour force into certain homogeneous groups such as unskilled, skilled, semi-skilled, technical staff, managerial staff, etc. and in accordance with different classes and age groups. Average earnings stream for different classes and age groups are prepared for each group separately and the present value for the human capital is calculated. The aggregate present value of different groups represents the capitalised future earnings of the firm as a whole. They have advocated the use of 'cost of capital'.
rate for the purpose of capitalising the present value of the future earnings of the employees.

Thus, in brief, the model identifies an individual's expected economic value to the organisation on the basis of his future earnings for the remaining active service life. His future expected income stream is discounted by an appropriate rate to arrive at the present value of his services. The value of total human resources of an organisation is found out by aggregating the present value of all employees.

However, the model suffers from the following deficiencies:

- A person's value to an organisation is not determined entirely by the person's inherent qualities, traits and skills but also by the organisational role in which the individual is placed. Moreover, the individuals' skills and knowledge are not valuable to an organisation in the abstract form. They are valuable only when such qualities serve as a means to achieve the organisational goals.

- The model also does not take into account the possibility and probability of an individual leaving the organisation for reasons other than death or retirement. It may be stated here that people quit organisations for a variety of reasons.

- The assumption of the model that people will not make
role changes during their career with the organisation, also seems to be unrealistic. In the organisations, employees are quite often transferred to other Departments within the organisation. Their role also changes when they are transferred on promotion.

Jaggi and Lau have stated that "the neglect of these variable reduces the usefulness of the model considerably. But inspite of these shortcomings, this model made a valuable contribution in the field by introducing the economic value concept to Human Resource Accounting".

Flamholtz Stochastic Process with Service Rewards Model

The Flamholtz model identifies the major variables that determine an individual's value to an organisation. According to this model, the ultimate measure of an individual's value to an organisation is his expected realisable value. Relying on the economic value concept, the expected realisable value of an individual is the present worth of future services expected to be provided during the period he is expected to remain in an organisation. This is based upon the notion that human beings, like all other assets, are capable of providing future services that have economic value.

The model is based on the presumption that a person's value to an organisation depends upon the positions to be occupied by him in the organisation. The movement of people from one organisational role to another is a
stochastic process with rewards. As people move and occupy different organisational role (i.e. service states), they render services (i.e. rewards) to the organisation. However, the roles they will occupy in future will have to be determined probabilistically for each individual.

The model suggests a five step approach for assessing the value of an individual to the organisation:

- First of all, the period a person will remain in the organisation i.e. his expected service life will have to be forecast.

- The second step involves the identification of the service states i.e. the roles that he might occupy, including, of course, the time at which he will quit the organisation.

- Third, the value derived by the organisation when a person occupies a particular position (i.e. a service state) for a specified time period will have to be estimated.

- The next step is to estimate the probability of occupying each possible mutually exclusive state at specified future times.

- And finally, the expected service rewards to their present value will have to be discounted at specified predetermined rate.

According to Prof. Flamholtz, an individual's
expected realisable value is determined by two factors: (i) the individual's conditional value, and (ii) the probability that the individual will maintain his expected service life. The product of these two variables is the present worth of services actually expected to be derived by an organisation. An individual's conditional value may be defined as the present worth of the potential services that are expected to be rendered to the organisation. This value, in turn, consists of three factors: productivity, transferability and promotability. Productivity refers to the services an individual provides while occupying his present position. Transferability is a set of services an individual is expected to provide if he is transferred to a same position level in a different Department of the organisation. Promotability is a set of services an individual is expected to provide at higher level position.

Further, an individual's conditional value is determined by two factors: (i) his skill, and (ii) his activation level. An individual's skill may be defined as the currently developed potential to provide services to an organisation. Activation level of a person is the extent to which that person is affected by motivation.

Besides the personal factors determining the conditional value of an individual, there are organisational factors as well. These are: (i) the role occupied/performed by the individual within the organisation, and (ii) the
organisational rewards. A role may be defined as a set of behaviours expected of all persons occupying a specific position in an organisation. On the other hand, organisational rewards are the benefits which people expect from the organisation during their tenure with it.

The validity of the above determinants of an individual's value to an organisation was empirically tested by Prof. Flamholtz in an international firm of Certified Public Accountants (CPAs) in United States. In this field study, it was observed that besides the above determinants of an individual's value to an organisation, four other variables - attitudes, abilities, traits and the individual's manager - were also identified. Thus, keeping in view the above findings of the field study, Prof. Flamholtz has presented a model of the determinants of an individual's value to an organisation.

Prof. Flamholtz's model is certainly an improvement over the Lev and Schwartz model discussed earlier. It takes into account the factors relating to the possibility and probability of employees career movement and of their quitting the organisation for reasons other than retirement or death. In short, the model assumes that individuals move through a set of mutual exclusive organisation roles (described as service states) during a time interval. The model depends on the estimation of the probability that an individual will occupy each state in the set of mutually exclusive states.
However, Jaggi and Lau have observed that Flamholtz’s Model "when examined on operational capability... falls short of a practical value in as much as that 'probabilities will have to be determined for each individual occupying various service states, and these probabilities will have to be determined for all employees for 'n' periods on an individual basis." Further, it will be tremendously expensive way to predict career movements or exit probabilities on an individual basis."

In addition to the above difficulties in implementing the model in real life situations, it has also been advocated that 'data developed on the basis... (predicting the stay or promotion chances of employees on an individual basis) will involve large variance which will reduce the usefulness of the model'.

**Jaggi and Lau's Model of Human Resource Accounting**

This model is based on valuation of groups rather than individuals. The 'group' in an organisation refers to a homogeneous group of employees who may be working in different departments. The information generated by 'group valuation' will provide a basis for predicting, with greater accuracy, the career movements of the employees within the organisation and the chances of their quitting the firm at any time. It may be stated here that it is really difficult to predict the stay of an employee on an individual basis, but on a group basis, it becomes easy to ascertain the
percentage of a particular group likely to remain with or leave the organisation or to be promoted to the higher ranks during each of the forthcoming periods.

In their model, Jaggi and Lau have suggested the use of Markov Chain representation to consider the career movements of the employees within the organisation and the chances of their retirement or death. The proposed model requires the determination of the Rank Transitional Matrix and the expected quantities of services for each rank of service. The Matrix is prepared from the historical personnel records usually available in an organisation. For the purposes of measurement of expected quantities of services, a certain service or performance criteria is needed.

The model includes data on the historical movement of groups of employees within an organisation into a Rank Transitional Matrix (i.e. an estimate of the probabilities of a group's career movements). The value of the services an organisation's current employees render in a future period is calculated by multiplying the estimated number of current employees that will be there in each service state in that period, by the value of the services an employee in each state (i.e. rank) renders to the organisation. The essence of the model is presented in the following equation:

\[
[TV] = [N] \cdot r^n [T]^n [V]
\]

\([TV]\) = Column vector indicating the current
value of all current employees in each rank.

[N] = Column vector indicating the number of employees currently in each rank.

n = Time period.

r = Discount rate.

[T] = Rank Transitional Matrix indicating the probability that an employee will be in each rank within the organisation or terminated in the next period given his current rank.

[V] = Column vector indicating the economic value of an employee of rank during each period.

Prof. S.K. Chakraborty’s Model of Human Resource Valuation

In the context of Indian industry, Dr. S.K. Chakraborty made a pioneering contribution by suggesting a model of valuation of Human Resources of an organisation. He suggested that it was most appropriate to include human assets under the head 'Investments' in the Position Statement of an organisation, prepared at the year end. Inclusion of it under the head 'Fixed Assets' could cause problems of depreciation, capital gains or losses upon exit, etc. Prof. Chakraborty is not in favour of including them even in 'Current Assets' on the ground that this will not be in conformity with the general meaning of the term.
In his model, he has valued the human resources in aggregate and not on an individual basis. However, managerial and non-managerial manpower can be evaluated separately. The value of HR on a group basis can be found out by multiplying the average salary of the group with the average tenure of employment of the employees in that group. The average annual salary payments for next few years could be found out by salary grade structure and promotion schemes of the organisation.

He has further suggested that the recruitment, hiring, selection, development and training costs of each employee be recorded separately. These could be treated as deferred revenue expenditure to be written off over the expected average stay of the employee in the organisation. The deferred portion should be shown in the position statement of the organisation. If there is a premature exit on account of death, retrenchment, etc. then the balance on the deferred revenue account for that year attributable to that person should be written off against the income in the year of exit itself.

The discount rate for the purpose of ascertaining the present value of the estimated payments in the future should be taken as the 'expected average after-tax return on capital employed over the average tenure period'. Dr. Chakraborty suggests 'the adoption of such a long term rate in order to avoid fluctuations in human asset valuation from year to year simply due to changing annual rates of return.'
In a year of low rate of return, the valuation will have an upward bias, and conversely in a year of high return the valuation will have downward bias.

There are various other models of valuation of human resources which have been discussed in the second chapter.

**NON-MONETARY MEASURES**

The socio-psychological model developed by Likert attempts to provide non-monetary information about the present and the expected future attitudes, behaviour and satisfaction of a firm's human resources. Likert developed a conceptional model that incorporates a number of variables to be measured to arrive at productive capability of an organisation. He has identified three classes of variables which are important to the profitability of a firm.

According to W. Carper "problems, however exist here. The variables can be difficult to categorise. The correlation and co-variance of the independent factors involve complex analysis. Also, continued tests are needed to generate sufficient data from which to develop conclusion about the impact of management decisions." At the same time doubts have been expressed regarding the validity of Likert's assumption that performance is a function of satisfaction. The research studies conducted later by Likert and Bowers suggested opposite relationship indicating that satisfaction is a function of performance and not vice-
The present state of affairs in Indian enterprises, both in public and private sectors, regarding valuation of human resources is not at all encouraging. In this connection, it may be mentioned that in practice even the top private sector enterprises do not seem to recognise the need for valuation of their human resources. One possible reason for this state of affairs may be that it involves costs in time and effort for which there is not much direct benefit (say) in terms of higher productivity or operational efficiency of employees.

As far as the public enterprises are concerned, although some publish the value of human resources in their Annual Reports, their number is still quite small. Notable among these are Bharat Heavy Electricals Limited (BHEL), Cement Corporation of India (CCI), Project and Equipment Corporation (PEC), Engineers India Ltd. (EIL), Minerals and Metal Trading Corporation (MMTC), Hindustan Shipyards Ltd., Steel Authority of India Ltd. (SAIL) and Oil India Ltd. (OIL). However, there is no uniformity of approach discernible in the human resource data published by these undertakings.
Objectives of the Study

The present study has been designed with the following objectives:

1. To examine the usefulness of HRA in managerial decisions of the Indian enterprises.
2. To make a comparative evaluation of selected companies in the private sector and some public undertakings as regards the usefulness and practicability of HRA.
3. To ascertain which methods of human resource valuation are relatively more widely practised.
4. To find out the reasons why HRA is not practised by a large proportion of the organisations covered by our survey.

RESEARCH METHODOLOGY

To complete the project namely 'Human Resource Accounting - A Comparative Study of Indian Enterprises' and to achieve the objectives of the study the following methodology has been adopted.

Initially it was decided to include ten enterprises from the public sector and ten from the private sector to keep the survey within manageable limits. It was further decided that five companies practising HRA from each sector and five others from each of the two sectors not practising HRA could be covered in the survey. However, the number of private sector companies practising HRA were only three out of fifty large companies of which annual reports
were examined. These fifty companies were chosen from the list of large companies published in 'Bombay Stock Exchange Directory'. Of the three companies again 'TELCO' had just started practising HRA when the survey was contemplated. Hence only the other two companies practising HRA namely - ACC and SPIC were included in our survey of companies practising HRA in the private sector.

Thus the survey includes ten enterprises from the public sector of which five are practising HRA and five other not practising HRA. The ten public sector enterprises are:

Those practising HRA: BHEL, NTPC, CCI, SAIL, MMTC.
Those not practising HRA: IOL, NPCC, NPTC, IDPL, ITDC.

For a comparative study of HRA practices in the private sector two companies practising HRA and five companies not practising HRA were finally selected for study. These companies were:

Those practising HRA: ACC, SPIC.
Those not practising HRA: JCT, EICHER, ESCORTS, CCL, TISCO

The organisations covered were selected primarily on the basis of the researcher's accessibility to the executives for opinion survey. The information regarding HRA has been collected through questionnaire and from annual reports. For collection of data, both primary and secondary sources have been tapped. Primary information was collected through opinion survey and secondary information from
published and unpublished reports. The collected data has been presented in tabulated and graphic form and further analysed with the help of statistical tools such as averages and indices. Initially an attempt was made to apply correlation and chi-square test but on application these tests were found wanting and hence discarded. Overall ten executives from each of the companies included in survey were requested to report to the questionnaire. In short, opinions of 170 executives were obtained through the questionnaire method.

To bring the project scheme into thesis form the whole study has been divided into chapters as given below:

CHAPTER PLAN

The thesis is divided into six chapters. The introductory chapter (Chapter-I) has been devoted to the nature of the subject matter of study, its concept, evolution, need, valuation method, objectives, methodology, scope and constraints. The main findings of the earlier researchers and the literature concerning this topic are discussed in Chapter-II. Chapters III and IV carry a detailed discussion and analysis of the viewpoints of the executives as well as shareholders and investors of public and private sectors respectively. And a comparative analysis of these viewpoints has been conducted in Chapter-V. The summary of findings and conclusions is presented in Chapter-VI.


**Constraints of the Study**

The researcher is conscious of the limitation of methodological approach in research study involving opinion survey through questionnaire and interview. The responses of the executives in the present work may have been governed by the desirability of the responses rather than the genuine responses which might be desirable from the point of view of public opinion. This is one limitation of opinion survey.

- Another limitation is that the opinions expressed by respondents may be subject to the mental disposition or mood at the time of giving the opinion. However, these limitations have much less standing if the number of respondents is adequately large. The responses taken together may be regarded as reasonably reliable for the purpose of drawing inferences.

- The enterprises in public and private sector covered in our survey do not include enterprises operating with foreign collaboration and equity participation. It is possible to argue that if companies abroad have been practising HRA and such companies are in collaboration with Indian Companies, then there would be a strong possibility of human resource accounting being practised by the enterprises having foreign collaboration. However, we have not examined the case of enterprises in India with foreign collaboration mainly for two reasons:
First, the main objective of the present study is to enquire into the executives' opinions in the public sector enterprises as compared with those in the private sector enterprises.

Secondly, the number of companies practising HRA is so few that to expect enterprises having foreign collaboration and hence practising HRA may be considered very unlikely.
REFERENCES


