CHAPTER II

REVIEW OF LITERATURE AND METHODOLOGY

2.1 Overview of Literature

Over the last couple of decades economic historians and social anthropologists have worked on the theme of plantation production system in the colonies. Geographically these studies chiefly centre around South American plantations, those in the Caribbean islands, Sri Lanka, Indonesia, Malaysia and India.

Beckford, (Persistent Poverty: Underdevelopment in Plantation Economies of the Third World, 1984) pursuing a neo-Marxist framework in analysing various plantation economies and societies the world over, has argued that the plantations in the colonies were not agents of development as claimed by modernisation theorists, but rather tributaries of imperialist-expansion. De Silva
and Erik Meyer (The Political Economy of Underdevelopment, 1982) have offered an extensive criticism of the dualist interpretations of Snodgrass for whom the Sri Lankan plantation economy was in the nature of a foreign enclave. The plantation village nexus finds a place in Kooiman’s works too. (Plantations in South Asia, 1992)

India is one of the large tea producing and exporting countries in the world. Its annual production is around 700 million Kgs out of which 200 million Kgs are exported. With around a 10,00,000-strong permanent workforce, tea industry is also one of the largest employers in the organised sector. The four major tea producing states are Assam, West Bengal, Tamil Nadu and Kerala. Tripura, Himachal Pradesh, Karnataka, Utter Pradesh, Sikkim and Bihar also produce limited quantities of tea. Assam is the largest tea producing state with an annual production of 380 million Kgs. and a total of 5,00,000 workers. Kerala produces around 70 million Kgs and employs 1,00,000 permanent workers.

Studies relating to the plantations in India began in the early 1930s. However, most of the published work on tea plantations in India are about tea in North India. Griffiths has done a commendable work on the history of the South Indian Tea. He states that the plantation sector emerged in India in the early 1830s when the East India Company was seeking alternative sources for procuring tea to Europe. His book, History of Indian Tea Industry, (1967) contains a detailed account of the beginning of Tea cultivation in India, the early labour problems, the
problems faced by planters, recruitment of labour, the associations of planters, Trade Union movement etc. For the most part the book deals with plantations in North India with particular reference to Assam. The author justifies his position citing availability of extensive source material from associations and government departments in those areas. Therefore, his work on plantations in South India is limited in scope and detail. The information available is confined to production of tea, marketing, expansion of tea export to Europe, scientific research and development, transport and communication. He does remark on labour conditions, recruitment and so on. However, there is no attempt made to investigate management style, functions or the conditions of life in working class colonies.

UPASI (United Planters Association of South India), a planters’ association published *Handbook of Plantation Facts*, a collection of articles by various hands, highlighting the history of the association, its activities, the reports of its meetings held between 1893 and 1953. The focus is almost exclusively on the difficulties faced by planters in their work and on their day-to-day lives. The articles are mainly based on personal experiences of the authors and are illustrated with photographs of members of UPASI, tea plantations and tea processing industries.

TATA-Finlay Ltd. published a book titled *Facets of a Hundred Years Planting*, (1978) on the history of Munnar Tea Plantations from 1878 to 1978. The hundred years of planting history describes the planters’ efforts only.
The Labour Bureau study on condition of women workers in the plantation sector was carried out in 1981 to examine the problems faced by women labourers in their working, living and social conditions. The study also brings out welfare measures available to women workers vis-à-vis labour laws, applicable to women workers in all of the plantation sector in India. It was found that women workers were equally skilful, and in some cases more competent than men workers. But lack of education and training deprived them of promotion to skilled and supervisory jobs. Managers did not want to appoint women supervisors because they feared that women would not be able to exercise proper control over the workmen. The crèches lacked adequate facilities, and so became quite unpopular. No toilet facilities were available at the work place. There were hardly any medical facilities available to people in smaller plantations. Housing facilities were of low quality. According to this study a majority of women workers were members of one or other trade union; but few of them took part in the union activities.

Rachel Kurian (*The Position of Women Workers in Tea Plantation in Sri Lanka*, 1981) discusses how the plantation sector emerged and developed in the 19th century under British rule by importing labour from the famine prone areas of Tamil Nadu. This led to the migration of large numbers of lower and sub-caste Tamil labourers to Sri Lanka. They recruited labour through middlemen and this came to be known as the Kangani system. The Kanganis came from the higher castes and had western education. They not only supervised the workers but
controlled the estate markets where they sold food products at prices of their choice. The Kankanis in due course became influential, wealthy and powerful in the estate.

Shobhita Jain’s book, *Sexual Equality, Workers in Assam Plantation System* (1988) covers labour and gender relations, economy, family, marriage and world view and their sociological import. The author highlights the emergence of tea plantations in Assam and the method of recruitment that prevailed during the colonial period. She points out that labour from lower castes and tribals were recruited from Bihar, Orissa, Andhra Pradesh and West Bengal at very low wages through garden sardars. These sardars are similar to kankanis in Southern India.

Sharit Bhowmik’s study *Class Formation in the Plantation System* (1981) is related to class formation among tribal workers in West Bengal. The workers had migrated from Chota Nagapur. Before migration they had worked as wage labourers and peasant cultivators; their traditional mode of activities were changed to specific conditions of wage labour. Naturally, this process brought with it changes in the worker’s standing. The author remarks on the method of recruitment, trade union activities in the early period, and the social customs of the tribals.

Sib Ranjan Mishra (*Tea Industry in India*, 1986) has carried out an extensive study of the tea industry in West Bengal and its economy, identifying problems and the current state of the industry.
Goutam K. Sarkar’s work on world tea economy (The World Tea Economics, 1972) is focussed on production and consumption of tea world wide and its demand and supply in the market, price fluctuation, income from tea industry, and review of world tea trade.

Ms. Sunila N Singh’s study on women plantation workers in Tamil Nadu states that the method of recruiting and organising labour created a hierarchical and patriarchal structure characterised by semi-feudal attitudes towards workers, especially towards women. As these attitudes were retained and promoted, women came to be considered inferior to men in supervisory and managerial functions.

Dr. Tessy Kurian (*A Study of Women Workers in the Plantation Sector of Kerala*, 1999) looks at the role of women workers in the plantation sector of Kerala. She examines the living conditions of women workers. She finds these far from satisfactory, and makes elaborate recommendations for improving them.

A.K. Sen (*Inequality Re-examined*, 1992) investigates the inequalities related to such categories as class, gender and communities. He discusses the low profile of women workers in the labour force and argues that mutual co-operation and enforcement of policies by the management and government will improve the ability of rural women to make substantial contribution to economic production and prosperity.

Indian Institute of Plantation Management established at the joint initiative of the Ministry of Commerce and the plantation industrialists as HRD centre for the plantation industry, has made some studies on the problems of human resource management in tea plantations. Subhash Sharma, the Director, IIPM has proposed the BEST model for this new approach. The model includes the following elements:

B - Behavioural
E - Economic
S - Strategic
T - Technical

Sharma suggests a paradigm shift from lines of conflict to lines of confidence at the behavioural dimension. The traditional approach to labour
management and industrial relations had been rooted in the conflict paradigm wherein labour and management are locked up in adversary positions. With liberalisation, globalisation and increased competition, the approach has to switch over to the cooperation paradigm. Instead of the conflict position, mutual confidence among members of the corporate community has to be developed, and development of everyone concerned should get priority over disputes.

Estate performance agreement system is another technique developed by plantation management experts to meet new challenges. This is a system in which the basic operation unit of a plantation company, viz. an estate, is given greater autonomy and accountability. Estate performance agreement includes a written document prepared after consultation between the corporate office and an estate for a predetermined level of performance at the beginning of a year. This is an element of Total Profitability Management (TPM). The profitability to be generated by each estate is predetermined in such a way that together they add up to the company’s total profitability target. In this system the company empowers the organisational unit, viz. the estate, with greater autonomy and accountability. This may be treated as a step towards decentralisation with focus on specific accountability. The system creates an autonomous environment for the enterprise, its constituent divisions and the managers. This is achieved through decentralisation and devolution of decision making defined within the parameters of the agreement.
The system carefully identifies the key performance variables, the emphasis on them as well as possible levels of derived performance for each of the variables.

The total performance is measured with the help of two types of performance indicators, viz. static indicators and dynamic indicators. The static indicators reflect the physical and financial aspects of performance like production, sales turnover, and profit after tax etc. Dynamic performance criteria include estate maintenance, training of manpower, estate infrastructure etc. Unless these are taken care of the long-term interests of the company may suffer. These measures aim at tapping the latent potential of the organisation. Weightage will be given to each indicator. This is decided through a consultation between the corporate officials and the organisation unit officers at the beginning of the year itself. The estate or organisational unit is given a composite score after considering the achievement in all criteria and their corresponding weightages. The score can be interpreted as excellent, very good, good, average etc.

This estate performance agreement system provides for greater clarity with respect to target setting in terms of various performance criteria, and their weightage as well as level of performance. Since it is a negotiated agreement the managers are clear as to what they are accountable for. Hence monitoring and control may be restricted to the specified parameters of performance only.

Most of the work on HRD initiatives in public and private sectors focus on the use of HRD instruments like performance appraisal, potential appraisal,
training, role analysis etc. in developing human resources. These mechanisms will only have a limited applicability or relevance to promoting worker’s welfare. In the Indian context, the scope of HRD should be wide enough to include the role of trade unions and workers’ involvement in planning and development. This country is heavily dependent on labour-intensive industry. It is quite common for workers to get unionized. It is appropriate, therefore, to rethink the role and function of management vis-à-vis the work force. The only true alternative to the conventional management paradigm is the Gandhian conception which looks beyond productivity and profit to the human cost of economic growth and organisation success. The overriding concern would be to safeguard the freedom and dignity of the individual worker through ever greater devolution of powers and rights within the enterprises. Participative management, share-ownership and profit sharing are concrete steps that might be taken to realise this goal. Obviously, this would require a complete overhaul of the concepts of ownership and management.

2.2 Statement of the Problem

It would be too much to expect modern management to adopt the Gandhian approach in its totality. This study is merely exploratory, the aim being to find out how current management thinking and practice could be remodelled along Gandhian lines. The plantation industry, being highly labour intensive, was selected as a testing ground for this radically new approach to human resource management. There is a constant effort made to develop a worker’s skills and
aptitude. In all this, however, the total structure of his personality is hardly ever taken into account. While technical competence can be produced by the right kind of training, no amount of training could bring forth dedication and commitment. For this to happen there must be scope for creativity and initiative. The worker needs to feel a keen sense of partnership and involvement. The cardinal principle is that man ought to be the centre of all developmental ventures. Therefore, a reorientation of human resource management theory towards the ideals of justice, equity and humanity is felt to be the crux of the problem.

When a human being as worker comes into an enterprise he does not merely bring his two hands and some calories of energy, but a live personality with potentiality for growth. He is capable of participating in business activity in his own right. Participative management is critical to an economic system run on democratic lines. In this system man is not viewed as a resource but as an active partner in business. However, management functions as practised at present give little heed to these needs. Invariably, this leads to strained relations between management and labour with repercussions on general social welfare.

In general the labour force in Kerala is unionised, politicised and enlightened. They are aware of their individuality and rights. A more integrative relationship in which the dignity and freedom of the individual is respected could improve industrial peace. For their part, the unions need to adopt a positive approach, too.
The tea plantation industry in Kerala with a history of about three centuries has become one of the major industries in the state. A good number of statutory laws have been enacted to protect the industry and the interests of the labour force. Yet, the living and working conditions and the life-style in general has not improved much compared to modern developments in other sectors. The management practices and systems are more or less the same as those of the earlier British proprietors in which a very strict hierarchical order and feudal elements prevailed. Trade union activities are limited to certain spheres only. Union leaders are politically motivated, and often work in collision with the management to the detriment of the labourers. The plight of women workers seems to be even worse. The Gandhian way of management and the Gandhian idea of trusteeship could form the basis of a new industrial culture. It would give fresh impetus to the dynamics of interpersonal relationships. The tea plantation industry with its peculiar socio-economic structure seems to offer an ideal area for the application of Gandhian notions of personnel management. A humanistic approach, particularly of the Gandhian conception, could go a long way towards easing tensions in the industrial sector and improving the quality of life of the people concerned. How far Gandhian thought could help to foster better relations in the plantation sector is to be closely scrutinised. Hence, the problem is stated: “Human Resource Management Practices in Tea Plantation Industry: A Gandhian Critique”.
2.3 The Rationale of the Study

Ever since the Hawthorne experiment of 1930 extensive research has been undertaken to determine whether better employee care increases productivity in different national settings as the political, social, cultural and economic situations vary greatly in different countries. The outcome of the studies conclusively demonstrates that concern for employees on the part of management remains the outstanding factor in furthering productivity even under varying environmental conditions. Modern management theory increasingly focuses attention on the welfare of employees as the cornerstone of organisational success. But the present developmental culture turns man into an object. His skills are developed, his efficiency is enhanced, so that the industry may reap fat profits. The individual may gain some material benefit in the process. Making man into an object amounts to degrading and dehumanising him. Man ought to be the centre and subject of all developmental culture. Hence, a reorientation of developmental culture that would take account of the centrality of the human person is of the utmost importance. The present study is meant to highlight the need for just such re-orientation of HRM theory and practice.

India is justly proud of a very ancient and rich cultural and spiritual heritage. But the cultural, spiritual dimensions are not reflected in the professionalisation of personnel management in this country though Chakraborthi and others have done some pioneering work in this line. India with its spiritual
heritage could contribute to a new thinking in this area and perhaps set a model of holistic development to the whole world. The management profession in India needs to be sensitive to this need of the nation and of the time. Development in skills and technology may provide short-term competitive advantages, increase productivity, but it may not be sustainable in the long run. Moreover a good many problems created by developed and industrial nations and the developing nations such as the ecological problem, neo-colonialism, spiritual stagnation etc. are the products of one-sided and unbalanced development. Business institutions, therefore, have to include the person, his family and the society, in their development strategy. Such development could not confine itself to the secular and mundane dimension only but must incorporate ethical, moral and spiritual values. The present study is an attempt to examine these issues, to find a new direction and a new management formula incorporating spiritual and cultural values.

The Gandhian way of management with its focus on the values of non-violence, truthfulness, trusteeship and dignity of labour could be an answer to the complex problems confronting the business community and the society at large. It is distinctively humanitarian in approach. This could go a long way towards sustainable growth of the economy. It would be truly Indian, fully incorporating the culture and heritage of the country. India has a distinctive tradition of upholding the divine nature of man. This conception was taken over by Gandhiji and made
the cornerstone of his thinking on non-violence and devotion of truth. The tea plantation industry with its peculiar socio-economic structure seems to offer an ideal testing ground for the application of Gandhian notions of personnel management. The problems of practical application need also to be looked into.

The present system of labour relations is mainly an outcome of the tripartite committee involving the management, government and workers. This Committee iron out the differences on wage and related matters. Other issues are governed by statutory laws and standing rules. Still, the quality of life and living conditions of workers have not changed much compared with other industrial sectors. The Gandhian ideology could perhaps be a more efficient means of achieving this as it could empower the workers and promote a healthier inter-personal relationship. Hence the modern human resource management system could be extended and enriched with the incorporation of Gandhian ideals. How this integration could be achieved is also to be studied. This has not received sufficient academic attention. An attempt is made here to fill this gap.

Tea plantation industry has been selected for the purpose of the present study for the following specific reasons:

1. It is the largest plantation industry in the country providing employment to 10 lakh people directly and to an equal number indirectly in ancillary activities.
2. It contributes substantially to the total value of industrial production, making maximum use of locally available input. Plantation industry is, in fact, the least import content industry.

3. It has throughout occupied a prominent position in the trade union movement of the state. At the same time, management associations are equally strong and the scope of interaction between the two is quite high. A new proactive management style is the need of the time in order to ensure the sustainable development of the industry as a whole.

4. The plantation industry occupies a prominent position with respect to area, income, volume, export and taxes collected.

   No detailed, in-depth study has yet been made of a Gandhian approach to tea estate management. Hence the problem is analysed from a Gandhian perspective.

2.4 Objectives

   The study aims to understand the development of tea plantation management system in Kerala from a Gandhian perceptive. In specific terms, the objectives are:

1. To enquire into the theory and practice of human resources management in the present industrial world.

2. To enquire into the Gandhian foundation of people management.
3. To assess the prevailing system of human resources management in tea plantation industry with reference to the satisfaction of workers.

4. To study workers’ appraisal of the role of trade unions in securing better living and working conditions.

5. To study how workers would respond to a Gandhian style of management.

6. To examine the managerial cadre’s views on the feasibility or otherwise of the Gandhian approach to people management.

7. To evolve a Gandhian model of human resource management in tea plantations that would place the needs of the human person on a par with productivity and profit.

2.5 Hypotheses

The hypotheses guiding this investigation may be stated as follows:

1. The present system of human resource management in tea plantation is not conducive to the creation of a humane integrative work environment.

2. Trade Union activities as conducted at present cannot advance the cause of a person-centred work culture.

3. There is significant difference of opinion between management and labour as regards the adoption of a Gandhian style of management.

4. The Gandhian model of human resources management could better integrate workers and management in a common pursuit of mutually beneficial goals.

2.6 Pilot Study
The first step in the process of data collection was a pilot study undertaken to collect preliminary information regarding the scope for carrying out the study. The researcher’s concern was to gain insight into the psycho-social attitudes of the workers and managers in tea plantations. The M.M.J Plantation was selected for the study.

During the study the investigator contacted the company managers, estate managers, trade union leaders, workers and APK and UPASI. It was found that the study was feasible. The various agencies and personnel operating in the field assured their full co-operation for the successful conduct of the study. Further, the pilot study helped the researcher in defining the elements and limits of the universe and sample to be selected for the study. The number of respondents to be covered by the study was also fixed during the study.

The pilot survey and the consultations helped the researcher to gain preliminary insights into the variables of the study and the particulars to be included in it.

2.7 Nature and Source of Data

The data required for the study consisted of both primary and secondary items. Primary data pertained to such variables as the nature of empowerment, effectiveness of trade union, viability of the Gandhian model etc. These were to be collected directly from the respondents placed at different estates. Respondents consisted of workers, managers and trade union leaders.
A major share of necessary data on the problem was lacking because no detailed, in-depth study had been made on the key variables of a Gandhian approach to tea plantation management. Hence, primary data was collected to analyse the problem.

The original works of Mahatma Gandhi are treated as a primary source of data. The ideas and attitudes of experts in the field of management, both practitioners and academicians, and the researcher’s own observations are treated as primary data.

The secondary data for the study covered the theories of human resource management, the methods of tea plantation management, relevance of Gandhian ideals etc. These were collected from the existing literature on the subjects. The various statutory laws and standing rules of tea plantation management, judicial pronouncements, proceedings of the tripartite committee etc. were consulted for the purpose. Reports in the dailies and weeklies were also considered and treated as secondary data.

2.8 Universe and Sample

India has the largest cultivated area of tea among all tea producing countries of the world. Assam and West Bangal in North India, and Tamil Nadu and Kerala in South India are the major tea growing regions in India. Of the South Indian acreage Tamil Nadu has 57% and Kerala accounts for 41%. Out of the total 34,450 hectares of tea plantation in Kerala 23,337 hectares (67%) are situated in
Idukki district. Hence the universe is limited to tea plantations of Idukki district standard.

An estate is treated as the standard unit of tea plantations. There are small holders owning up to 50 hectares of plantation. They will not have a factory of their own, and the estate rules are not applicable to them. Hence they are excluded from this study. Only estates which have more than 250 hectares are included in this study. Only such estates can feed the factory throughout the year, and function on its own level both in production and sale. There are 47 such units in Idukki district. These units were stratified into three:

1. Companies owning more than 10 estates.
2. Companies owning fewer than 10 estates but more than one.
3. Companies owning only one estate.

In the first category there is only TATA Company owning 24 estates. In the second category there are 7 companies with a total of 15 estates and the third category has 5 companies (5 estates).

The employees and managers of these units formed the universe of this study. Since the population size is large, sampling was adopted in the field survey. Stratified random sampling was adopted for the selection of units. From each selected unit three categories of respondents viz. representatives of managers, workers and trade union leaders, were identified. Data were collected from 15 estates and 400 respondents from among the workers were interviewed. The
respondents’ size would be sufficiently representative to generalize the findings of the entire industry in the region. The findings could also be generalized as far as the state is concerned as the industry has homogeneous character except minor variations depending on the size and nature of companies involved. The respondents were selected from the muster rolls. However, at the time of scrutiny, 77 cases were deleted due to incomplete information. Thus the final sample consisted of 323 workers.

From among the management cadre one person from each unit was interviewed for the purpose of data collection. In addition, 3 women managers and 2 managers working in packeting and audit section were interviewed. Trade union leaders were identified from among the selected units. They were interviewed for the collection of data related to relevant items. In addition to this a few cases of trade union leaders outside the estate were also included for getting a comprehensive picture of the problems and prospects of a Gandhian approach of management in estates.

Table II-1
Composition of the Sample of Respondents Selected for Field Survey

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Stratum</th>
<th>Total no. of estates</th>
<th>Name of the company in the sample</th>
<th>No. of workers in the Sample</th>
<th>No. of Managers in the sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Companies owning more than 10 estates</td>
<td>24</td>
<td>TATA</td>
<td>170</td>
<td>11</td>
</tr>
</tbody>
</table>
### 2.9 Methods and Tools of Data Collection

Observation, interview and case study were the major methods used in the present study. Data regarding the different variables of the study were collected using different tools. An interview schedule consisting of 64 items was prepared for the workers keeping in view of the objectives and hypotheses of the study. There were both positively keyed and negatively keyed statements. The likert type of five point and three point scales were used to get the responses of the respondents. The attitudes and opinions of respondents were thus assessed giving a scale value to each of the responses. All positive statements were scored as shown below. For a statement opposing this point of view, the items were scored in the opposite order:

<table>
<thead>
<tr>
<th>Positive Statements</th>
<th>Scale value</th>
<th>Opposite order</th>
<th>Scale value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Undecided</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>1</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
Similarly an interview schedule was prepared for the managers also. The schedule contained 10 items regarding the viability of the Gandhian approach to autonomy in estate management, possibility of setting up a self sufficient village, etc.

Several field visits were made to study the working and living conditions of tea plantation workers, and to get a first hand information regarding their problems. As a part of the study, consultation on key issues with experts were also done for getting an authentic and in-depth understanding on the theoretical, methodological and practical aspects of the study. Selected case studies were conducted to get practical insights into certain aspects of the life and work of tea plantation workers.

2.10 Pre-testing of the Tools of Data Collection

After preparing the tools of data collection, they were pre-tested on an actual sub-sample of the universe in the study to test its applicability. Thirty people from three estates were selected for the purpose. During the pre-test it was found that some questions were irrelevant and hence they were deleted from the final draft. The questions on Gandhian way of management were unfamiliar to the workers and had to be explained to them. The schedules were originally prepared in English but they were explained in the vernacular, i.e., in Tamil and Malayalam. Research assistants’ help was made use of for this. The interview schedule was
finalised on the basis of the findings of the pre-test and the recommendations of the experts in the field.

### 2.11 Reliability and Validity of Research Tools

Reliability is the degree of consistency that the instrument demonstrates in measuring. The tests have a high coefficient of reliability, and errors of measurement are reduced to a minimum. Reliable tests are stable in whatever they measure and yield comparable scores upon repeated administration.

The reliability of the interview schedule was established by the split-half method. The reliability co-efficient was determined by correlating the scores of two half-tests. The reliability on the full-length test was estimated using Spearman-Brown formula for Reliability of full interview schedule.

\[
 r = \frac{2r_{1/21/2}}{1 + r_{1/21/2}}
\]

where \( r_{1/21/2} = \frac{N\Sigma xy - (\Sigma x)(\Sigma y)}{\sqrt{[N\Sigma x^2 - (\Sigma x)^2][N\Sigma y^2 - (\Sigma y)^2]}} \)

The split half reliability was found to be 0.58 \( (N=50) \). This is an indication that the interview schedule is reliable for measuring human resource management practices in tea plantation industry.
The consistency of the responses was estimated by repeating the interview at another time (two weeks duration). The correlation between the responses of both the interviews were estimated and it was found to be 0.51 (N=30).

**Validity**

A test is valid if it measures what it claims to measure. Content validity refers to the degree to which the test is specifically related to the traits for which it was designed. Asking the right questions phrased in the least ambiguous way is basic to verifying content validity.

The investigator received suggestions from colleagues and experts in the field of enquiry and the items that revealed ambiguities and those which did not contribute to the investigator’s purpose were removed. A panel of experts rated the instrument in terms of how effectively it samples significant aspects of its purpose, providing estimates of content validity.

### 2.12 Data Collection

The investigator visited the fields during the free time of the workers and on holidays. Local educated youngsters were also involved in the process. The low level of education of the workers was a major impediment in collecting data. Data collection was done during the period from March to December 2001.

### 2.13 Editing, Coding and Statistical Treatment of Data

This was done through computer applications using the SPSS package. In the computer processing of the data and in selecting the statistical tools of analysis
the investigator was generally assisted by experts in the field. Statistical tools like tabular analysis, ratios, percentages etc. were applied for analytical purposes. The Z-test was applied to find out whether a significant relationship exists between various characteristics. The Likert type scale was adopted to measure various attributes of workers.

2.14 Z Test for Equality of Means

In order to ascertain whether there is a significant difference between the mean levels of satisfaction, the normal test using the Z-statistics was applied.

Here

\[
Z = \frac{M_1 - M_2}{\sigma_D}, \quad \text{where}
\]

\[
\sigma_D = \sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}, \quad \text{where}
\]

\[M_1 = \text{Mean level of satisfaction for company 1}\]
\[M_2 = \text{Mean level of satisfaction for company 2}\]
\[\sigma_1 = \text{S.D. for company 1}\]
\[\sigma_2 = \text{S.D. for company 2}\]
\[N_1 = \text{Sample size from company 1}\]
\[N_2 = \text{Sample size from company 2}\]

At 5% level of significance, we reject the hypothesis of equal mean level of satisfaction if the calculated value of \[|Z|\] is greater than 1.96
2.14.1 Z Test for Equality of Proportions

In order to find out whether there is a significant difference in the attitude of managers and workers with regard to various elements of the Gandhian model of management such as involvement of voluntary organisations, decentralised management etc. the test for equality of proportion is applied. The test statistics is

\[ Z = \frac{p_1 - p_2}{\sqrt{pq\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}} \]

Where \( P = \frac{n_1p_1 + n_2p_2}{n_1 + n_2} \)

\( p_1 = \) the proportion of workers

\( p_2 = \) the proportion of managers

\( n_1 = \) the number of workers

\( n_2 = \) the number of managers

We reject the hypothesis of equality of proportion if \( |Z| > 1.96 \), at 5% level of significance.

With regard to questions for which the respondents expressed their preferences by assigning ranks, an overall preference index was obtained by giving scores 5,4,3,2,1 etc. according as they rank 1,2,3,4,5, and then, taking the sum of products of the number of respondents and the scores. Using this overall preference index we get an idea of the relative importance of the different occupations, problems, solutions etc.
2.15 Data Analysis and Interpretation

After the statistical treatment of data, tables, charts and diagrams were prepared. Using these as guideposts the data were analysed in terms of the objectives and hypotheses of the study. The findings arrived at during analysis were then discussed in relation to the practical and theoretical insights available on the variables under consideration. On the whole the research is exploratory in nature and is based on descriptive cum analytical approach.

2.16 Definitions

**Human Resource Development (HRD)**

Theoretically, HRD is a continuous process and a comprehensive system to ensure the development of the employee’s competencies, dynamism, motivation and effectiveness in a systematic and planned way. Operationally, it consists of a set of mechanisms and techniques to initiate, facilitate and promote the process in a continuous way. These are called HRD sub-systems. Performance appraisal, potential appraisal, career planning, employee training, organization development, human resource information etc. are some sub-systems.

**Workers**

The international labour office (Workers’ participation within undertakings, Geneva, 1981) defines the word worker as a person accountable for his work alone.
A worker in the study is a man or a woman working in the field, pruning, manuring etc. or plucking or doing other duties assigned by the officer / manager. The term also covers others who are working in the factory.

Manager

Manager is a person who is accountable for his work and for the work of his subordinates as well. In the present study, the manager is a person who is in charge of an estate. Assistant managers and field officers are also included in the managerial cadre. The supervisory staff are treated as middle level managers as they are accountable for the work of their subordinates and at the same time accountable for their own work.

Culture

It is a system of beliefs and actions that characterize a particular group. It involves the shared ideas, customs, assumptions, expectations, philosophy, tradition and values that determine how a group of people will behave. In this study the systems and practices of estate management are taken as organizational culture. It is strictly hierarchical in nature and tradition based in approach

Quality of Life

Quality is anything that can be improved. It is associated with products, services, the way people work, the way systems and proceedings are dealt with; both material satisfaction and vital needs and aspects of life, such as personal
development, self-realisation and a balanced eco-system are also covered by the term.

**Quality of Working Life**

This term is understood to mean the degree of excellence in work and working conditions which contribute to the overall satisfaction of the individual and enhances individual as well as organisational effectiveness. Quality of life and quality of working life are integrated in the estate as a whole and all its structures. Briefly the term implies the favourableness or unfavourableness of a job environment for people.

**Employer**

The person who has the ultimate control over the affairs of the plantation, and where the affairs of any plantation are entrusted to any other person (whether called a managing agent, manager, superintendent or by any other name) such other person shall be deemed to be employer in relation to that plantation.

**Integrative**

The term in the study is used to mean tending to the total development of the human personality, physical, emotional and spiritual, reconciling management and labour in common pursuit.

**2.17 Limitations of the Study**

The present study is only an explorative analysis of human resource management in the Gandhian vision. Materialising Gandhian vision is not an
immediate purpose of this study. We are testing the tenability of some of the elements of Gandhian approach to management.

The study is confined to Idukki district mainly because this area contains the major tea plantations of Kerala. The HRM structures and practices are homogeneous in nature all over the state. However, there may be some differences in these practices depending on the culture of the company running the industry. Sampling technique is adopted for identifying representatives of workers and managers. Small holders owning less than 250 hectares are not included in the sample. They are few in numbers and alternative HRM practices may be possible with them.

Low level of education of the workers was a limiting factor. They were to be apprised of a different style of functioning in the estate. Some of the managers were reserved in expressing their opinion, as they were too much preoccupied with the interests of the company. Time constraint was another limiting factor. The workers were to be contacted either before 7 a.m. or after 5p.m, or on holidays only. Paucity of available literature on the topic was a limiting factor.

2.18 Organisation of the Study

The study is divided into six chapters. The introductory chapter gives a brief account of human resource management, its growth and development in the Indian context. Background information of the study area is also included in this chapter.
The second chapter deals with the methodology adopted for the research. The rationale of the study, objectives, statement of the problem, hypotheses, sources of data, methods of analysis of the problem, tools employed for the analysis, limitations of the study and operational definitions are given here. Review of existing literature on the topic is also presented in this chapter.

Chapter three discusses the Gandhian foundations of human resource management. Gandhiji’s philosophy of life and the techniques he evolved in facing crisis situations and management of people are described in this chapter.

An overview of the structure and practices of human resource management in tea plantations is given in chapter four. The significance of tea plantations in the Kerala context is also surveyed in this chapter.

The fifth chapter analyses the HRM practices in tea plantations on the basis of the data collected. The practicability of the Gandhian model of management from the viewpoint of workers and managers is also evaluated in this section.

The last chapter presents a summary of the findings and conclusions of the current study. A Gandhian model of management in tea plantations is proposed in this chapter. A few suggestions are put forward for realising this aim.