CHAPTER – I
INTRODUCTION

1.1 SOFTWARE INDUSTRY IN INDIA

The growth of the Indian software industry has been a phenomenal success when measured against standard indicators such as growth in sales, generation of employment and exports, and especially when contrasted with the performance of other industrial sectors in India. Even measured against successful new exporters of software such as Israel and Ireland, the Indian software industry stands out in terms of the volume of employment created and the indigenous nature of its growth.

The Indian IT software industry consists of a large and growing number of firms. There is an association which regulates the industry on a voluntary basis. This association is the National Association of Software and Service Companies (NASSCOM), the premier trade body and the chamber of commerce of the IT software and services industry in India. NASSCOM’s member companies are in the business of software development, software services, software products, IT-enabled/BPO services and e-commerce. Using NASSCOM’s membership as a measure, the number of Indian software firms has grown from around 38 in 1988, who together contributed to nearly 65% of the industry revenue to over 1100 in 2007, who together contribute to over 95% of the revenue. Many of these firms entered the industry during or just before the era of economic liberalisation in the late 1980s.

India seems to have found the opportunity in the IT revolution as an increasingly favoured location for customized software development. India’s success
has not only led to speculation about whether other developing countries can emulate its example, but also poses a competitive challenge to software industries in the developed world.

The industry has grown at over 50% per year over the last five or six years, and if current trends continues, software exports may account for a quarter of Indian exports within the next five years. The Indian software industry faces a number of challenges as the labour cost advantages diminish and competition from other countries with supplies of educated and under-utilized workers increases. The Indian software industry’s success is due to a combination of resource endowments, and active encouragement from a normally intrusive government and good timing.

India’s most prized resource today’s knowledge economy is its readily available technical work force. India has the second largest English-speaking scientific professionals in the world, second only to the U.S. It is estimated that India has over 4 million technical workers, over 1,832 educational institutions and polytechnics, which train more than 67,785 computer software professionals every year. Government of India is stepping up the number and quality of training facilities in the country to capitalize on this extraordinary human resource. It is believed that the knowledge industry help take the Indian economy to a sustained higher rate of growth.

1.2 SOFTWARE INDUSTRY IN KERALA – A BRIEF OVERVIEW

Kerala has attained worldwide acclaim for its achievements in improving the physical quality of life of the people and in the creation of social infrastructure, particularly in health and education systems. While this focus has led to the all round quality of life that is significantly superior to that of other Indian states, industrial
growth has not been commensurate with the state’s potential. This has created large-scale unemployment and low per capita income.

Kerala offers numerous advantages to investors. It has an effective literacy rate of 90.59%, significantly above the country’s average. The literacy rate of women in Kerala is also the highest in the country. On social indicators too, Kerala is well ahead of other Indian states. It’s female-to-male ratio is the best in the country and among the best in the world. Kerala’s distinctive edge lies in the quality and adaptability of its human resource base. The high quality of manpower available in Kerala can be a lever not only for attracting high value Information Technology (IT) investment into the state, but also for widening and disseminating the IT base into small town and outlying areas spanning the entire country.

The state’s endeavour is to convert Kerala as a leading off-shore centre for provision of IT services world-wide. This will foster the social and economic development of the state and generate large-scale employment opportunities with a little pressure on land, environment and other resources.

Considering the enormous potential of IT in the globalised world, the Government of Kerala has announced IT policies in 1998, 2001 and 2007 delineating strategies for harnessing the opportunities and resources offered by Information Technology for the comprehensive social and economic development of the state. Kerala has advanced levels of literacy, education and health care system, an excellent telecommunication network reaching all towns and villages, educated womenfolk, availability of world class IT professionals and three international airports at Trivandrum, Kochi and Calicut. Inspite of all these, the performance of Kerala in the IT sector has not been spectacular compared to that of other southern states like Karnataka, Tamil Nadu and Andhra Pradesh. Kerala contributes only a nominal share
in the overall software export of India indicating the extremely low level of IT activity in the state vis-a-vis the neighboring states.

The success of every industry depends upon the employer-employee relationships. In an area like software industry, where the nature of labour inputs are highly flexible and mobile, the Human Resource Management (HRM) practices existing in the organisation and a positive response of the employees towards these practices are highly critical for maintaining a harmonious industrial relation in addition to high productivity and greater efficiency.

As people are the main resource in the software industry, lot of thrust is being given in the software firms to People Management, otherwise known as Human Resource Management. In knowledge-based organizations, the strategic strength has become knowledge and brains, rather than anything else. Human resources account for a large proportion of many businesses’ costs and it is the people that invariably drive a business forward. In other words, human resource is so important that, without it, the other resources cannot be used productively for the achievements of goals. Insightful IT leaders recognize that the greatest impediments to success are related to people rather than to information, technology and systems.

The type of people, the willingness with which the employees work and the commitment the employees’ exhibit towards the organization determine the competitive edge of an organization in the market. The firm may have the best of resources at its head quarters, but these resources cannot be utilized effectively without using human power.
I.3. IMPORTANCE OF HUMAN RESOURCE MANAGEMENT

Human Resource Management (HRM) is the strategic and coherent approach to the management of an organization’s most valued assets—the people working there who individually and collectively contribute to the achievement of the objectives of the business. HRM involves all management decisions and practices that directly affect people, or human resources who work for organizations. HRM means procuring the right people, developing their resources, utilizing, maintaining and compensating their services, performance management, career growth, organizational development, safety, wellness, benefits, employee motivation, effective communication, administration and training in tune with the job and organisational requirement. Thus HRM is viewed as an all embracing term describing a number of distinctive approaches to people management in organisations. Gerald et.al (1998)\(^5\) defines HRM “as the science and practice that deals with the nature of the employment, relationship and all of the decisions, actions and issues that relate to that relationship. In practice, it involves an organisation’s acquisition, development and utilization of employees as well as the employee’s relationship to an organisation and its performance”.

There is a long history of attempts to achieve an understanding of human behaviour in the work place, since human beings are unique in character and their behaviour is complex in nature. They supply their work, intelligence, talent, skill, creativity and drive the organisation towards the attainment of its goal.

Throughout the twentieth century and earlier, practitioners and academics had developed various theory and practices to explain and influence human behaviour at work. Human resource management has absorbed ideas and techniques from a wide
range of these theory and practical tools. In effect, HRM is a synthesis of themes and concepts drawn from a long history of work, more recent management theory and social science research.

I.3.1. HRM Philosophy and Practices

According to Tom Peters and Waterman (1989), there are two important philosophies or principles which govern HRM practices. They are (i) Psychological Contract and (ii) the Concept of Mutuality.

I.3.2. Psychological Contract

To elicit maximum commitment from the employees, the employer has a duty to provide the employee challenging jobs. The employer has to design the job to suit the genius of each employee.

I.3.3. Concept of Mutuality

The presumption according to this concept is that there is a permanent conflict in the industrial relations in organizations. Concept of Mutuality states that there is a complete consensus of interest between the employer and the employee within the organisation. It means the interests of both the employer and the employee are one and the same. In such a situation there is no or little scope for conflict in the organisation.

HRM practices in organizations are subjective and transitory. What is best for one company may not be ideal for another. What was ideal last month may not be best for today. The concept of ‘best’ or ‘ideal’ is highly subjective and non specific. Best HRM practice is not a set of discrete actions, but rather a cohesive and holistic approach to organizational management. The role of HRM is changing as fast as
technology and in tune with the changes taking place in the global market place. The challenge of HR managers is to keep up to date with the latest HR innovations, technological and legal changes that are taking place globally. Thus, there is a need to know the current HR challenges and how effectively to manage them in the workplace. Employee motivation, commitment and retention issues are emerging as the most critical workforce management challenges of the immediate future, driven by employee loyalty concerns, corporate restructuring efforts and tight competition for key talent. For many firms, “surprise” employee departures can have a significant effect on the execution of business plans and may eventually cause a parallel decline in productivity. Therefore, a crucial issue for most of the companies is to attract and retain people with the skills necessary to do the work. In this context, it would be appropriate to refer the study conducted by Rondeau and Wager (2001) in which they focused on the ability of ‘certain progressive’ or ‘high performance’ human resource management practices to enhance organisational effectiveness, noting growing evidence that the impact of various HRM practices on performance is contingent upon a number of contextual factors, such as procurement and selection, training and development, retention, rewards, motivation, and working conditions. Let us examine each of the above factors briefly.

I.3.4. Procurement

Procurement of personnel to man the organisation is the first operative function of Human Resources Management. This function involves three important steps. (Tripathi.P.C 1999)

1. Determining the kind or quality of personnel needed
2. Determination of the quantity of personnel needed and
3. Recruitment & Selection.
A winning HRM strategy of the company will correctly identify staffing needs and staff strategically. It is not mere filling of positions. In fact, it is hiring “the right people at the right place at the right time.

Talent scarcity is the biggest problem faced by organisations across the world and across sectors. According to NASSCOM (2007) India is set to face a talent crunch of half a million people in IT sector in the next few years. Software and Computer Services industry has experienced explosive growth in recent years. Recruitment is an ongoing process because companies are growing at a fast rate through diversification, mergers and acquisitions. Because of extreme competition in a globalised world, organisations need to have a very efficient and effective recruitment process which saves times, and in turn results in reducing the cost of recruitment process. Methods of recruitment process like Web Recruitment, Applicant tracking system and Recruitment Process Outsourcing (RAO) are being used extensively by IT companies to cut down the cost and time involved.

I.3.5. Effective Training and Development Programme- Underlying Principles

Human Resource Development with proper training to the work force is required to meet the challenges in future and to win the global competitive advantage. Organisations are spending huge amounts of money on imparting training to its employees. It is very important to evaluate the efficiency of the training programme conducted so far and to find out whether the employees are able to implement the skills that they learned in the training and development process.

Any training programme in order to be effective must be well planned and should have precise goals and objectives (Smitha Das, 2008) as stated below.
• Training is to be an on going process
• To enlighten the participants more about their organisation, its aspirations, challenges and the environment in which it operates.
• To make the human resources cognizant of the functions of different sections.
• To train them to be aware of the significance of communication and enthusiasm in their day to day work as a tool for better organizational climate and morale.
• To see that once they go back after attending the training, they should feel that they belong to the organisation.
• To ensure that the participants would share their information gained from training with their co-workers.
• To develop friendship, team-ship and trustee-ship among trainees.
• To enhance technical, managerial, supervisory and human competencies.
• To change attitudes and to ensure a value based and self sustained culture in building the organisation.

1.3.6. Retention: Top Concern of H.R Professionals

As already stated, employees are an integral part of an organization especially in the Information Technology sector. More talented and skilled employees are working in this sector and hence companies are generating huge profits. Loss of an employee affects the company’s productivity and also increases the expenses for recruiting a new employee. So it becomes a highly challenging job for HR personnel’s to retain the best employees in the organization. Employee retention is one of the primary measures of the health of the organization.

According to NASSCOM (2007) talent acquisition and employee retention are the pressing issues in software industry. In fact both are inter related and interconnected. In a competitive labour market, attracting and retaining top talent
requires a thoroughly thought out hiring strategy that is tailored to the individual characteristics and needs of the organisation. Once an employer has hired a quality employee, retaining him is the biggest concern regarding the ‘bottom line profitability’ of their organisation. (Sreenivas Rao 2008)\textsuperscript{12}. Persis Mathias (2001)\textsuperscript{13}, states that it is hard work engaging Indian software talent by the software industry, which is a spawning ground for IT professionals. It is also a stalking ground for companies on the hunt for prized talent which means that companies here must work extra hard to hold on to their key people. Retention of employees then is a major task before HR personnel managers. AMR (Attract, Motivate, Retain) is a big concern in IT industry.

I.3.7. Why do Employees Leave the Organization?

In the best of circumstances, employees would love their jobs, like their co-workers, work hard for their employers, get paid well for their work, have pie chances for advancement, and flexible schedules so they could attend to personal or family needs when necessary. But, in reality, what is described above may not happen in an organization always. Employees do leave, either because they want more money, hate the working conditions, hate their supervisors, co-workers, want a change, or because of their own personal perceptions.

Employees resign for many different reasons. Sometimes it is the attraction of a new job which ‘pulls’ them. On other occasions, they are ‘pushed’ due to dissatisfaction in their present jobs and therefore intend to seek alternative employment. Sometimes it is a mixture of both pulls and push factors. There could be other reasons for leaving which are entirely explained by domestic circumstances
outside the control of the employer, as is the case, when someone relocates with their spouse or partner.

Recent researches strongly suggest that push factors are a great deal more significant in most resignations. It is rare for people to leave jobs in which they are happy, even when offered higher pay elsewhere. Most of the employees have a preference for stability.

It is important to appreciate that the reasons people give for resignations are frequently untrue or only partially true. The use of exit interviews is widespread, yet they are notoriously unreliable, particularly when conducted by someone who may later be asked to write a reference for the departing employee. They are reluctant to voice criticism of their managers, colleagues of the organization generally and usually prefer to give some less contentious reasons for their departure.

The traditional theory of how employees make the decision to leave a job focuses on two key variables:

1. The employees level of satisfaction/dissatisfaction with their current employment, and

2. The perceived desirability and ease of finding new employment.

In fact, this model of turnover is based on the premise that active consideration to leave a job is necessitated by low levels of both job satisfaction and commitment to the organization and this model assumes that turnover decisions follow a rational and fairly deliberate, pre determined path.

The main reasons for leaving can be categorized into five primary ‘themes’. 
Career opportunities, including:

- Perceived opportunity for advancement
- Presence and/or clarify of development plan

Enjoyment of the work, including:

- How well work utilizes skills.
- “Fit” with job.
- Work/Life balance.

Corporate Leadership, including:

- Clarity and strength of vision and mission.
- Management style.
- Overall perceptions of leadership.
- Level of respect and support received.

Availability of training, including:

- Opportunities to learn new skills/develop new talents.
- Corporate commitment to training and development.
- Keeping up with latest technology.

Compensation rewards, including:

- Base/Variable pay
- Benefits
- Recognitions and contributions
I.3.8. How to Reduce Attrition Rate

Following are some of the generally accepted methods adopted to reduce attrition rates in software companies

a. Hire the right individuals who are truly fit to the job
b. Employees should not only be selected on the basis of communication skills and educational qualification alone but also their roles, job description and responsibility with in the organisation.
c. Participative decision making style
d. Sharing of Knowledge with others
e. Shorten the feedback loop
f. A fair pay package and performance linked incentives.
g. Work-life balance
h. Organisational Culture
i. Exit interview
j. Motivational Training

k. Multi tasking
l. Referrals
m. No favouritism

I.3.9. Motivation

“Motivation represents an unsatisfied need which creates a state of tension or dis-equilibrium, causing the individual to move in a goal directed pattern towards restoring a state of equilibrium, by satisfying the need”.

Motivated people are in constant state of tension. This tension is relieved by drives towards an activity and outcome that is meant to reduce or relieve such tension.
The greater the tension, the more activity will be needed to bring about relief and hence higher the motivation.

1.3.10. Sources of Motivation

Experts in the organizational behavior field have a divided opinion as to whether workers are motivated by factors in the external environment such as rewards or fear or whether motivation is self generated without the application of external factors. It is quite well understood that under the same set of external factors, all workers are not equally motivated. Some of these motivational sources are:

1.3.11. Positive Motivation:

Positive motivation involves proper recognition of employee efforts and appreciation of employee contribution towards the organizational goal achievement. Such motivations improve the standards of performance, lead to good team spirit and pride, a sense of co-operation and a feeling of belonging and happiness. Some of the positive motivators are:

- Praise and credit for work done.
- A sincere interest in the welfare of subordinates.
- Delegation of authority and responsibility to subordinates.
- Participation of subordinates in the decision making processes.

1.3.12. Negative or Fear Motivation:

This motivation is based upon the use of force, power, fear and threats. The fear of punishment or unfavorable consequences affect the behavioral changes. While the fear of punishment and actual punishment has resulted in controlling individual misbehavior and has contributed towards positive performance in many other situations such as disciplining a child or handling a riot, it is not recommended or considered as a viable alternative in the current business and industrial environment.
McConnell (1998) points out that motivation is a soft factor. It is difficult to quantify and it often takes a back seat to other factors that might be less important but are easier to measure.

1.3.13. **Motivators in the Software Sector**

According to Sarah Beecham et-al (2007) the most frequently cited motivators in the software sector are “the need to identify with the task” such as having clear goals, a personal interest, understanding the purpose of a task, how it fits in with the whole, having job satisfaction and working on an identifiable piece of quality work. Having a clear career path and a variety of tasks is also found motivating the software engineers.

1.3.14. **Quality of Work Life (QWL)**

Quality of work life includes all services, amenities and facilities provided by the employer in or in the vicinity of the undertaking, in order to enable the employees to perform their work in healthy and congenial surroundings and provide them with amenities conducive to good health and high morale. It encompasses all matters affecting the health, safety, comfort and general welfare of the employees and includes provision for education, recreation, thrift schemes, housing, medical schemes etc. This includes facilities for rest and recreation, co-operative societies, day nurseries and crèches, holidays with pay, social insurance measures, sickness and maternity benefit schemes, provident funds and gratuities. In short, QWL refers to the level of satisfaction, motivation, involvement and commitment individuals experience with respect to their line at work.
1.3.15. Ideal Human Resource Management Practices

Barbara Mitchell and Sharon Armstrong (2008) present the following 10 best HR practices that help organisations to attract, hire and retain talents in these turbulent economic times. They are

1. Creating a safe, healthy and happy work place.
2. Sharing of Information on important business matters.
3. Performance linked bonus.
4. 360 Degree performance management feedback system
5. A fair evaluation system
6. Knowledge sharing
7. Highlight performers
8. Open house discussions
9. Reward Ceremonies
10. Delight employees with unexpected.

1.4. SCOPE AND RELEVENCE OF THE STUDY

Information system has become a wide and diverse discipline and Information Technology has moved from back office, closed systems to end-user controlled open system. The competitive software industry has become an increasingly important part of advanced industrial economies. According to NASSCOM (2007) India is set to face a talent crunch of half a million IT professionals in the next few years.

Despite the global economic slow down of 2007-2008, the Indian IT software and services industry is maintaining a steady phase of growth. Software development activity is not confined to a few cities in India. Infact, software development centers
such as Bangalore, Hyderabad, Mumbai, Pune, Chennai, Delhi-Noida, Gurgaon, Vadodara, Bhubaneswar, Ahmedabad, Goa, Chandigarh and Thiruvananthapuram are also developing quickly.

Even though the state of Kerala has got certain distinctive advantages vis-à-vis other states to become as the most favourable location in India for IT and ITES industries to flourish, the performance of Kerala has not been spectacular compared to that of other south Indian states. Kerala contributes only a nominal share in the overall software export of India indicating the extremely low level of IT activities in the state. The IT activities of the state are mainly confined at Technopark in Thiruvananthapuram and Info Park at Kochi (Kerala State IT Mission 2007).

According to NASSCOM (2007), the biggest hurdle to the growth of the IT industry is talent scarcity. Successful organisations in the 21st century will be those that attract, retain, develop and reward individuals who have skills and knowledge to creatively approach customers, stakeholders and take advantage of the opportunities that offer in a globalized market. An organisation can reach its maximum potential, if each employee develops and achieve goals that support personal and organisational success.

The practice of HR in a knowledge driven era has assumed greater significance since the companies are looking for knowledge workers today and therefore, management of people has become extremely important.

In a tight labour market, attracting and retaining top talent requires a thoroughly thought out strategy that is tailored to the individual characteristics and needs of the company. The main goal is to hire the right type of people at the right place at the right time.
Beyond recruiting and retention activity however, employees in particular see work-life balance as a key factor when deciding to join and or stay with an organisation.

Another major problem is high attrition rates and growth aspirations of the work force. High attrition represents significant costs to most of the organisations. Managing attrition is not just a simple thing in software companies. It is not only a part of cost of doing business alone, but it is the route to their survival itself. Therefore, it is an area where a well thought out HRM practices have to be in place in the software companies to take care of the complex HR issues.

If HRM policy is to contribute to the organizations bottom line areas mentioned above should be consistent, integrated and strategically focused. As such the researcher observes that no such integrated and comprehensive study on Human Resource Management practices in software industry in Kerala has been made earlier.

The IT industry is particularly ideal for Kerala in terms of its potential to generate large scale employment opportunities with a little pressure on land, environment and other resources IT is also of particular significance due to our strength in human resources, advanced level of literacy, education and health care, an excellent communication net work and three International Airports viz. Thiruvananthapuram, Kochi and Calicut (IT Policy 2007 of Govt. of Kerala) 20.

It is in these circumstances, that the researcher has decided to undertake a comprehensive study on the HRM practices in software industry in Kerala by conducting a study among select software firms in Technopark and also among firms in outside Technopark.. The focus of the study is to understand the major factors which influence people to opt for a career in software companies, to understand the prevalent working conditions in motivating and retaining the employees in the
organisation, to examine whether job security is an important concern among the employees of software companies and to suggest measures to improve the present HRM practices followed by the software companies in Kerala. It is hoped that the findings of the study would be helpful to the different stake holders in the industry, viz., employees, planners, policy makers and administrators.

1.5. STATEMENT OF THE RESEARCH PROBLEM

The study is an attempt to examine the HRM practices in software industry in Kerala. This implies an inquiry as to how the management ensures the availability of the right kind of people in right quantum at the right place, at the right time, doing the right things for the achievement of the organizational objectives. This study also examines, whether the present working conditions in the software companies are suitable to attract the most talented people to opt for a career in the software industry. The study also reviews the service conditions, reward, morale and job satisfaction of the employees.

1.6. OBJECTIVES OF THE STUDY

1. To understand about the major factors which influence people to work in software companies.

2. To understand the influence of working conditions in motivating and retaining employees in the organization.

3. To examine whether job security is an important concern among employees of software companies.
4. To suggest measures to improve the HRM practices followed by the software companies in Kerala based on the study.

1.7. HYPOTHESES

Based on the above objectives the following hypotheses have been framed and tested.

**H1:** There is no significant difference between Technopark employees and outside Technopark employees in pay and performance scores.

**H2:** There is no significant difference in the retention problems between Technopark employees and outside Technopark employees.

**H3:** There is no significant difference of competence scores between the Technopark and outside Technopark employees.

**H4:** Hypothesis: There is no significance difference of Grievance Redressal scores between the Technopark and outside Technopark employees.

**H5:** There is no significant difference of working condition scores between Technopark employees and outside Technopark employees.

**H6:** There is no significant difference of job security scores between Technopark employees and outside Technopark employees.

**H7:** There is no significant difference of freedom of expression between Technopark employees and outside Technopark employees.

**H8:** There is no significant difference in job motivation level between Technopark employees and outside Technopark employees.
1.8 RESEARCH METHODOLOGY

The study is designed as a descriptive one based on primary and secondary data.

1.8.1. AREA OF THE STUDY

Thiruvananthapuram, the capital of Kerala is the largest and most populous city in Kerala and considered to be the IT hub of the state with over 80% of the state's software exports.

The city houses many central and state government offices, organizations and companies. Apart from being the political nerve centre of Kerala, it is also a major academic hub and is home to several educational institutions including the University of Kerala, and to many science and technology institutions.

The economy of Thiruvananthapuram city, until recently, was based on the tertiary sector with about 60% of the workforce being employed as government servants. But, of late, the economic status of the city has shown remarkable improvement with the contributions from sizeable number of professionals in the fields of IT, and Medical/Bio-Technology.

Since the establishment of Technopark in 1995, Thiruvananthapuram has steadily grown into a competitive IT centre in the country. The city is rated as one of the best 2nd tier metros with IT/ITES infrastructure..

Technopark in Thiruvananthapuram is the hub of the IT activities in Kerala. It is India's first IT park and is widely acclaimed as one of the most advanced and promising destinations for IT industries. Technopark, owned by the state government has been conceived as an integrated IT environment with all necessary basic and
enhanced infrastructure required by the industry. Technopark has around 104 companies currently, employing over 19,500 professionals. There are 32 software companies functioning in Thiruvananthapuram Corporation Area outside Technopark. In order to have a meaningful understanding of the HRM practices in the software industries in Kerala, a representative sample of software companies in Technopark and companies from outside Technopark in Thiruvananthapuram Corporation Area have been selected by the researcher for the present study.

1.8.2 SAMPLE DESIGN

The universe of the study is limited to the software companies located in Technopark and outside Technopark in Thiruvananthapuram Corporation Area. There are 104 software companies in Technopark, 32 software companies outside Technopark in Thiruvananthapuram Corporation area. (The details of these companies are given in Annexure II.)

Altogether, 18 software companies have been selected for the study. Out of this, 12 companies are from Technopark and 6 companies are from outside Technopark in Thiruvananthapuram Corporation Area. The criteria adopted to select the 18 software companies (12 out of 104 companies situated in Technopark and 6 out of 32 software companies outside Technopark. Thiruvananthapuram Corporation area) are on the basis of 2 parameters, viz., (i) the number of employees and (ii) minimum amount of capital investment in these companies. Thus, companies having an employee strength of 50 and above and with a capital investment, not less than Rs.25 lakhs (the amount invested by the company towards the cost of computers, peripherals, networks, configuration, broadband connectivity etc.) alone
have been selected for the study. Using the above criteria, it was found that there existed 60 companies located inside Technopark and 15 companies outside Technopark, in Thiruvananthapuram Corporation Area satisfying the above criteria. A simple random technique was adopted to select 12 companies from Technopark and 6 companies from outside Technoapark for the study. (The details of the 18 select companies are given in Annexure II.)

As a first step towards selection of sample respondents from the different categories of employees, the details regarding the different categories of employees in the select companies were collected. Based on this data, the respondents were selected using simple random method. Sample respondents consisted of 270 employees, ie., 180 employees from Techno Park (15 each from 12 companies) and 90 employees (15 each from 6 companies) from outside Techno. Care was taken to ensure that the select respondents from the companies represented all the three categories of employees, viz; Senior Managers, Functional level managers and Junior Management Team. The following Table shows the distribution of respondents thus selected for the study.

<table>
<thead>
<tr>
<th>Categories of Employees</th>
<th>Techno Park</th>
<th>Outside Techno Park in Trivandrum Corporation Area</th>
<th>Total Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior Management Team</td>
<td>96</td>
<td>49</td>
<td>145</td>
</tr>
<tr>
<td>Functional Managers</td>
<td>59</td>
<td>30</td>
<td>89</td>
</tr>
<tr>
<td>Senior Managers</td>
<td>25</td>
<td>11</td>
<td>36</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>180</strong></td>
<td><strong>90</strong></td>
<td><strong>270</strong></td>
</tr>
</tbody>
</table>
1.8.3. SOURCES OF DATA

Data have been collected for the study from primary secondary and sources. A pilot study was conducted among 10 respondents to check the feasibility of the study and also to test the appropriateness of the questions included in the questionnaire. Based on the inputs from pilot study, minor modifications were made to some of the questions included in the questionnaire. A structured questionnaire has been used to collect primary data from the sample respondents. The questionnaire was designed in such a way, that it consisted of questions (Q.1-35) related to individual based and firm based factors and also consisted of statements (Q.36-67) related to HR practices in the company. Each statement could be answered using a five point scale method. Few open ended questions were also there at the concluding part of the questionnaire to understand the perception and expectations of each employee vis-vis his/her organization.

Secondary data have been collected from internet, journals, news papers, magazines, books etc. Accounting Records of the companies of the sample group, consolidated annual reports prepared at the administrative office of Technopark, Economic Review Reports of State Planning Board, website of the companies, Reports of Government Agencies and Professional Associations have also been used by the researcher for collecting secondary data.

1.8.4. TOOLS OF DATA ANALYSIS

Both mathematical and statistical tools have been used for data analysis. Descriptive and inferential statistical tools were used to obtain different measures. Statistical tests like Chi-Square test, T test F test, ANOVA have been used wherever
found appropriate. Mult Variate Analysis and Factor Analysis have been done in appropriate contexts in the study.

1.9. LIMITATIONS OF THE STUDY

This study is mainly based on survey method of research. Therefore, the limitations of survey method are expected to influence the outcome of the research.

The study is confined to the software companies in Techno Park and outside Techno Park in Thiruvananthapuram Corporation Area only. Therefore, not all the findings of the present study could be generalized since the research variables and determining factors being investigated in the present study could have different dimensions in different context and settings

One of the main limitations of the study was the unwillingness of the companies to part with information which could not be classified as strategic. Also, on few occasions, while interviewing the respondent employees, the researcher had to confront with certain difficulties in obtaining frank responses from them due to their inhibition and lack of freedom. The analysis and interpretations made in the study are based on data collected in this manner. However efforts have been taken by the researcher to cross check the responses and to make the conclusions as meaningful and rational as possible.

1.10. CHAPTER SCHEME

The thesis is organized and presented in five chapters.

Chapter I contains introduction to the software industry in India and Kerala, importance of HRM functions and practices in software industry, scope and
relevance of the study, statement of research problem, objectives of the study, research methodology, hypothesis framed and limitations of the study.

Chapter II deals with review of literature, presenting the relevant research works done in the area of Human Resource Management Practices in Software Industries.

Chapter III illustrates an overview of the global software industries, position of India and Kerala and the opportunities and challenges faced by the industry.

Chapter IV deals with the analysis and interpretations of survey data.

Chapter V summarises the study, lists the findings and offers suggestions.
REFERENCES


