CHAPTER 1

INTRODUCTION AND RESEARCH METHODOLOGY
# CHAPTER CONTENTS

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the Sub-Title</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>PART 1 – INTRODUCTION TO THE STUDY</strong></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>INTRODUCTION TO EMPLOYEE WELFARE</td>
<td>1</td>
</tr>
<tr>
<td>1.2</td>
<td>CONCEPT OF EMPLOYEE WELFARE</td>
<td>3</td>
</tr>
<tr>
<td>1.3</td>
<td>MEANING OF EMPLOYEE, EMPLOYER AND EMPLOYEE WELFARE</td>
<td>4</td>
</tr>
<tr>
<td>1.4</td>
<td>DEFINITIONS OF EMPLOYEE WELFARE</td>
<td>5</td>
</tr>
<tr>
<td>1.5</td>
<td>SCOPE OF EMPLOYEE WELFARE</td>
<td>7</td>
</tr>
<tr>
<td>1.6</td>
<td>PURPOSE OF EMPLOYEE WELFARE AT WORK</td>
<td>11</td>
</tr>
<tr>
<td>1.7</td>
<td>APPROACHES TO EMPLOYEE WELFARE:</td>
<td>12</td>
</tr>
<tr>
<td>1.8</td>
<td>LIMITATIONS OF EMPLOYEE WELFARE PROGRAMMES</td>
<td>13</td>
</tr>
<tr>
<td>1.9</td>
<td>PRINCIPLES OF EMPLOYEE WELFARE PROGRAMMES</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td><strong>PART 2 – RESEARCH METHODOLOGY</strong></td>
<td></td>
</tr>
<tr>
<td>1.10</td>
<td>OBJECTIVES OF THE STUDY</td>
<td>15</td>
</tr>
<tr>
<td>1.11</td>
<td>LOCATION OF THE RESEARCH STUDY</td>
<td>16</td>
</tr>
<tr>
<td>1.12</td>
<td>SIGNIFICANCE OF THE STUDY</td>
<td>18</td>
</tr>
<tr>
<td>1.13</td>
<td>NEED FOR THE STUDY</td>
<td>19</td>
</tr>
<tr>
<td>1.14</td>
<td>STATEMENT OF THE PROBLEM</td>
<td>20</td>
</tr>
<tr>
<td>1.15</td>
<td>SCOPE OF THE STUDY</td>
<td>22</td>
</tr>
<tr>
<td>1.16</td>
<td>LIMITATIONS OF THE STUDY</td>
<td>23</td>
</tr>
<tr>
<td>1.17</td>
<td>RESEARCH DESIGN</td>
<td>24</td>
</tr>
<tr>
<td>1.18</td>
<td>LIST OF HYPOTHESIS CONSIDERED IN THE STUDY</td>
<td>25</td>
</tr>
<tr>
<td>1.19</td>
<td>SAMPLING</td>
<td>30</td>
</tr>
<tr>
<td>1.20</td>
<td>DATA COLLECTION</td>
<td>36</td>
</tr>
<tr>
<td>1.21</td>
<td>STATISTICAL TOOLS USED</td>
<td>39</td>
</tr>
<tr>
<td>1.22</td>
<td>DATA ANALYSIS</td>
<td>43</td>
</tr>
</tbody>
</table>
This chapter is divided into two parts. Part 1 being the General Introduction to the concept of Employee Welfare which elucidates the nuances of Employee Welfare Measures that form the core subject of this research work and Part 2 covers the Research Methodology followed for undertaking this research work.

PART 1 – GENERAL INTRODUCTION TO THE STUDY

1.1 INTRODUCTION TO EMPLOYEE WELFARE

Human Resource is the most dynamic resource of any organisation in any industry and in any part of the world because of the versatility of the capabilities possessed by this resource. Any and all the technological advancements can replace one or more of the capabilities of this resource but not all. The innovative technological advancements in the fields of robotics, automation etc. may all seem to be replacing Human resource elements in a large scale from the organisations in different industries. Gene Zaino (2017) in his study on the impact of automation on the workforce has mentioned that the workplace automation largely redefines rather than eliminates jobs. Though it is true that there might be a paradigm shift in Employee competencies, training patterns etc. it is not in near future for emerging countries like India to have drastic reduction in human resource numbers particularly in industries like Cement and Steel which is majorly labour oriented. The studies on impact of Automation on employment opportunities in Global economies has revealed that the emerging economies with younger populations like India is projected to have the continued growth of the working age population, which could support maintaining current GDP per capita. However, given their high growth aspirations, automation plus additional productivity raising measures will be necessary to sustain their economic development. (McKinsey 2017)

The success of organizations in this era of globalization hugely depends on the efforts of human resources. Human resource is considered as the most important and valuable assets of any organization. The success of any organization in this
globalization atmosphere largely depends upon the efforts of its workforce. (Beach D.S.1975)³.

L.F Urwick (1994)⁴, well defined human resources in the following words “business houses are made or broken in the long run not by markets or capital, patents or equipment but by men.” All the other resources like money, machinery and materials are coupled with human efforts to furnish the end product. Human resource is the most versatile resource and the best thing of human resource is that it is the only resource which is non-depreciable in long run.

In this competitive world, it is necessary for every industry to preserve its mark in the economy. This requires the industries to put in continuous efforts to stay update in every aspect. Since human resource is the most important resource, the industries need to cater prime attention towards its employees’ welfare. Effective welfare provisions need to be designed keeping in view both inside and outside aspects of the employees. Satisfied employees promote better success results and henceforth many Government bodies have well appreciated the efforts put in for the welfare of employees.

India is human resource rich country. However, human resource can yield best results only when the human efforts are positively channelized and effectively developed. A well-motivated human force can coordinate all the other resources efficiently which would thereby result in organizational success and growth.

Organizations around the world are remodeling themselves as they respond to the challenges presented by the global economy (Apple While, Philip B. 1965)⁵. In business environment, the methods and structure can be very closely and easily duplicated but the key elements that makes or breaks the businesses is its human resource. Human resource is the unique resource that cannot be duplicated.
Many factors like quality of workforce, their commitment, enthusiasm, job satisfaction and work culture influences the productivity of the organization, service quality, goodwill and the company’s human resource survival.

Human resource management is preceded by personnel management and traditional management of industrial relations is not sufficient to unleash the hugely untapped human potential in the organization (Carvel Fred J. 1973). With the advancements in management, the personnel are now treated as assets. The organizations in order to motivate the employees to put in their best efforts, are striving hard to satisfy the employees with their jobs.

India, in spite of being one the human resource richest country, the companies in India face the problems related to human resource procurement, control and maintenance.

1.2 CONCEPT OF EMPLOYEE WELFARE
Gone are the days when the term “labour welfare” was looked upon as a charity, or as a barren liability. These days it is been viewed as a wise investment. When employees are extended welfare incentives, it improves their sense of duty and serves as a motivation to give out their best performance. This results in smooth functioning, better productivity and effective industrial progress. Vijay Asdhir (1994) in his study explored that the term “Labour welfare” came in vogue in society out of the need to address the sufferings of the working class. The De-humanizing conditions posed severe threat to the society on the whole. Hence, as a humanitarian approach to tackle labourers’ problems, labour welfare concept was implemented. Later, this concept was developed into a utilitarian philosophy. Many labourers began to take interest into it. (Kingsley Martin 1953).

The aim of “labour welfare” was to remove the “haves” and “have nots” gap. The industrial revolution resulted in downfall of workers’ socio-economic conditions. The workers were subjected to hazardous working conditions, treated like slaves and exploited badly. The plight of the suffering workers’ urged the people to establish the
welfare state which provides them job, and guaranteed social establishing welfare state. (Vaid K.N. 1970)\(^9\)

The basic idea behind the welfare practices introduction was to improve the standard of living of workers. This was done by way of extending workers facilities like improved water supply provision, public health, sanitation, disease prevention, provision of medical facilities, educational facilities, housing, recreation, transport, nutrition etc. (Mehta P 1985)\(^{10}\)

Today, the concept of labour welfare has widened its scope largely and it covers all the physical, emotional, mental and moral well-being altogether. Welfare of labourers can now be approached from many angles of well-being, happiness, health and prosperity. Thus, it is now a total concept of overall wellbeing of labourer’s. Puneicar S.D & Deocflier S.B & Saraswathi Sankaran (1998)\(^{11}\) has explained that, The welfare concept in social terms is viewed as the welfare of worker, his family and community. These three elements are interlinked each serving and support the other element. These all goes together hand in hand.

Welfare concept is very vast and dynamic. It is subjected to change in accordance with time, space. It is a relative concept and it varies with differences in country, region, industry, lifestyle, level of education, scientific advancement, degree of industrialization, people’s socio-economic standard of development. (Sarma, A.M.1991)\(^{12}\)

1.3 MEANING OF EMPLOYEE, EMPLOYER AND EMPLOYEE WELFARE

Employee
An employee is a person who renders his services to his employer in realization of wages for the services extended. This relationship of employee and employer is a legal relationship. The employee is also entitled to receive unemployment pay
benefits as wages. Employee is not a board member, or functions as a superintendent. He is not even employed in a confidential capacity in matters relating to Personnel or labour relations.

**Employer**

An employer appoints workers or employees for getting the work done. Business involves lot of activities which cannot be handle by a sole individual. Hence, it requires to delegate the work to others for smooth functioning and expansion. Therefore, employees are appointed. Although employee people is tough but it can be done well when the employer is well aware of his responsibilities, legal obligations and rights. The employer is super checked by many authorities who ensures that the employer creates a healthy working environment in the organization.

**Employee Welfare**

(Nuwara Elija, Ceylon) at the Asian Regional Conference of the [International Labour Organization] ILO explained Employee (Labour) welfare as a term which is understood to include such services, facilities and amenities as may be established in or in the vicinity of undertakings to enable the persons employed in them to perform their work in healthy, congenial surroundings and to provide them with amenities conducive to good health and high morale. Labour Welfare includes all those activities directed to improve employees’ standard of living along with providing them mandatory wages for work done. Welfare provision can be either in monetary or in non-monetary form also. Employee welfare comprises of characteristics of creating a healthy working environment for workers, insuring them against diseases, accidents, unemployment aid for workers and their families.

**Managerial Employees**

In larger organizations, management is often broken down into three levels -- upper management, middle management and lower management. Upper management includes top executives who are highest on the management hierarchy. Middle management includes department managers and division managers, who are the communication link between upper and lower management. Lower management
includes first-line managers and supervisors, who are on the bottom of the management hierarchy. In smaller organizations, there is often only one level of management between the non-managerial employees and the organization's leaders. Smaller organizations also generally have fewer managers than larger organizations.

Non-Managerial Employees
Non-managerial employees are placed into categories according to their job functions. In an industrial environment, non-managerial job titles may range from fitters, Machinists, Welders, Electrical Technicians, Safety Patrol men, Security men etc. In an office environment, non-managerial job titles may range from administrative assistant to payroll specialist to computer technician.

1.4 DEFINITIONS OF EMPLOYEE WELFARE
Although there are many definitions of the term “welfare” but broadly speaking, measures and activities undertaken by the state, employers and associations of the workers for the improvement of the workers’ standard of life and for the promotion of their economic and social well-being are labelled as welfare work.

As per the Oxford Dictionary definition labour welfare is “efforts to make life worth living for worker”.

The voluntary efforts of the employer to establish, within the existing industrial system, working and sometimes living and cultural conditions of his employees, beyond what is required by law, the customs of the country and the conditions of the market.

The connotation of labour welfare must necessarily is flexible, bearing a slightly different interpretation from one country to another, according to the different social customs, the degree of industrialization and the educational development of the workers.
Labour welfare is somewhat subjective and difficult, proceeded to include under labour welfare activities anything done for the intellectual, physical, moral and economic betterment of the workers, whether by employers, by Government or by other agencies, over and above what is laid down by law or what is normally expected as part of the contractual benefits for which the workers may have bargained. Labour welfare can be noted as anything done for the comfort and improvement of intellectual and social, of the employees over and above the wages paid which is not a necessity of the industry. (Arthur James Todd 1933)

1.5 SCOPE OF EMPLOYEE WELFARE

All efforts which employers make for the benefit of their employees over and above the minimum standards of working conditions fixed by the Factories Act and over and above the provisions of social legislation providing against accident, old age, unemployment and sickness. (Joshi N.M 1927)

Labour welfare is housing, medical, education, nutrition including provision of canteen facilities for rest and recreation, co-operative societies, crèches, provision of sanitary accommodation, sickness and maternity benefit schemes, provident funds, gratuities and pensions etc. The term ‘welfare’ is thus, very flexible and as well as comprehensive. Local circumstances including managerial idiosyncrasy and fashion determine to a certain extent the welfare installation in a given industry or plant, it includes, in general, some form of profit-sharing, pension, sickness benefits, vacations with pay, lunch rooms, baths, wash rooms, gymnasium, club rooms, rest rooms, day nurseries, kindergartens, nursing, dental and dispensary service, play grounds, gardens, camps, libraries, dancing, music, educational classes, dramatics, lectures, movies, savings’ banks, model housing at low rents or purchase prices, plant journals. (Kirkaldy, H.S 1947)

Work for improving the health, safety, general well-being and the industrial efficiency of the workers beyond the minimum standards laid down by the Factories Act and other labour legislation. (Bhagoliwal T.N 1991)
Such services, facilities and amenities as adequate canteens, rest and recreation facilities, arrangements for travel to and from the work and for the accommodation of workers employed at a distance from their houses and such other services, amenities and facilities as contributed to improve the conditions under which workers are employed.

The voluntary efforts of the employer to improve the living and working conditions of his employees, the underlying assumption, of course, being that the first essentials to the welfare of the employees are steady work, a fair wage and reasonable hours of labour. That the employer has a further obligation and should not attempt to substitute welfare work for better wages and shorter hours is clear from its added pronouncement that the spirit of the age has thrown upon the employers, duties involving a proper regard for the comfort, health, safety and well-being of the employees.

The employees’ productivity depends quite as much upon their environment and lies in the fourteen hours away from work, as in the ten hours in the work, many of the programmes reach beyond the factory into the homes of employees that include wives and children as such, the labour welfare aims to serve to achieve humanitarian, economic and civic objectives. (Wittee, Edwin, E 1957)\textsuperscript{19}

Labour welfare measures do not only consist of monetary incentives but also include measures for human development. (Galbraith J, V 1959)\textsuperscript{20}.

Welfare is fundamentally an attitude of mind on the part of management, influencing the method by which management activities are undertaken the emphasis obviously is on the attitude of mind. (Hopkin R.R 1955)\textsuperscript{21}

The labour welfare contributes to the economic development by molding the workers into a productive, efficient and committed labour force. (Dholakia J.L. 1961)\textsuperscript{22}
Realising the difficulties in giving a precise and generally acceptable definition of ‘labour welfare’, the National Commission on Labour pointed out in their report that the concept of ‘welfare’ is necessarily dynamic, bearing a different interpretation from country to country and from time to time, and even in the same country, according to its value system, social institution, degree of industrialization and general level of social and economic development. Even within one country, its content may be different from region to region. Labour welfare has two sides, negative and positive. On the negative side, it is associated with counter-acting of the harmful effects of large scale of industrialization on the personal, family and social life of the worker while on the positive side; it deals with the provision of opportunities for the worker and his family for a socially and personally good life. (Moorthy M.V C.Gupta Brothers, Waltair 1968)

It may be noted that not only the intra-mural but also extra-mural, statutory as well as non-statutory activities, undertaken by only of the three agencies, the employers, trade unions or the government for the physical and mental development of a worker, both as a compensation for wear and tear that he undergoes as a part of production process and also to enable him to sustain and improve upon the basic capacity of contribution to the process of production, which are all the species of the larger family encompassed by the term labour welfare.

The term ‘welfare’, “such services, facilities and amenities as adequate canteens, rest and recreation facilities, sanitary and medical facilities, arrangements for travel to and from the work and for the accommodation of workers employed at a distance from their homes and such other services, amenities and facilities, including social security measures, as contribute to improvement in the conditions under which workers are employed”. Real welfare is not amenities but the right atmosphere, where the worker can breathe the air of growth and development and think constructively, so as to understand the play and interplay of his subconscious instincts and conscious emotions. (Giri V. V. 1972)
The industrial workers are subject to various handicaps both in their work life and in their community life, and the removal of these handicaps is a part of the function of labour welfare. (Murthy M.V1982)\textsuperscript{25}

Any kind of voluntary service will come under the purview of labour welfare if it aims at helping the worker to work better and in more congenial surroundings and also to live better in a more meaningful manner — physically, morally, economically and intellectually. (Punekar S.D., Deodhar S.B. and Saraswati Sankaran1984)\textsuperscript{26}

Labour welfare has tremendous potentialities for fostering good industrial relations. (Memoria C.B 1985)\textsuperscript{27}

Labour welfare is an important factor of industrial relations, the extra dimension, giving satisfaction to the worker in a way which even a good wage cannot. (Arun Monappa1987)\textsuperscript{28}

The modern concept of labour welfare entails all those activities of the employers which are directed towards providing the employees with certain facilities and services in addition to wages or salaries. (Rakesh K.Chopra,1989)\textsuperscript{29}. These are not a form of employers’ good will or charity to workers, but are facilitative services to build and maintain the morale of the workers to achieve the objectives of the organisation. As such, it is not only in the interest of the employees to provide them these facilities but in the interest of the organisation to make the employees feel committed to the organisation. Hence, these are considered merely maintenance factors and not motivators, yet they are necessary for the health of the organisation since they bear close connection with the productivity of the organisation.

Labour welfare is an essential part of social welfare which, according to him, means the adjustment of the employee’s working life and family life to the community and social life around. He supported this argument on the ground that the health, happiness and efficiency of each individual connote the general well-being of all. (Ghosh B 1987)\textsuperscript{30}
All the above definitions explain us that there is no constant and accurate definition of the term “Labour welfare”. It is apparent that none is complete or comprehensive. It is difficult to draw a line of precision or demarcation in this concept. It can also lead to overlapping and ambiguity in certain areas of action.

However, the clear point is that “Labour welfare” implies welfare of labourers. It is undoubtedly related to promoting workers’ well-being. Any voluntary service which makes workers’ life better and gives them a meaningful life physically, morally, socially, intellectually and economically all comes under the heading of labour welfare.

1.6 PURPOSE OF EMPLOYEE WELFARE AT WORK

Every employee works for returns. The more they are satisfied with their returns, the more they are likely to continue. Thus the organizations need to incorporate effective welfare schemes for the betterment of their employees. Welfare measures promotes employees well-being by enhancing their physical and psychological health and keeps them satisfied with their jobs. It also reduces the incidents of social evils and ethical issues amongst the employees and brings in industrial peace. In this era of globalization, employees’ perceptions are widely impacted. The requirements and needs of employees are changing vastly each day. Welfare provisions keeps the employees satisfied with their jobs and helps in maintaining stable work force. A satisfied and stable work force is good for organizational health as they create a congenial environment and results in higher productivity.

Employee Welfare is the voluntary efforts of the employer done for the comfort and improvement of the intellectual and social life of the employees other than the wages paid which is not a necessity of the industry. The statutory schemes are those schemes that must compulsorily be provided by an organization as compliance to the laws governing employees’ health and safety. The non-statutory schemes are those schemes that are not compulsory to be provided by an organization but the employer provides them in order to improve satisfaction.
1.7 APPROACHES TO EMPLOYEE WELFARE

Kohli and Sharma (1997)\textsuperscript{31} has noted following approaches of employee welfare –

**Paternalistic Approach**

Every employee is entitled for a reasonable amount of amenities and comfort that enables him to perform well. The facilities are expected by the employees from their employer. The employer ensures that the employees get enough support and amenities as a moral duty. This approach is called as a “Paternalistic Approach”. However, this approach is now become obsolete as the employees were seen as someone of inferior category and welfare of employees was treated as charity and the employers developed the attitude like “look I have done so much for you, now you should respect me and be loyal to me.” and began to expect loyalty from employees for the efforts extended.

**Industrial Efficiency Approach**

The economic approach explains that the employer has a self-interest in providing welfare benefits to the employees. The economic approach says that the real reason is not charity or mercy behind welfare rather provision of welfare facilities helps in employee well-being which in turn results in high productivity. Even this approach is rejected as it appropriated the employers’ ulterior motive.

**Social Approach**

The third approach is a social approach. Employee welfare here is considered as a part of social welfare and not as mercy or any ulterior motive. “When the worker feels that the employer and the state are interested in his day to day life and would like to make his life happier in every possible manner, his tendency to growl and grumble will steadily disappear.” After working for long hours the workers don’t have any time for recreation and they live in strange uncongenial environment and easily become victims of gambling, drinking liquor and other such evils. Hence, Employee welfare prevent these evils by working from foundational level. It instills in them the spirit of self-realization and improved productive efficiency and better lifestyle.
1.8 LIMITATIONS OF EMPLOYEE WELFARE PROGRAMMES

Following may be considered as limitations of Employee Welfare Programmes –

**Charge of Paternalism**

It was seen that too many welfares and services were rendered to the employees, a situational scene where employers as parents and employees as children was coming in vogue. Sometimes it was also witnessed that the employees began to mistake the welfare measures as their “right” while the case is not really so.

**Excessive Expenditure**

The welfare benefits and services administration is a pretty costly affair. It involves lot of paperwork and huge amount of direct and indirect financial expenditure.

**Fads Become Fashionable**

If one company introduces the welfare practices the other firms are indirectly compelled to introduce welfare practices in the same vein. For example, credit unions and severance were novel practices once but now it has become common in industry.

**Maintenance of the least productive workers**

In certain cases, it was witnessed that less productive employees utilized the welfare benefits but never took measures to improve their productivity. They tend to stick to the jobs without improving themselves.

**Neglect of other personnel function**

Over emphasis on welfare programmes and services develops further concern in employees regarding their future security and they not really concentrate on their productivity. The organization’s welfare services relation with employee motivational level is not that strong.
Administration of Welfares and Services

It’s a hectic task for the organization to administer welfare schemes. It is difficult to determine the viability of the welfare measures. Employees’ too do not show any participation which is very big problem. Consequentially, managers also show very feeble interest into it. Managers are least aware of the welfare policy and their contribution towards quality of corporate life. Trade Unions fear it as they see it as a threat which would erode their base.

1.9 PRINCIPLES OF EMPLOYEE WELFARE PROGRAMMES

The employee welfare practices should fetch the organization at least equal returns as much as cost is invested. This is a cardinal principal and there are other generalizations that are also applicable. Among these principles are the following

1. The employee welfare should be concerned about fulfilling employees’ real needs.
2. Efficient groups should be entitled Welfares measures than individual employees.
3. The welfare programs should be designed with flexibility so that the varying needs of employees are accommodated.
4. An extensive and well planned communication programme must be organized if the firm is to receive values for providing employee services.
5. The welfare measures cost should be well calculated and provisions should be based after well thought about finances.
6. Many times, the welfare practices are not implemented for reasons of managers’ ego. They show outright resistance and believe that they know well, what’s best in employees’ interest.

The welfares selected should be more group oriented than individual oriented. this also proves to be cost effective. those that can be best handled by a group approach. For example, Life insurance purchased as a group can be obtained at significantly lower price than the same insurance purchased by the individual.
It suggests equality of all employees in terms of age, family status, and financial requirements. However, one standard welfare programme may not be suitable to all, hence, designing at least five welfare programmes are needed to benefit the employees appropriately each of the following category -

1. single workers,
2. married workers with no children,
3. married with young dependents,
4. married with dependents in college, and
5. empty nesters.

The last and most important principle is that the welfare measures costs should be well calculable and be based on sound financing specially while dealing with employee pensions.

Sound actuarial estimates must be made before conceding the services. It is more suitable to have adequate funds for financing welfare facilities before -hand than relying upon collective bargaining. The surveys reveal that these costs are fairly expensive affair and its takes huge funds to administer them. Therefore, budgeting has to be done after adequate actuarial estimations and based on sound financing decision.

**PART 2 – RESEARCH METHODOLOGY**

**1.10 OBJECTIVES OF THE STUDY**

The objectives of this research study are

1. To study the level of **awareness** among the non-managerial employees about the employee welfare measures in select units from Cement and Steel Industry in Ananthapuramu District.
2. To understand the level of **satisfaction** among the non-managerial employees about the employee welfare measures provided in the select organisations.
3. To determine the **priority** levels given by the managerial level employees towards the employee welfare measures provided in the select organisations.
4. To study the relationship between the level of priority given by the managerial employees and the levels of awareness and satisfaction of non-managerial level employees towards the employee welfare measures provided in the select organisations.

5. To suggest the employee welfare measures that are to be focussed on by the management of the respondent organisations for improving the awareness and satisfaction levels of employees regarding the employee welfare measures.

1.11 LOCATION OF THE RESEARCH STUDY

For the purpose of the study the researcher selected two major organizations viz. Penna Cement Industries Limited & Gerdau Steel Industries that belong to two major industries viz. Cement industry and Steel industry in the Ananthapuramu district. Ananthapuramu District is a district in the Rayalaseema region of Andhra Pradesh, India.

The select organisations have been chosen based on following merits that the organisations belong to the two of the industries that form a major part of the Industrial profile of the district. Collectively the organisations provide employment to almost 2500 persons who majorly belong to the nearby region and also include persons from various parts of the state and the country. Moreover since the subject of the study focuses on the employee statutory and non-statutory welfare measures, it is a basic requirement that the human resource should play a vital role in the operations of the sample organisations and this applies to both the select organisations.

The Ananthapuramu district headquarters is located at city of Ananthapuramu. As of 2011 Census, the district had a population of 4,083,315, of which 28.09% is urban and a literacy rate of 64.28% with 9,68,160 households, ranking it as the 7th most populous district in the state. Ananthapuramu has a sex ratio of 977 females for every 1000 males, and a literacy rate of 63.57%. It is the largest district in terms of area in Andhra Pradesh and 7th largest district in India respectively. It is the largest district of Andhra Pradesh spanning an area of 19,130 square kilometres (7,390 sq mi). It is bounded on the north by Kurnool District, on the east by Kadapa District, on the
southeast by Chittoor District, and on the southwest and west by Karnataka state. It is part of Rayalaseema region of the Andhra Pradesh state. Its northern and central portions are a high plateau, generally undulating, with large granite rocks or low hill ranges rising occasionally above its surface. In the southern portion of the district the surface is more hilly, the plateau there rising to 2,000 ft (610 m) above the sea. Six rivers flow within the district Penna, Chitravathi, Vedavathi, Papagni, Swarnamukhi, and Thadakaleru. The district receives an average annual rainfall of 381 millimeters.

Ananthapuramu city is 354 km from Hyderabad, 200 km from the neighbouring state capital of Bangalore. Ananthapuramu connects Hyderabad and Bangalore through National Highway 7. There is an airport in the district located in Puttaparthi, known as Sri Sathya Sai Airport; however this airport currently has no scheduled service. Bangalore International Airport is nearest commercial airport to Ananthapuramu District.

As derived from the "Economy of Ananthapuramu District" issued by Andhra Pradesh Economic Development Board, the Gross District Domestic Product (GDDP) of the district is INR 35,838 crore (US$5.6 billion) and it contributes 6.8% to the Gross State Domestic Product (GSDP). For the FY 2013-14, the per capita income at current prices was INR 69,562 (US$1,100). The primary, secondary and tertiary sectors of the district contribute 9,944 crore (US$1.5 billion), 7,752 crore (US$1.2 billion) and 18,142 crore (US$2.8 billion) respectively to the GDDP.

Ananthapuramu has industries like constructions, steel, cement and electricity are major contributors for GVA (Gross value added is the measure of the value of goods and services produced in an area, industry or sector of an economy). Ananthapuramu has a major potential for development of industry due to its strategic location between Bangalore – Hyderabad route and availability of vast tracts of land. Ananthapuramu district has considerable availability of minerals. Dolomite, iron ore, limestone, prophylite, quartz and stealite are some important minerals available in the district.
Tab. No. 1.11.1

Production of Minerals in Ananthapuramu district in Year 2015-16

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<tr>
<th>S. No.</th>
<th>Mineral</th>
<th>Production (in tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dolomite</td>
<td>1027641</td>
</tr>
<tr>
<td>2</td>
<td>Iron ore</td>
<td>102620</td>
</tr>
<tr>
<td>3</td>
<td>Lime</td>
<td>1791432</td>
</tr>
<tr>
<td>4</td>
<td>Quartz</td>
<td>75560</td>
</tr>
<tr>
<td>5</td>
<td>Shale</td>
<td>45362</td>
</tr>
<tr>
<td>6</td>
<td>Prophylite</td>
<td>425</td>
</tr>
<tr>
<td>7</td>
<td>Steatite</td>
<td>25158</td>
</tr>
</tbody>
</table>

Source – Dept of Mines & Geology

1.12 SIGNIFICANCE OF THE STUDY

This study titled “Employee Welfare in Cement and Steel industry (A study with special reference to select units in Ananthapuramu District)” makes a genuine attempt to study the Employee Welfare in a perspective which is not being much explored until now. The subject has been studied by the way of grouping the various employee welfare measures provided by the respondent organisations into 8 groups (7 groups of statutory welfare measures based on the governing Labour Legislation and the last group namely Non-Statutory Welfare measures that cover those welfare measures that are given voluntarily by the respondent organisations) and by studying these welfare measures in the perspective of non-managerial class employees and the managerial class employees simultaneously thereby deriving the relationships between them and finally attempts to suggest the employee welfare measures that are to be focussed on by the management of the respondent organisations for improving the awareness and satisfaction levels of employees regarding the employee welfare measures.

This kind of study on the subject Employee Welfare has not been undertaken earlier which leads the researcher to strongly believe that the outcome of the research might be of good use to the management of the organisations to understand the level of awareness and satisfaction of the non-managerial employees regarding various
employee welfare measures provided by the organization and also identify the gaps between the perspectives of the managerial and non-managerial group of employees regarding the same.

The outcome of the study can be a useful tool for the managements of the organisations to understand the various gaps in the implementation of the welfare facilities and the desires of the employees availing the same. This information might be taken up by the managements of the organisations to plan and execute necessary steps to fill the identified gaps by way of restructuring the budget allocated for various employee welfare measures, increasing the briefing sessions to the employees regarding the managements’ efforts to implement the employee welfare facilities in a nicer manner, by way of having detailed discussions with the line managers and doing an in house survey to know further the ways to improve the employee satisfaction with the managements’ efforts in implementing the employee welfare facilities etc.

This will pave way for the management or the organisations to undertake efforts to bridge the gaps prevailing in the implementation of employee welfare measures in their organisation and ensuring that the budget allocated for the employee welfare measures is effectively utilised resulting in a more satisfied workforce.

1.13 NEED FOR THE STUDY

Employee welfare is one of the prime necessities in the context of any organisation belonging to any industry. The remarkable feature of the Employee welfare is that this is a direct expenditure to the organisation which when spent wisely, can bring in lot of benefits to the organisation in terms of satisfied and efficient workforce resulting in increased production capacity, less absenteeism, less employee turnover etc. At the same time, if the expenditure on providing employee welfare is not spent wisely, this can become fully wasted without doing any good back to the organisation. Moreover the negative effects of improper implementation of the welfare measures may precipitate in such a manner that bring in variety of troubles to the management.
The aspirations of the employees towards the welfare measures keep changing as the changes in the societal life of the employee which makes the validity of the studies on employee welfare fade away with time. This marks the necessity of undertaking the studies on Employee welfare periodically which also elucidates the need of this study. This remarkable feature about the Employee welfare studies along with the identified research gap in Chapter 2 forms the basis of the Need of this study.

1.14 STATEMENT OF THE PROBLEM

The present day industrial scenario in India is majorly globalized and highly competitive. In such a context, it is a necessity for the businesses to be competitive in order to stay head high. Review on the studies on employee welfare and its impact on the various factors that improve organisational performance show that no matter how sophisticated strategy the industry plans, its successful implementation is essentially undertaken by the appropriate human resources (employees) of the organisation. If the capabilities of employees are utilised in an effective manner then the other factors of production i.e. material, machinery and money, would also be fully utilised. An important aspect of the organisation’s success is to keep the employees motivated and satisfied. The organisational quality is not only measured by the material benefits it provides to its employees, but also with the chances the employees get to enhance their level of satisfaction and motivation. To meet this need of the hour, it becomes imperative to provide employee welfare measures in an organisation in a best possible way to ensure the effective utilization of the finances spent under this overhead. This study on the Employee Welfare has been undertaken in this pretext.

The selected industries viz. Cement and Steel industry are both labour oriented industries and India rides ahead in the global race of these two industries. With reference to Cement Industry, India is at 2nd largest position in terms of both production as well as consumption of Cement. Cement Industry in India thrives due to the high level of activity going on in private real estate sectors as well as high government spending is allocated for building of smart cities and urban infrastructure. With reference to Steel Industry, the global production of crude steel has reached
1630 MT (million tonnes) in the year 2016. India stood at No.4 position with a production of 96 MT of crude steel in 2016. India is striving hard to become global leaders in these two industrial sectors.

During the period between 2009 and 2014, the state of Andhra Pradesh has witnessed a lot of political turmoil until the split of the state into two states Telangana and Andhra Pradesh. There was an utter chaos across the state during this period which had a great impact on all the industries in the state. After the split, both the states have started focusing on the growth of its industries. The district of Ananthapuramu belongs to the residuary state of Andhra Pradesh and has industries like constructions, steel, cement and electricity which form major contributors for GVA (Gross value added is the measure of the value of goods and services produced in an area, industry or sector of an economy). Ananthapuramu has a major potential for development of industry due to its strategic location between Bangalore – Hyderabad routes and availability of vast tracts of land. Ananthapuramu district has considerable availability of minerals. Dolomite, iron ore, limestone, prophylite, quartz and stealite are some important minerals available in the district.

This study titled “Employee Welfare in Cement and Steel industry (A study with special reference to select units in Ananthapuramu District)” makes a genuine attempt to study the Employee Welfare in a perspective which is not being much explored until now. The study has been made in the respondent organisations namely Gerdau Steel Plant, Jambulapadu Village and Penna Cement Plant, Talaricheruvu Village both located at Tadipatri Mandal of Ananthapuramu District.

The present study is aimed at addressing the following significant research issues –

1. Is there considerable awareness among the non-managerial employees regarding the employee welfare measures provided in the select units in Ananthapuramu district?
2. Is there considerable satisfaction among the non-managerial employees regarding the employee welfare measures provided in the select units in Ananthapuramu district?
3. Is considerable priority being given by the managerial employees towards the employee welfare measures provided in the select units in Ananthapuramu district?

4. Is there any relationship between the level of priority given by the managerial employees and the levels of awareness and satisfaction of non-managerial level employees?

5. Are there any one or more welfare measure(s) that can be considered as highly influential on the awareness and satisfaction levels of the employees compared to other welfare measures?

1.15 SCOPE OF THE STUDY

The Scope of the study can be defined as the stretched boundaries of various parameters with-in which the study dwells. The parameters may be of the geographical area, subject area and so on.

1. The present study deals with the studying of Employee Welfare measures provided in the respondent organisations which are grouped into 8 groups (7 groups of statutory welfare measures based on the governing Labour Legislation and the last group namely Non-Statutory Welfare measures that cover those welfare measures that are given voluntarily by the respondent organisations). The 8 groups are as follows –

   i. Health Provisions of the Factories Act, 1948
   ii. Safety Provisions of the Factories Act, 1948
   iii. Welfare Provisions of the Factories Act, 1948
   iv. The Employee’s State Insurance Act, 1948
   v. The Payment of Gratuity Act, 1972
   vi. The Workmen’s Compensation Act, 1923
   viii. Non-Statutory Welfare Measures

From each of the above mentioned eight groups, 6 salient welfare measures are considered for the study.
2. The study focuses on the organisations with in Ananthapuramu district and the sample organisations has been selected out of the organisations with in the district basis their impact in the industrial setup of the district which has been explained in the “Setting of the Present Research” of this thesis. The study has considered the following organisations from cement and steel industry respectively. They are Penna Cement Plant in Talaricheruvu Village, Gerdau Steel Plant in Jambulapadu Village, both located at Tadipatri Mandal of Ananthapuramu District, Andhra Pradesh, INDIA

3. The study attempts to find out the awareness and satisfaction levels of the non-managerial class of employees and simultaneously examines the priority levels given by the managerial class employees with regards to the employee welfare measures provided by the sample organisations and processes the data obtained to achieve the objectives of the study as stated above.

4. The study stretches to derive the relationship between the level of priority given by the managerial employees and the levels of awareness and satisfaction of non-managerial level employees.

5. The study extends to suggest the employee welfare measures that are to be focussed on by the management of the respondent organisations for improving the awareness and satisfaction levels of employees regarding the employee welfare measures.

1.16 LIMITATIONS OF THE STUDY
In addition to general limitations like time and money, this research study faced following limitations –

1. Due to the immensity of the topics covered by the study, the study was confined to only two respondent organisations (One from each industry) which were chosen by considering factors like the size of the organization, the no. of
employees working, the economic influence of the organization in the industrial profile of the district etc.

2. The Maternity benefit act, 1961 though is one of a major legislation related to Employee welfare has not been taken in to account in the present study since the no. of women employees in both the respondent organisations are low and they were not responsive to the approach made by the researcher to do the study about their views regarding the subject. Hence the gender of the respondent has not been considered in the demographic factors of the study.

3. The topics covered by the study is very sensitive and elaborative. The employees were reluctant and uncertain if their identities would be revealed. It took lot of time for the researcher to explain the focus of the study, meaning of the questions etc. to the respondents and win their trust. This posed following limitations to the researcher
   a. The study couldn’t cover all the employee welfare measures covered in the studied acts.
   b. The study couldn’t cover all the statutory acts that are related to Employee Welfare Measures.
   c. The study couldn’t cover all the employee welfare measures provided by the respondent organisations.

1.17 RESEARCH DESIGN
Research methodology is the scientific way to solve the research problem. This involves exploring all possible methods of solving the research problem; examine the alternative methods one by one and arriving at the best possible method considering the resources at the disposal of the researcher. Both Quantitative and Qualitative research methods have an equally reputable place in business and management researches. This research falls in the category of both quantitative and qualitative research that requires critical analysis and elucidation.
The research process involved in the present study can be classified as

1. Enlisting the Hypothesis
2. Determination of Sample
3. Construction of Data Collection tools
4. Data Collection
5. Application of Statistical Tools on collected data & inferring results
6. Interpretation of results in meaningful form

1.18 LIST OF HYPOTHESES CONSIDERED IN THE STUDY

Following is the list of Hypotheses that the present study aims at determining by way of applying statistical tools and processing the collected data.

Hypotheses formulated for Analysis of Objectives no.1, 2 & 3 –

1. **Health Provisions of the Factories Act, 1948**
   a. Null Hypothesis $H_{0-Aw-FAH}$
      The respondent Non-Managerial class employees of the organizations do not have considerable awareness about the employee welfare measures provided by the sample organisations that comes under the Health Provisions of the Factories Act, 1948.

   b. Null Hypothesis $H_{0-Sa-FAH}$
      The respondent Non-Managerial class employees of the organizations do not have considerable satisfaction about the employee welfare measures provided by the sample organisations that comes under the Health Provisions of the Factories Act, 1948.

   c. Null Hypothesis $H_{0-Pr-FAH}$
      The respondent Managerial class employees of the organizations do not give considerable priority to the employee welfare measures provided by the sample organisations that comes under the Health Provisions of the Factories Act, 1948.
   a. Null Hypothesis $H_{0-Aw-FAS}$
      The respondent Non-Managerial class employees of the organizations do not have considerable awareness about the employee welfare measures provided by the sample organisations that comes under the Safety Provisions of the Factories Act, 1948

   b. Null Hypothesis $H_{0-Sa-FAS}$
      The respondent Non-Managerial class employees of the organizations do not have considerable satisfaction about the employee welfare measures provided by the sample organisations that comes under the Safety Provisions of the Factories Act, 1948

   c. Null Hypothesis $H_{0-Pr-FAS}$
      The respondent Managerial class employees of the organizations do not give considerable priority to the employee welfare measures provided by the sample organisations that comes under the Safety Provisions of the Factories Act, 1948.

   a. Null Hypothesis $H_{0-Aw-FAW}$
      The respondent Non-Managerial class employees of the organizations do not have considerable awareness about the employee welfare measures provided by the sample organisations that comes under the Welfare Provisions of the Factories Act, 1948

   b. Null Hypothesis $H_{0-Sa-FAW}$
      The respondent Non-Managerial class employees of the organizations do not have considerable satisfaction about the employee welfare measures provided by the sample organisations that comes under the Welfare Provisions of the Factories Act, 1948
c. Null Hypothesis $H_0$-Pr-FAW—
The respondent Managerial class employees of the organizations do not give considerable priority to the employee welfare measures provided by the sample organisations that comes under the Welfare Provisions of the Factories Act, 1948.

4. Employee’s State Insurance Act, 1948
a. Null Hypothesis $H_0$-Aw-ESI—
The respondent Non-Managerial class employees of the organizations do not have considerable awareness about the employee welfare measures provided by the sample organisations that comes under the Employee’s State Insurance Act, 1948

b. Null Hypothesis $H_0$-Sa-ESI—
The respondent Non-Managerial class employees of the organizations do not have considerable satisfaction about the employee welfare measures provided by the sample organisations that comes under the Employee’s State Insurance Act, 1948.

c. Null Hypothesis $H_0$-Pr-ESI—
The respondent Managerial class employees of the organizations do not give considerable priority to the employee welfare measures provided by the sample organisations that comes under the Employee’s State Insurance Act, 1948.

5. Payment of Gratuity Act, 1972
a. Null Hypothesis $H_0$-Aw-PGA—
The respondent Non-Managerial class employees of the organizations do not have considerable awareness about the employee welfare measures provided by the sample organisations that comes under the Payment of Gratuity Act, 1972.
b. Null Hypothesis $H_{0-Sa-PGA}$—
The respondent Non-Managerial class employees of the organizations do not have considerable satisfaction about the employee welfare measures provided by the sample organisations that comes under the Payment of Gratuity Act, 1972.

c. Null Hypothesis $H_{0-Pr-PGA}$—
The respondent Managerial class employees of the organizations do not give considerable priority to the employee welfare measures provided by the sample organisations that comes under the Payment of Gratuity Act, 1972.

6. Workmen’s Compensation Act, 1923

a. Null Hypothesis $H_{0-Aw-WCA}$—
The respondent Non-Managerial class employees of the organizations do not have considerable awareness about the employee welfare measures provided by the sample organisations that comes under the Workmen’s Compensation Act, 1923

b. Null Hypothesis $H_{0-Sa-WCA}$—
The respondent Non-Managerial class employees of the organizations do not have considerable satisfaction about the employee welfare measures provided by the sample organisations that comes under the Workmen’s Compensation Act, 1923.

c. Null Hypothesis $H_{0-Pr-WCA}$—
The respondent Managerial class employees of the organizations do not give considerable priority to the employee welfare measures provided by the sample organisations that comes under the Workmen’s Compensation Act, 1923.
   a. Null Hypothesis $H_{0-Aw-EPF}$
      The respondent Non-Managerial class employees of the organizations do not have considerable awareness about the employee welfare measures provided by the sample organisations that comes under the Employees’ Provident Funds & Misc. Provisions Act, 1952.
   
   b. Null Hypothesis $H_{0-Sa-EPF}$
      The respondent Non-Managerial class employees of the organizations do not have considerable satisfaction about the employee welfare measures provided by the sample organisations that comes under the Employees’ Provident Funds & Misc. Provisions Act, 1952.
   
   c. Null Hypothesis $H_{0-Pr-EPF}$
      The respondent Managerial class employees of the organizations do not give considerable priority to the employee welfare measures provided by the sample organisations that comes under the Employees’ Provident Funds & Misc. Provisions Act, 1952.

8. Non-Statutory Welfare Measures
   a. Null Hypothesis $H_{0-Aw-NSW}$
      The respondent Non-Managerial class employees of the organizations do not have considerable awareness about the employee welfare measures provided by the sample organisations that comes under the Non-Statutory Welfare Measures.
   
   b. Null Hypothesis $H_{0-Sa-NSW}$
      The respondent Non-Managerial class employees of the organizations do not have considerable satisfaction about the employee welfare measures provided by the sample organisations that comes under the Non-Statutory Welfare Measures.
c. Null Hypothesis $H_0$ - $Pr_{NSW}$ –
The respondent Managerial class employees of the organizations do not give considerable priority to the employee welfare measures provided by the sample organisations that comes under the Non-Statutory Welfare Measures.

Hypotheses formulated for Analysis of Objectives no.4 –

9. Correlation Analysis
   a. Null Hypothesis $H_0$ - $Rel_{Pr/Aw}$ –
   There is no correlation between the Priority levels given by Managerial class employees towards employee welfare measures and the Awareness levels of Non-Managerial class employees with regards to employee welfare measures (equivalent to saying $r=0$)

   b. The 'Null Hypothesis $H_0$ - $Rel_{Pr/Sa}$ –
   There is no correlation between the Priority levels given by Managerial class employees towards employee welfare measures and the Satisfaction levels of Non-Managerial class employees with regards to employee welfare measures (equivalent to saying $r=0$).

   c. The 'Null Hypothesis $H_0$ - $Rel_{Aw/Sa}$ –
   There is no correlation between the Awareness levels of Non-Managerial class employees with regards to their Satisfaction levels with regards to employee welfare measures (equivalent to saying $r=0$).

1.19 SAMPLING
The universe of the study comprises of all the employees working in various organisations in the Cement and Steel industry in the district of Ananthapuramu in Andhra Pradesh state.

For the study regarding the awareness and satisfaction levels of the non-managerial
class employees, the population of the study is the total non-managerial class employees working in the select organisations of Penna Cement Plant located in Talaricheruvu village of and Gerdau Steel plant located in Jambulapadu Village.

For the study regarding the priority levels given by the managerial class employees, the population of the study is the total managerial class employees working in the select organisations of Penna Cement Plant located in Talaricheruvu village of and Gerdau Steel plant located in Jambulapadu Village.

On the basis of Simple Random sampling, managerial and non-managerial class employees were selected from both the sample organisations from various departments in proportion to the no. of the employees in the departments.

**Sample statistics for Non-Managerial Class Employees –**

<table>
<thead>
<tr>
<th></th>
<th>Non-managerial class employees</th>
<th>% of Non-managerial class of employees taken for study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Population</td>
<td>Sample</td>
</tr>
<tr>
<td>Penna Cement</td>
<td>1049</td>
<td>204</td>
</tr>
<tr>
<td>Gerdau Steel</td>
<td>941</td>
<td>181</td>
</tr>
<tr>
<td>Combined</td>
<td>1990</td>
<td>385</td>
</tr>
</tbody>
</table>

Source – Primary Data
From the above it can be interpreted that, in Penna cement plant, out of the total population of 1049 employees in the working class, 204 employees has been drawn as sample by the way of Simple Random sampling method which forms 19.44% of total population. The overall distribution of these 1049 employees in various departments has been taken into account while drawing the sample in such a manner that the sample employees are in proportion to the population of employees department wise.

In the Gerdau steel, out of the total population of 941 employees in the working class, 181 employees have been drawn as sample by the way of Simple Random sampling method which forms 19.23% of total population. The overall distribution of these 941 employees in various departments has been taken into account while drawing the sample in such a manner that the sample employees are in proportion to the number of employees department wise.

While analyzing the combined data of the sample size of non-managerial class employees taken in both the respondent organisations, it can be noted that out of total population size of 1990 numbers of non-managerial class employees, total of 385 employees has been taken as sample size which forms about 19.34% of total population.
Sample statistics for Managerial Class Employees –

Tab. No. 1.19.2

Percentage of Managerial class of employees taken for study

<table>
<thead>
<tr>
<th>Population</th>
<th>Sample</th>
<th>% of Managerial class of employees taken for study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penna Cement</td>
<td>97</td>
<td>60</td>
</tr>
<tr>
<td>Gerdau Steel</td>
<td>104</td>
<td>68</td>
</tr>
<tr>
<td>Combined</td>
<td>201</td>
<td>128</td>
</tr>
</tbody>
</table>

Source – Primary data

Chart No. 1.19.2

Percentage of Managerial class of employees taken for study

From the above it can be interpreted as, in the Penna cement plant, out of the total population of 97 employees in the working class, 60 employees has been drawn as sample by the way of Simple Random sampling method which forms 61.85% of total population. The overall distribution of these 97 employees in various departments has been taken into account while drawing the sample in such a manner that the sample employees are in proportion to the population of employees department wise. In the
Gerdau steel, out of the total population of 104 employees in the working class, 68 employees have been drawn as sample by the way of Simple Random sampling method which forms 65.38% of total population. The overall distribution of these 104 employees in various departments has been taken into account while drawing the sample in such a manner that the sample employees are in proportion to the number of employees department wise. While analyzing the combined data of the sample size of non-managerial class employees taken in both the respondent organisations, it can be noted that out of total population size of 201 numbers of non-managerial class employees, total of 128 employees has been taken as sample size which forms about 63.68% of total population.

Profile of the Sample Respondents

Profile of Non-Managerial Level Employees
Workers who formed the sample of non-managerial class employees were those who passed Higher Secondary Course, Science/Commerce graduates, Diploma holders from the Industrial Training Institutes and also there were workers who were not educated until Higher Secondary Course. The workers in the sample were analysts, stores-in-charge, chemists, accounts assistant, office assistant, security men and their supervisor, housekeeping supervisor and workers, fitters, and operators.

Profile of Managerial Level Employees
The sample of the employees from the managerial class that were studied was well-qualified holding Bachelors and Masters Degrees. These included Bachelor of Mechanical Engineering, Bachelor of Chemical Engineering, and Bachelor of Science along with additional qualifications in Masters degree in Science, Masters in Business Administration [M.B.A.], Diploma in Mechanical Engineering, Master of computer applications [M.C.A.]. The managers were holding designations as human resource managers, personnel administration managers, quality control managers, quality assurance managers, assistant managers, assistant production managers and production managers etc.
DEMOGRAPHIC FEATURES OF THE SAMPLES

The personal attributes of the sample studied included their age, educational qualification, annual income and experience in the organization. The below tables shows the demographic data obtained for the study.

Demographic data of the non-managerial class employees

Tab. No. 1.19.3
Demographic data of the non-managerial class employees

| Questionnaire 1 - Level of Awareness & Questionnaire 2 - Level of Satisfaction, Distributed to Sample size of 385 Employees (Both Penna Cement Plant & Gerdau Steel Plant together) |
|---|---|
| **Age** | Total – 385 |
| 30 years or below | 104 |
| 31 to 40 years | 171 |
| 41 to 50 years | 61 |
| Above 50 years | 49 |
| **Educational Qualification** | Total – 385 |
| SSC or Below | 169 |
| Intermediate | 102 |
| Graduate | 61 |
| Post Graduate | 53 |
| **Annual Income in INR** | Total – 385 |
| 1 lakh or below | 183 |
| 1 lakh to 3 lakhs | 88 |
| 3 lakhs to 5 lakhs | 63 |
| Above 5 lakhs | 47 |
| **Experience in the organization** | Total – 385 |
| 4 years or below | 24 |
| 4 to 9 years | 252 |
| 9 to 15 years | 102 |
| Above 15 years | 7 |

Source – Primary data
Demographic data of the managerial class employees

Tab. No. 1.19.4

Demographic data of the managerial class employees

<table>
<thead>
<tr>
<th>Questionnaire 3 – Level of Priority</th>
<th>Distributed to Sample size of 128 Employees</th>
<th>(Both Penna Cement Plant &amp; Gerdau Steel Plant together)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Total – 128</td>
<td>30 years or below 21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>31 to 40 years 56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>41 to 50 years 36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Above 50 years 15</td>
</tr>
<tr>
<td>Educational Qualification</td>
<td>Total – 128</td>
<td>Graduate 66</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post Graduate 62</td>
</tr>
<tr>
<td>Annual Income in INR</td>
<td>Total – 128</td>
<td>3 lakhs or below 23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 lakhs to 5 lakhs 77</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 lakhs to 10 lakhs 22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Above 10 Lakh 6</td>
</tr>
<tr>
<td>Experience in the organization</td>
<td>Total – 128</td>
<td>4 years or below 25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 to 9 years 73</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9 to 15 years 20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Above 15 years 10</td>
</tr>
</tbody>
</table>

Source – Primary data

1.20 DATA COLECION

The data required for the present study has been collected from both the primary and secondary data sources.

For collecting the primary data required for the present study, following research instruments has been used –

a) Questionnaire
b) Personal Interviews
Primary Data

a) Questionnaires

The primary data required to determine the level of awareness and the level of satisfaction of the non-managerial class employees regarding the various employee welfares provided by the sample organisations has been acquired by way of direct interaction with sample employees in the way of personal interviews, informal discussions and distribution of 2 nos. questionnaires as follows –

1. Level of Awareness
2. Level of Satisfaction

Each of the two questionnaires above has questions as shown in Tab. No. 1.20.1

Tab. No. 1.20.1
Details of Questionnaire No.1 & No.2

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>GROUP</th>
<th>No. of questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Health Provisions of the Factories Act, 1948</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Safety Provisions of the Factories Act, 1948</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>The Employee’s State Insurance Act, 1948</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>The Payment of Gratuity Act, 1972</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>The Workmen’s Compensation Act, 1923</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>The Employees’ Provident Funds &amp; Misc. Provisions Act, 1952</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>Non-Statutory Welfare Measures</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Questions</strong></td>
<td></td>
<td><strong>48</strong></td>
</tr>
</tbody>
</table>
The primary data required to determine the priority (Objective no.3) levels given by the managerial level employees towards the employee welfare measures provided in the select units has been acquired by way of direct interaction with sample employees in the way of personal interviews and distribution of following questionnaire as follows –

3. Level of Priority

The questionnaire has questions as shown in Tab. No. 1.20.2.

**Tab. No. 1.20.2**

*Details of Questionnaire No.3*

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>GROUP</th>
<th>No. of questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Health Provisions of the Factories Act, 1948</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Safety Provisions of the Factories Act, 1948</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>The Employee’s State Insurance Act, 1948</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>The Payment of Gratuity Act, 1972</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>The Workmen’s Compensation Act, 1923</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>The Employees’ Provident Funds &amp; Misc. Provisions Act, 1952</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>Non-Statutory Welfare Measures</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Questions</strong></td>
<td></td>
<td><strong>48</strong></td>
</tr>
</tbody>
</table>

**b) Personal Interviews**

A personal interview survey, also called as a face-to-face survey, is a survey method that is utilized when a specific target population is involved. The purpose of conducting a personal interview survey is to explore the responses of the people to gather more and deeper information. The personal interviews used in this research were more of informal discussions aimed at excavating those information which usually the respondents hesitate to answer in written format due to a lot of limitation factors.
Secondary Data

The secondary data required for the present study has been collected from already published material by the organizations in the form of newsletters, magazines, articles, in-house survey reports etc. The secondary data has also been collected from local government publications with respects to local people attitudes, needs, interests etc., from newspaper articles which has reference to general welfare activities undertaken by the organisations in the area of the study etc.

1.21 STATISTICAL TOOLS USED

Chi-square Test\textsuperscript{34}

A chi-square test is a statistical hypothesis test wherein the sampling distribution of the test statistic is a chi-squared distribution when the Null Hypothesis is true. The chi-squared test is used to determine whether there is a significant difference between the expected frequencies and the observed frequencies in one or more categories.

\[
\chi^2 = \sum \frac{(O - E)^2}{E}
\]

O = the frequencies observed
E = the frequencies expected
\(\Sigma\) = symbol to denote the Summation

In this study, the Chi-square test is used to determine if there is any association between the demographic factor under study and the attribute of the welfare measure which is being considered.
\textit{t-Test}\textsuperscript{35}

The \textit{t-Test} is used to determine if two sets of data are significantly different from each other. A \textit{t}-test is most commonly applied when the test statistic would follow a normal distribution if the value of a scaling term in the test statistic were known. In the present study, \textit{t}-test is used for analysis of Objective no.1, 3 and 5 as follows –

1. For analysis of Objective No.1, The \textbf{\textit{t-Test}} is then applied on the primary data collected through Questionnaire no.1 for measuring the level of awareness among the non-managerial employees about the employee welfare measures. The \textit{t}-test is used to find the presence of significant mean difference between the various welfare measures. The welfare measures with no significant mean difference is omitted for further analysis.

2. For analysis of Objective No.3, The \textbf{\textit{t-Test}} is applied on the primary data collected through Questionnaire no.3 for measuring the level of priority given by the managerial employees towards the employee welfare measures. The \textit{t}-test is used to find the presence of significant mean difference between the various welfare measures. The welfare measures with no significant mean difference is omitted for further analysis.

3. For analysis of Objective No.5, the \textit{t-Test} is used to check the mean differences between the extracted high load factors derived from Exploratory Factor Analysis.

\textbf{Weighted Average}\textsuperscript{36}

The \textbf{weighted average} is a measure of an average in which it is assumed that, instead of each of the data points contributing equally to the final average, some data points contribute more than others. The weighted average is a mean calculated by giving values to the data set identify the more influence according to some attribute of the data.

\[
\text{Weighted Avg}_x = w_1x_1 + w_2x_2 \ldots w_nx_n
\]

\[
w = \text{relative weight(\%)}
\]

\[
x = \text{value}
\]
In the present analysis, Weighted Averages tool is used for the analysis of objective no.1 to find the effect of each of the attribute in a given set of Act on the overall result of the Act in assessing the level of awareness of the non-managerial class employees regarding the employee welfare measures.

**Analysis of Variance (ANOVA)**

It is a statistical technique which is used to test the equality of three or more sample means. Based on the means, inference is drawn whether samples belongs to same population or not. There are two types of ANOVA, namely one way ANOVA and Two-way ANOVA.

In the present study one way ANOVA is used for analysis for 2nd objective and 5th objective as follows –

1. For analysis of 2nd objective, ANOVA is used to identify the mean difference within the group and with the group for the level of satisfaction of non-managerial employees towards the employee welfare measures.
2. For analysis of 5th objective, ANOVA is applied on all the extracted factors to check if those factors will have influence on the awareness and satisfaction levels of employees.

**Discriminant Analysis**

It is a method used in statistics, pattern recognition and machine learning to find a linear combination of features that characterizes or separates two or more classes of objects or events. The resulting combination may be used as a linear classifier, or, more commonly, for dimensionality reduction before later classification. In the present study, the Discriminant analysis has been applied for the analysis of Objective no.2 and Objective no.3 as follows –

1. For the analysis of 2nd objective, Discriminant analysis is used after confirming that the reliability co-efficient for each of the category of employee welfare measure is reliable (>0.7) and confirming that the Cumulative Percentage of variables considered is greater than 50%. The Wilks Lambda test is then applied to ascertain the fitness of the model is good
enough to apply Discriminant Analysis and finally Discriminant analysis is performed to find out the level of satisfaction among the non-managerial employees about the employee welfare measures in select units from Cement and Steel Industry in Ananthapuramu District

2. For the analysis of 3rd objective, Discriminant analysis is used after performing Wilks Lambda test to ascertain if the fitness of the model is good enough to apply Discriminant Analysis and then Discriminant Analysis is used to find out the priority levels given by the managerial level employees towards the employee welfare measures provided in the select organisations.

**Pearson’s correlation**

The Pearson’s correlation will measure the relationship between the two variables. It measures the strength of linkage is also called as correlation coefficient, which is normally represent with the letter r. In this present study, Pearson’s correlation is used for analysis of objective no.4 to find the correlation between –

1. the Priority levels given by Managerial class employees towards Employee Welfare Measures and the Awareness levels of Non-Managerial class employees with regards to Employee Welfare Measures
2. the Priority levels given by Managerial class employees towards employee welfare measures and the Satisfaction levels of Non-Managerial class employees with regards to employee welfare measures
3. Awareness levels of Non-Managerial class employees with regards to employee welfare measures and the Satisfaction levels of Non-Managerial class employees with regards to employee welfare measures
Exploratory factor analysis (EFA)\textsuperscript{40}

It is a statistical method used to uncover the underlying structure of a relatively large set of variables. EFA is a technique within factor analysis whose overarching goal is to identify the underlying relationships between measured variables. It is commonly used by researchers when developing a scale (a scale is a collection of questions used to measure a particular research topic) and serves to identify a set of latent constructs underlying a battery of measured variables. In this study, Exploratory Factor Analysis is used for the analysis of 5\textsuperscript{th} Objective as follows –

The KMO and Bartlett's Test is first performed to ensure that the data is suitably adequate for Factor Analysis. Then, the Communalities Test is performed to determine the Extraction values for each of the welfare measure. The welfare measure for which the extraction value is less than 50\% is eliminated for further Factor analysis. After performing the above tests, the Principal Component Analysis is performed to extract the employee welfare measures constituting to the high-load factors.

DATA ANALYSIS

SPSS version 20.0 has been used for the various statistical tools for Data Analysis. This has been done under the guidance of a Statistician.

SCOPE FOR FURTHER RESEARCH has been discussed in Chapter 6 after stating the Conclusions of the present study.