A STUDY OF HUMAN RESOURCE MANAGEMENT PRACTICES IN CHEMICAL INDUSTRIES WITH SPECIAL REFERENCE TO NAVI MUMBAI (2002-2012)

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Declaration

I hereby declare that the thesis entitled **"A STUDY OF HUMAN RESOURCE MANAGEMENT PRACTICES IN CHEMICAL INDUSTRIES WITH SPECIAL REFERENCE TO NAVI MUMBAI (2002-2012)."**completed and written by me has not previously formed the basis for the award of any degree or other similar title upon me of this or any other Vidyapeeth or examining body.

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Place :

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This is to certify that the thesis entitled **"A STUDY OF HUMAN RESOURCE MANAGEMENT PRACTICES IN CHEMICAL INDUSTRIES WITH SPECIAL REFERENCES TO NAVI MUMBAI (2002-2012)."** which is being submitted herewith for the award of the Degree of Vidyavachaspati (PhD) in faculty of Management of Tilak Maharashtra Vidyapeeth, Pune is the result of original research work completed by *Shri. Prakash Digambar Sawant* (PRN 15811001167) under my supervision and guidance. To the best of my knowledge and belief the work incorporated in this thesis has not formed the basis for the award of any Degree or similar title of this or any other University or examining body upon him.

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ACKNOWLEDGEMENT

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List of Abbreviations.

Sr. No	Abbreviation	Long Form
1	**Advt.**	Advertising
2	**AIDS**	Human immunodeficiency virus infection and acquired immune deficiency syndrome
3	**APMC**	Agricultural Produce Market Committee
4	**BID**	Board of Industrial Development
5	**CBD**	Central Business District
6	**CETP**	Common Effluent Treatment Plants
7	**CETP**	Common effluent treatment plant
8	**CIDCO**	City Industrial Development Corporation
9	**CLO**	Chief Labour Officer
10	**Co**	Company
11	**DGTD**	Directorate General of Technical Development
12	**EIS**	Enterprise Information System
13	**ERP**	Enterprise resource planning
14	**ETP**	Effluent Treatment Plants
15	**FABS**	*Flexible Account Billing System.*
16	**GC**	Grievance Committee
17	**HDFC**	Housing Development Finance Corporation
18	**HR**	Human Resources
19	**HRA**	Human Resource Accounting.
20	**HRD**	Human Resource Development
21	**HRM**	Human Resource Management
22	**HRMP**	Human Resource Management Practices
23	**HRP**	Human Resource Planning
24	**ISO**	International Standard Organization
25	**ITC**	input tax credit
26	**JA**	Job Analysis
27	**L & T**	Larsen & Toubro Limited,
28	**LA Act**	Land Acquisition Act
29	**Ltd**	Limited

30	**MIDC**	Maharashtra Industrial Development Corporation
31	**MIDC**	Maharashtra Industrial Development Corporation
32	**MLD**	Million liters per day,
33	**MMRP**	Minimum Monthly Required Payment
34	**MNCs**	Multinational Corporations
35	**MPCD**	Maharashtra pollution Control Board
36	**MRTP**	MONOPOLIES AND RESTRICTIVE TRADE PRACTICES
37	**MSEB**	Maharashtra state Electricity Board
38	**NIO**	National Institute of Oceanography
39	**NMMC**	Navi Mumbai Municipal Corporation
40	**NOCIL**	National Organic Chemical Industries Limited.
41	**NRT**	Net register tonnage
42	**OCED**	Organization for Economic Co Operation and Development
43	**PA**	Performance appraisal
44	**PVT**	Private
45	**RDF**	Refuse Derived Fuel
46	**RPG**	Rocket-propelled grenade
47	**SAP**	Systems, Applications, Products
48	**SEZ**	Special Economic Zone
49	**SPSS**	Statistical Package for the Social Sciences
50	**STP**	Standard temperature and pressure
51	**SWOT**	Strength Weakness Opportunities and threats.
52	**T & D**	Training and Development
53	**TA**	Travelling Allowance
54	**TAT**	Thematic Apperception Test
55	**TBIA**	Thane Belapur Industries Association
56	**TISCO**	Tata Iron Still Company Limited
57	**TQM**	Total Quality management
58	**TTC**	Trans Thane Creek
59	**UK**	United Kingdom
60	**US**	United States
61	**USA**	United State of America
62	**WHO**	World Health Organization

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CHAPTER: - 1

INTRODUCTION & HUMAN RESOURCE MANAGEMENT PRACTICES

[1] *"You Take care of your employees!*

They take care of customers!

Customers take care of Business!

Business takes care of your Profit/ Mission."

--Earnest Dale

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[1]Rao, Subba, P, Essentials of HRM and Industrial Relations, (p-10), Himalaya Publishing House, Pune.

1.1 Introduction

While discussing Human Resource Management, it is necessary to recall what is management?

[2]Management has been defined by Mary Parker Follett as, "the art of getting things done through people,"

According to Henry Fayol, "To manage is to forecast and to plan, to organize, to command, to coordinate and to control."

[3]According to Harold Koontz, "Management is the art of getting things done through and with people in formally organized groups."

According to George Terry, "Management is a distinct process consisting of planning, organizing, actuating and controlling, performed to determine and accomplish stated objectives with the use of human being and other resources."

In 1916, Henry Fayol provided a list of 14 principles in his book titled 'Industrial and General Administration.' Fayol was of the opinion that all managers in all organizations, whether large or small, need to follow the principles or guidelines in managing business affairs.

The 14 principles are as follows:

1. Division of work.
2. Authority and Responsibility.
3. Discipline.
4. Unity of Command.
5. Unity of Direction.
6. Subordination of Interest.
7. Remuneration.
8. Centralization.
9. Scalar chain.
10. Order
11. Equity.
12. Stability of Tenure.
13. Initiative.
14. Esprit de Corps

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[2] Burton Gene, Thakur Manab, Management Today Introduction to Management
[3]Sherlekar S.A. Management (Value Oriented Holistic Approach), Himalaya Publishing House.

Human resource is the working force of the organization which actively participate in production process and its input effectively convert raw material into Finish Product. Industries are growth engines for any country. Industries produce different goods and services to cater different demands of the society as well as it also provide employment opportunities to the individuals. Chemical industries produces polymers, bulk petrochemicals and intermediates, other derivatives and basic industrials, <u>inorganic chemicals</u>, and <u>fertilizers</u> other chemicals for consumption.

1.2 The main functions of management.

[4]In 1916, Henry Fayol provided a 'functional approach to management' in his book, "Industrial and General Management." Fayol listed out managerial functions as planning, organizing, commanding, coordinating and controlling. In 1930s Luther Gullick coined the functions of management in one word – **POSDCORB** – Planning, Organizing, Staffing, Directing, Coordinating, Reporting and Budgeting.

Diagram: 1.1 Functions of Management
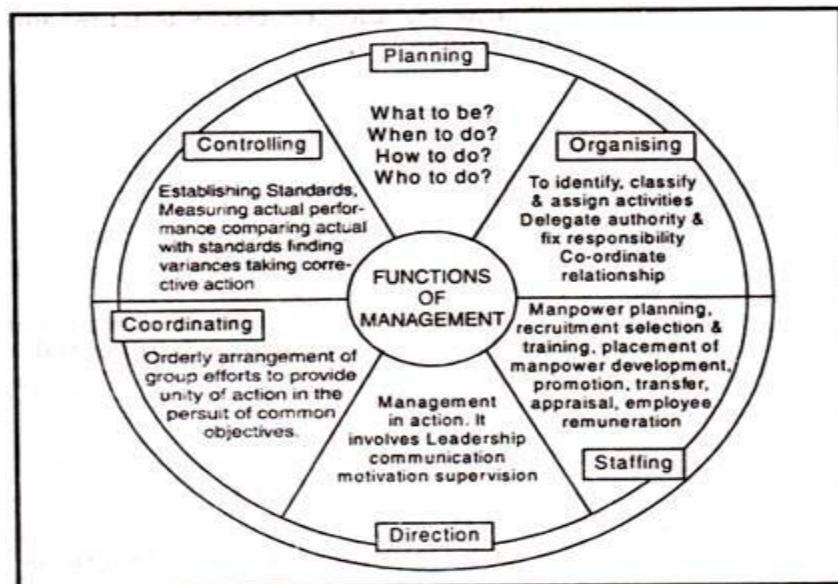
(Source: Secondary Data)

The important functions of management are briefly explained as follows:

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[4]Rao, P. Subba, Personnel and HRM, Himalaya Publishing House, (P-04)

1. **PLANNING**: - James Stoner states, "Planning is a process of establishing goals and a suitable course of action for achieving those goals."*The main steps in planning are stated as follows.*

- Analyzing the internal environment to identify strength and weakness of the organization.

- Analyzing the external environment to identify opportunities and threats.

- Setting of clear and realistic goals.

- Framing alternative plans.

- Studying / evaluating the alternatives plans.

- Selection of the best suitable plan(s).

- Implementation of the plan(s)

- Review of the plan(s)

2. **ORGANISING:** - Louis Allen states – "Organizing is a process of identifying and grouping of the work to be performed, defining and delegating authority and responsibility, and establishing relationship to accomplish objectives."

The main steps in organizing are stated as follows.

- Determining goals of the organization.

- Identifying the activities to be performed to achieve goals.

- Grouping of the related activities into departments.

- Making arrangement of resources.

- Defining authority and responsibility.

- Delegating authority to managers.

- Establishing superior-subordinate relationships.

3. **STAFFING:** - It is an important element of organizing. Since staffing is very vital, it needs to be given proper focus. A major aspect of staffing is to find out the right person for the right job. It also involves :

- Placing the right person at right job.

- Performance appraisal.

- Promotion and transfer.

- Training and development.

- Motivating and rewarding the employees.

4. **DECISION MAKING**: - It is the essence of management. Every function of management involves decision making. James Stoner defines decision making as, "the process of identifying and selecting a course of action to solve a specific problem."

The main steps in decision making are stated as follows.

- Defining the problem or situation.

- Framing alternative solutions.

- Evaluating alternative solutions.

- Selection of the best alternative.

- Implementation of alternative.

- Review of performance.

5. **DIRECTING**: - The plans may be the best ones, the activities may be systematically organized, the staff may be highly efficient, but the organization will not succeed if there is no proper direction.

Directing involves not only instructing people what to do, but also ensuring that they know what is expected of them. The manager should help, motivate and guide his subordinates. Most of all, directing involves development of high morale of the subordinates.

Directing involves three sub-functions:

- **Communicating**: It involves transfer of messages from one person to another. Effective communication takes place only when the message is clearly understood and a proper feedback is received or proper action is taken.

- **Leading:** Leading is an act of influencing subordinates to work willingly towards the attainment of desired objectives.

- **Motivating**: The manager should motivate his subordinates by providing incentives so that they work with dedication and commitment to achieve goals of the organization.

6. **CONTROLLING:**- In the words James Stoner, " Controlling is the process of ensuring that actual activities conform to the planned activities." In controlling, the manager monitors actual performance, and takes corrective measures, if required.

Controlling involves the following steps:

- Setting of standards or targets.

- Implementation of tasks.

- Measuring actual performance.

- Comparing actual performance with plans or targets.

- Finding out causes of deviations if any.

- Listing out various corrective measures.

- Selecting the appropriate corrective measures.

- Implementation and review of corrective measures.

7. **COORDINATION:** It refers to integration of activities or actions of the subordinates by the superiors. There is a need for coordination at all levels.
   - Top level coordinates the activities of the middle level.
   Example: Top level coordinates the planning and controlling activities of middle managers.
   - The middle level coordinates the activities of the lower level.
   Example: Production manager coordinates activities of factory supervisors at different shifts or units.
   - The lower level managers coordinate the activities of the subordinates. Example: Factory supervisor coordinates activities of machine operators.

8. **OTHER FUNCTIONS**: Management experts like Luther Gullick state other functions such as reporting and budgeting. Reporting and budging are in fact, important elements of planning and controlling.

For instance, report need to be prepared for the purpose of planning and for controlling. Also, budgeting is an important tool of planning. Budgeting also helps to control activities, because a manager can compare actual performance against budget estimates and accordingly take corrective measures.

1.3 Human Resources.

Human Resource is the active factor of production. Management has been defined by Mary Parker Follett as, "the art of getting things done through people," But it is felt that management is much more than what is said in this definition. Management is further defined as "… that field of human behavior in which managers plan, organize staff, direct and control human physical and financial resources in an organized effort, to achieve desire individual and group objectives with optimum efficiency and effectiveness." It is clear from this definition that management is concerned with the accomplishment of objectives by utilizing physical and financial resources through the efforts of human resources. Thus human resources are a crucial sub-system in the process of management.

Management skills mean the ability to make business decisions and lead subordinate within a company. In modern business the job management has become very difficult. Several skills are requires to manage successfully a large organization in a dynamic environment. These skills of managers have been classified into four categories, namely technical, human, diagnostic and conceptual skills.

A) *Technical Skills*: -

Technical skills refer to the ability and knowledge in using the equipment, technique and procedures involved in performing specific tasks. These skills require specialized knowledge and proficiency in the machines of particular job. Ability in programming and operating computer is, for instance, a technical skill. There are two things a manager should understand about technical skills. In the first place, he must know which skills should be employed in his particular enterprise and be familiar enough with their potentiality to ask discerning questions of his technical advisors. Secondly a manager must understand both the role of each skill employed and interrelations between the skills.

B) Human Skills:-

Human skills consist of the ability to work effectively with other people both as individual and as members of a group. These are required to win cooperation of others and to build effective work teams. Such skills require a sense of feeling for others and capacity to look at things from others point of view. Human skills are reflected in the way a manager perceives his superiors, subordinates and peers. An awareness of the importance of human skills should be part of a

manager's orientation and such skills should be developed throughout the career. While technical skills involve mastery of "things" human skills are concerned with understanding of "people".

C) Conceptual skills:-

Conceptual skills comprise the ability to see the whole organization and the interrelationships between its parts. These skills refer to the ability to visualize the entire picture or to consider a situation in its totality. Such skills help the manager to conceptualize the environment, to analyze the forces working in a situation and take a broad and farsighted view of the organization. Conceptual skills also include the competence to understand a problem in all its aspects and to use original thinking in solving the problem. Such competence is necessary for rational decision – making.

[5]Thus technical skills deal with jobs, human with person and conceptual skills with ideas. These types of skills are interrelated. But the proportion or relative significance of these skills varies with the level of management as shown in the following diagram.

Diagram: 1.2. Managerial Skills
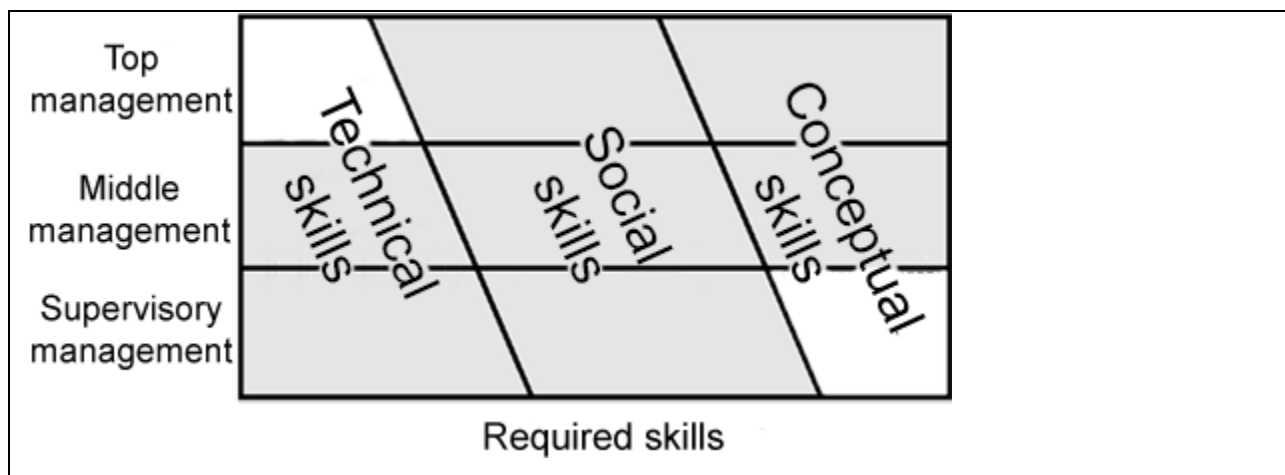
(Source : Secondary Data)

Technical skills are most important at the supervisory or operating level where a close understanding of job techniques is necessary to guide workers. As one moves up the management hierarchy, technical skills become less important. Higher level manager's deal with subordinate managers and specialized technical knowledge is comparatively less importance for

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[5]*Sherlekar S.A., Management (Value-Oriented Approach),Himalaya Publishing House, Mumbai.(P-10)*

them. Conceptual skills are very important for top management in formulating long-range plans, making broad policy decisions, and relating the business enterprise to its industry and the economy. Thus the relative importance of conceptual skills increases as we move to higher levels of management. This would be self evident as management is the process of getting things done through people. Human skills are equally important at all levels of management because every manager has to deal with people.

D) Diagnostic skills:-

Diagnostic skills include the ability to determine by analysis and examination the nature and circumstances of particular conditions. It is not only the ability to specify why something happened but also the ability to develop certain possible outcomes. It is the ability to cut through unimportant aspect and quickly get the heart of the problem. Diagnostic skills are probably the most difficult ones to develop because they require the proper blend of analytic ability with common sense and intelligence to be effective.

In a general way, Human resources are the people and their characteristics at work either at national level or organizational level. From the national point of view , human resources are knowledge, skills, creative abilities, attitude and other attributes obtained in the population whereas form the viewpoint of an organization , they represent the total of the inherent abilities, acquired knowledge, and skills as exemplified in the talent and aptitude of its employees. Human resource is also termed as human capital though sometimes a difference, though thin, is made   between the two. From this point of view, human resource is simply human potential with infinite capabilities and capacities with the possibilities of beneficial engagement. It may be noted that potentials are not always in use. Human capital consist of well employed human resources that is actively engaged in meaningful, worthwhile wok and delivering some level of desire productivity. However, in practice, such a distribution is not made and human capital is defined as "stock of skills and knowledge embodied in the ability to perform work so as to produce economic value. It is the skills and knowledge gained by a worker through education and training."

Since an organization performs a number of functions to achieve its objectives, It requires human resources of different types which may be categorized on the basis of functional areas like

production , marketing, finance, etc. or organizational hierarchy or the levels at which these resources are put. Thus human resources across the functional areas may be arranged into op management, middle management, Supervisory management and operatives.

1.4. Significance of Human Resources.

Human Resources are one of the most vital assets of the organization. It is the people who make other resources moving, they perform various activities in different functional areas like production, Marketing, finance, etc. The significance of human resources in as modern organization can be seen in the context of activation of non-human resources, means for developing competitive advantage, and source creative energy.

1. **Activation of Non-human Resources**: - Human resources handle all physical and financial resources in an organization. Without their efforts, these non- human resources idle. In fact, all the activities of an organization are initiated and determined by the person who makes up that organization. All the financial and physical resources that an organization uses are unproductive except the human efforts. The failure of any organization depends on how effectively these are used.

2. **Means for Developing Competitive Advantage**: - Competitive advantage exists when there is match between the distinctive competencies of an organization and the factors critical for success within its industry that permits the organization o outperforms competitors. Human resources can be used as a means for developing competitive which may be in the form of lower cost of production , development of product for special needs, special means for making the products, developing means for special sources for funds, etc. Since all these are done by human resources, they can be geared to achieve all these. In his context, Ghoshal has observed as follows: "A growing number of managers in India and abroad have begun to recognize that the fundamental basis of competition has to change. The scarce resource, and the primary source of competitive advantage, is no longer physical or financial capital, but human capital. As large asset-based companies like TISCO see the market value of pygmies like Infosys soar past theirs, the notion of competing through people has been transformed from a fashionable and politically correct statement to a serious cause for concern.

3. **Source of Creative Energy**: - In today's dynamic world, creativity is vital to every organization. Creative thinking is the process of bringing a problem before one's mind clearly by imagining, visualizing, supposing, musing, contemplating, or the like, and then originating an idea, concept, realization, or picture along new unconventional lines, people in the organization are the only source of such creativity. They can produce unlimited ideas. There is no apparent limit to what people can accomplish when they are motivated to use their potential to create new and better ideas. No other source in the organization can do that

In other to make effective utilization of human resources, they have to be managed appropriately. Human Resource management, as a field of study, makes an attempt o provide knowledge, skills, and attitude for managing human resources more effectively.

1.5. Introduction to Human Resource Management

Human Resource Management is a process of managing human resources to improve individual, group and organizational effectiveness. HRM consists of various elements such as human resource planning, recruitment and selection, training, motivation, performance appraisal, promotions / transfer and career development of human resources.

Human Resource Management (HRM) may be defined as a set of policies, Practices and Programs designed to maximize both personal and organizational goals. It is the process binding and organization together so that the objectives of each are achieved.

1.6. Definitions by eminent Management Authors

In the words of *David De Cenzo and Stephen Robbins*, "Human resource Management is concerned with the people dimension in management. Since every organization is made up of people , acquiring their services, developing their skills, motivating them to higher level of performance and ensuring that they continue to maintain their commitment to the organization are essential to achieving organizational objectives."

According to *Flippo* human resource management is "the planning organizing , directing, and controlling, of the procurement, development , compensation , integration, maintenance and reproduction of human resources of the end that individual, organizational and societal objectives are accomplished."

According to *Invancevich and Glueck*, " HRM is concerned most effective use of people to achieve organizational and individual goals. It is a way of managing people at work, so that they give their best to the organizations".

According to *fisher:* "Human Resource Management involves all management decisions and practices that directly affect or influence the people, or human resources, who work for the organization". Human resource management is a 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 its goals.

As defined by story (1995): Human Resource Management which seeks to obtain competitive advantage through the strategic deployment of highly committed and skilled work force, using an array of cultural, structural& personnel techniques. There is a specific set of HRM Policies which are best practice and which lead to high levels of employee performance. This encompasses items such as team work, flexibility, quality and organizational commitment.

According to *National Institute of Personnel Management of India*, "Human resources management is that part of management concerned with people at work and with their relationship within the organization. It seeks to bring together men and women who make up an enterprise, enabling each to make his own best contribution to its success both as an individual and as a member of a working group"

1.7. The Nature and features of HRM can be briefly described as follows.

1. **HRM is a process: HRM is a process of four main functions** :
- The acquisition function includes human resource planning, recruitment and selection of employees.
- The development function is concerned with training and development of employees.
- The motivation function includes providing recognition and rewards to the employees.

- The maintenance function is concerned with providing good working conditions, welfare facilities, etc.

2. **Focus on objectives**: HRM places emphasis on the accomplishment of objectives. The objectives can be broadly listed under four categories:

(a) Individual or personal objectives of the employees.

(b) Group or departmental objectives.

(c) Organizational objectives.

(d) Societal objectives.

3. **Universal Application:** - HRM is applicable not only to business organization, but also to any other type of organization. Acquiring and maintaining good people is critical to the success of every organization, where profit or non-profit, public or private.

4. **Continuous in Nature**: - HRM is a continuous activity. Organizations need to manage human resources on a continuous basis. This is because of growing expectations of the employees. Also there are constant changes in the environment. Therefore, there is a need for the organizations to adapt to environment changes.

5. **Integrated Use of Subsystems:** HRM involves the integrated use of subsystems such as training and development, career development, organizational development, performance appraisal, potential appraisal, etc. Emphasis needs to be placed in all possible areas so that individual, group, and organizational effectiveness is enhanced.

6. **Multidisciplinary Approach: -** HRM is dynamic and multidisciplinary approach. It draws upon education, management science, psychology, communication, economics, organizational behavior, philosophy and sociology. Since HRM aims at improving individual, group and organizational effectiveness, it involves the use of various disciplines of social sciences.

7. **Key Element in Coping with problems**: - Economic, technological and social trends have created acute problems for business and industry. As a result, management has focused attention on HRM as a key element in coping with these problems. This is because; such problems can be solved with the help of committed effects and competencies of human resources.

8. **Development of Team Spirit**: HRM aims at developing and maintaining team spirit in every organization unit .i.e. groups and department. Such team spirit is required so that the people work effectively together and contribute to the success of organization.

9. **Development of Employees Potentialities**: - HRM aims at development of employees potentialities to the maximum possible extent, so that they gain maximum satisfaction from their job. Employee's potentialities can be developed through effective training and development programs.

10. **Long–term Benefits**: - HRM brings long-term benefits to the individuals, organizational, and the society as well. Employees gain long-term benefits by way of better monetary and non- monetary incentives. The organization can gain by way of higher returns on investment, and better corporate image. The society can be benefited be way of better quality of goods and services.

1.8. The Scope of Human resource Management.

Human Resource Management is concerned with the human beings in an organisation. Human Resource approach of management to its own people would go a long way in effectively actuating. It facilitates in identifying the right kind of people, socializing them in properly, training and development them rightly, assigning the tasks which are best suited for every individual so as to bring out their best, motivating them to make their best contribution and creating conditions for the people to enjoy their work. It establishes and maintains an organizational philosophy, culture and climate conductive for the organization own people to have job satisfaction and a sense of fulfillment. As human resource development has a pivotal role in Human Resource Management, the organization gets the people it requires, while every individual gets the task which he can perform efficiently.

According to Michael V.P introduction to high–tech machineries and equipments, modernization of technology and techniques, computerization of data processing, introduction of micro – process controlled CNC machines in many manufacturing operation, introduction of quick communication systems, introduction of robots in repetitive manufacturing operations, sophistication in technical operations and such other developments have brought with it the need for well-trained technically qualified and highly skilled manpower. Human research

Management approaches not only helps procure such manpower but to retain their. All such development may result in redundant workforce which must either be retrained and redeployed or separated through golden handshake schemes. Human Resource management approach facilitates action in such situations.

Human Resource approach helps to improve the organizational efficiency work culture, job satisfaction of people, better understanding of human relationship resulting in cordial industrial relation and better productivity. The scope of Human resource Management is therefore, extensive to the extent that there cannot be a study of management without proper attention on human resource management.

Human Resources Management (HRM) approach helps to improve the organizational efficiency, work culture, Job satisfaction of people, better understanding and Human relationship resulting in cordial industrial relations and better productivity. While the management incorporates human resource policy supported by great human values, understanding, concern for the welfare of their people, and constant efforts for human development , there is possibility for the organization's people to reciprocate with better behaviour, self-co-ordination , sincerity, achievement motivation and greater co-operation. HRM has great scope to improve organizational climate and efficiency and efficiency.

The vast scope of HRM in the context of an industrial organisation can be briefly stated under.

1. Management would be able to understand their people better.
2. A Cordial worker- management relationship would be possible.
3. Management would be able to get great sense of accomplishment through their work.
4. A situation would be created in the organisation for the employees to enjoy their work and gain substantial job satisfaction.
5. Organizational efficiency and workers productivity would increase.
6. The employee would be able to get great sense of accomplishment through their work.
7. There would be good sense of fulfillment and accomplishment.
8. It would be employees to gain a sense of belonging to their work place.
9. A good HRM develops better organizational climate and culture.

10. The employee may be able to gain a self-confidence that their competence and performance can be improved and they would have prospects for better career growth, and to use their competence and talents.

11. As the people are respects s individual, and their contributions are valued and rewarded, there would be more self-confidence and self-respect, and people will learn to respect their superiors and managers.

12. There can be reduction in adverse influence of trade unions, particularly self- seeking militant trade union leaders.

13. Management gets enlightened workforce.

14. There would be increased in the influence level of management and managers.

15. Due to mutual Understanding and better co-ordination, a good communication channel would become possible.

16. It would become easier for the management to identify and train appropriate talents for every job.

17. Gap between the management and the workers can be reduced.

18. A good HRM policy would improve industrial peace, which is badly required in Indian now-a- days.

In fact, a well planned human resource management process is essential. It is helpful for the efficient management of business. Hence, the scope of HRM is extensive to the extent that there cannot be a study of management without proper attention on human resource management.

1.9. Human Resource Management Practices

Human Resource Management (**HRM**) is a planned approach to managing people effectively for performance. ... Good **HRM practices** are instrumental in helping achieve departmental objectives and enhance productivity.

HR practices are the means through which your **human resources** personnel can develop the leadership of your staff. This occurs through the **practice** of developing extensive training courses and motivational programs, such as devising systems to direct and assist management in performing ongoing performance appraisals.

Human Resource is the most important asset for any organization and it is the source of achieving competitive advantage. Managing human resources is very challenging as compared to managing technology or capital and for its effective management, organization requires effective HRM system. HRM system should be backed up by sound HRM practices. HRM practices refer to organizational activities directed at managing the pool of human resources and ensuring that the resources are employed towards the fulfillment of organizational goals

On the basis of literature review following criteria were selected for the purpose of study

1.9.1 Recruitment and Selection

[6]Recruitment is the discovering of potential applicants for actual or anticipated organizational vacancies. It is a 'linking activity' bringing together those with jobs seeking jobs. The objectives of recruitment include:

- Generate lot of interest in job-seekers possessing relevant qualifications.

- Project a highly favorable image of the company.

- Encourage large number of potential candidates to apply for possible vacancies.

- Create a wide choice – at an economical cost- for company so that it can pick up right candidates.

- Determine present and future needs of the organization in sync with its overall strategy and personnel planning.

- Give ample information to candidate so that they themselves can decide whether to apply or not (say for example, some advertisement might say, only candidate with first –class degree need apply). As rightly pointed out by Fisher , "recruitment follows HR planning and goes in hand with the selection process by which organization evaluate the suitability of the candidate for various jobs. Without successfully recruiting a sizable pool of candidates, even the most accurate selection system is of little use. The nature of firm's recruiting activities should be matched to its strategy and corporate values as well as to other important features such as the external labor market and the firm's ability to attract qualified candidates at a reasonable cost.

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[6]*Rao.P, Subba, Essentials of HRM and Industrial Relations (P-128,132), Himalaya Publishing, Pune.*

According to **Yoder,** "Recruitment is a process to discover the sources of manpower to meet the requirements of the staffing schedule and to employ effective measures for attracting that manpower in adequate numbers to facilitate effective selection of an efficient force."

According to **Filippo,** "It is a process of searching for prospective employees and stimulating and encouraging them to apply for jobs in an organization. It is often positive in that stimulates people to apply for jobs to increase the 'hiring ratio, 'i.e. the number of applicants for a job."

According to **Dessler**, "Employees recruitment means finding and / or attracting applicants for the employee's open positions."

According to **Fisher**," Recruitment is the process by which organization locates and attract individual to fill job vacancies."

According to **Mathis and Jackson**, "Recruiting is the process of generating a pool of qualified applicants for organizational jobs."

1.9.1.1. Factors affecting Recruitment.

Both internal and external factors affecting recruitment. The external factors include supply of and demand for human resources, unemployment opportunities and / or unemployment rate, labour market conditions, political, legal requirement and government policies, social factors, Information systems, etc.

The internal factors includes the companies brand which is determined by the pay package including salary, fringe benefits and incentives, quality of work life, organizational culture, career planning and growth opportunities, size of the company, company's product / services, geographical spread of the company's operations viz., local, national or global, company's growth rate, role, of trade unions and cost of recruitment.

The following diagram clears the situation of the current recruitment positions.

Diagram: 1.3.Current recruitment positions

(Source : Secondary Data)

FACTORS AFFECTING RECRUITMENT.

1.9..1.2. A) Internal Factors.

1.9..1.3 .B) External Factors

1.9..1.2. A) Internal Factors:-

1. Employees Brand.

2. Company's Pay package.

3. Quality of Work life.

4. Organizational Culture.

5. Career Planning and Growth.

6. Company's size.

7. Companies product / services.

8. Geographical spread of the Company's operations.

9. Company's Growth Rate.

10. Role of Trade Union.

11. Cost of Recruitment.

12. Company's name and fame.

1.9.1.3. B) External Factors.

1. Socio Economic Factor.
2. Supply and demand Factor.
3. Labor Market Condition.
4. Employment Rate.
5. Political, Legal, Governmental, factors like Reservation and son-of –soil.
6. Information system like Employment Exchange / Tele Recruit like Internet.

1.9.1.(A). SELECTION:

[7] Human Resource planning identifies employment need. Job analysis determines the qualifications required and recruiting provides a pool of applicants for selection. Selection is the process of picking individuals possessing relevant qualifications, requisite knowledge and required experience. The most suitable candidate is being chosen from out of those who apply for the position based on certain criteria. Selection is much more than just choosing the best candidate. It is an attempt to strike a happy balance between what the applicant can and wants to do and what the organization actually requires. The whole process needs to be looked at seriously and the personnel manager is not supposed to leave anything to chance here. To this end, he must carefully follow the steps outlined hereunder.

- Find the need of the job.

- Match applicants profile with job need.

- Do not leave anything to chance.

- Poor selection could prove to be costly affair.

- It is Easy to shut the Door on poor performers.

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[7]Weihrich Heinz ,Koontz Harold, Management (A Global Perspective), Tata McGraw-Hill, Publishing Company New Delhi.(P-289)

- Keep the expectations of Employees in Mind.

- Legal intervention may spoil the show.

- So, get the right Candidate – Burning your candle Energies – at any cost.

- Selection could prove to be a source of competitive advantage.

1.9.1.(B) . DIFFERENCE BETWEEN RECRUITMENT AND SELECTION.

At this stage, it is worthwhile to understand difference between recruitment and selection as both these terms are often used together or sometimes interchangeably. For example, when we talk about recruitment policy of a company, sometimes, it includes selection too. Though in practice, such usage may not affect the human resource acquisition process; such a distinction should be made in order to have better focus on these two processes. Difference between recruitment and selection has been described by Filippo as follows:

Table:1.1. Difference between Recruitment and Selection.

Recruitment	**Selection.**
1. Meaning: It is a process of searching for prospective employees and stimulating them to apply for job.	It is a process of choosing the most suitable candidate from those who apply for job.
2. Steps Involved: It normally involves - Job Analysis. - Determining sources. - Advertising job.	It involves a series of steps. - Initial Screening. - Application of Tests. - Conducting Interviews. - Medical / References Check. - Selection Decision. -
3. Major Factor: Advertising the job is a major factor.	The final selection decision is a major factor.

4.Order: Recruitment precedes selection.	Selection follows recruitment.
5. Purpose: The purpose of recruitment is to attract as much as possible.	The purpose of selection is to select the most suitable candidate and rejecting others.
6. Staff / Line Function: Recruitment is done by the personnel department, so it is a staff function.	Selection is done by the department concerned or the top department and it is a line function.
7. Time required: Recruitment requires less time as it normally involves advertising the job.	Selection is a lengthy process and as such time consumed is quite more
8. Help from Expert: It is a simple process and normally does not require help from experts.	It is complicated process and normally experts are required to conduct tests and interviews.
9. Cost Factors: Recruitment normally is not expensive except that it involves advertising the job.	Selection is quite expensive as money is spent on testing and conducting interviews.
10. Subjective / Objective: Recruitment is more objective in nature	Selection is subjective as there may be favoritism, and bias in selection.

(Source: Secondary Data)

Selection is the most crucial stage in the process of acquiring human resources in an organization. After building the application pool, the next step is the selection of the personnel whom can fit the overall job requirement in the light of job description, role analysis and job specification.

1.9.1.(C) CONCEPT OF SELECTION

Selection can be conceptualized in terms of either choosing the fit candidate, or reject the unfit candidate, or a combination of both. Selection involves both because it picks up the fit and rejects the unfit. In fact, in Indian context, there are more candidates who are rejected than those who are selected in most of the selection process. Therefore, sometimes it is called a negative process in contrast a positive programme of recruitment. For example, Yoder has viewed that hiring (selection) process is of one or many go or no-go gauges. Candidates are screened by the application of these gauges. Qualified applicants go on to the next hurdle, while unqualified are eliminated. A more formal definition of selection is as follows:

"Selection is the process of differentiating between applicants in order to identify (and hire) those with a greater likelihood of success in job."

Selection process assumes and rightly so, that there are more number of candidates available than the number of candidates actually selected. These candidates are made available through recruitment process.

Selection is a process of choosing right person for the right job. The selection process consists of a series of steps or techniques as follows.

1. Job analysis
2. advertising the job
3. initial screening
4. application bank
5. Tests
6. Interviews
7. Reference Check
8. Medical Check
9. Final interview
10. Job offer.

Diagram: 1.**4. Selection Procedure.**

Fig. 5.6   Steps Involved in Selection Procedure
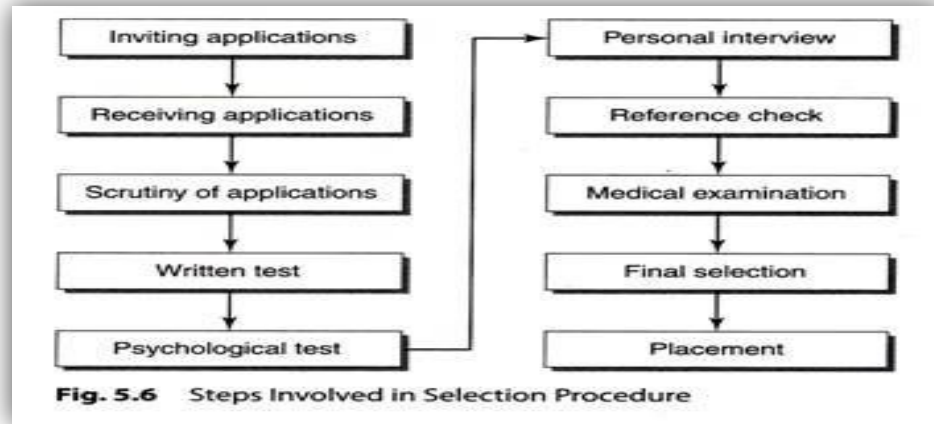
(Source : Secondary Data)

1.9.1.(D) TYPES OF TESTS

Employment testing is the practice of administering written, oral or other tests as a means of determining the suitability or desirability of a job applicant. The premise is that if scores on a test correlate with job performance, then it is economically useful for the employer to select employees based on scores from that test.

Tests are classified into FIVE types. They are

A) Aptitude Tests:- These tests measures whether an individual has the capacity or latent ability to learn a given job if given adequate training. Aptitudes can be divided into general and mental ability or intelligence and specific aptitude such as mechanical, clerical, manipulative capacity etc.

The following sub-tests are included under this test:

a) Intelligence Tests.

b) Mechanical Aptitude Tests.

c) Psychomotor Tests.

d) Clerical Aptitude Tests.

B) Achievement Tests: - These tests are conducted when applicants claim to know something as these tests are concerned with what one has accomplished. These tests are more useful to measure the value of specific achievement when an organization wishes to employ experienced candidate.   These tests are classified into two categories:

a) Job Knowledge Test.

b) Work Knowledge Test.

C) Situational Test:-This test evaluates a candidate in a similar real life situation. In this test the candidate is asked either to cope with the situation or solve critical situation of the job.

These tests are classified into two categories:

a) Group Discussion.
b) In Basket.
D) Interest Test: - These tests are inventories of the likes and dislikes of candidates in relation to work, job, occupations, hobbies, and recreational activities. The purpose of this test is to find out whether a candidate is interested or disinterested in the job for which he is a candidate and find out in which area of the job range / occupation the candidate is interested. The assumption of this test is that there is a high correlation between the interest of a candidate in a job and job success. Interest inventories are less faked and they may not fluctuate after the age of 30.

E) Personality Tests: - These tests provide clues to an individual value system, his emotional reactions and maturity and characteristics mood. They are expressed in such traits like self-confidence, tact, emotional control, optimism, decisiveness, sociability, impulsiveness, sympathy, and stability and self-confidence.

These tests are classified into two categories:

a) Thematic Apperception Test (TAT)

b) Ink-Bold Test.

F) OTHER TESTS;

a) Cognitive Ability Tests.

b) Wechsler Adult Intelligence Scale.

c) Wonder Personnel Test.

d) Polygraph Tests.

e) Honesty Tests.

1.9.2. TRAINING AND DEVELOPMENT

"Training his successor is the most important single job any manager or executive has. It is also the most satisfying."   *-- George H. Coppers.*

1.9.2.1. Concept of Training and Development.

[8]Training and development play an important role in the effectiveness of organizations and to the experiences of people in work. Training has implications for productivity, health and safety at work and personal development. All organizations employing people need to train and develop their staff. Most organizations are cognizant of this requirement and invest effort and other resources in training and development. Such investment can take the form of employing specialist training and development staff and paying salaries to staff undergoing training and development. Investment in training and development entails obtaining and maintaining space and equipment. It also means that operational personnel, employed in the organization's main business functions, such as production, maintenance, sales, marketing and management support, must also direct their attention and effort from time to time towards supporting training development and delivery. This means they are required to give less attention to activities that are obviously more productive in terms of the organization's main business. However, investment in training and development is generally regarded as good management practice to maintain appropriate expertise now and in the future.

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[8] Singh Nirmal, Human Resource Management, Galgotia Publications Pvt. Ltd. Navi Delhi. (P-404)

1.9.2.2. TRAINING

Training is normally viewed as a shot term educational process by which non-managerial personnel acquire the technical knowledge and skills necessary for increased effectiveness in achieving organizational goals.

Training is an original procedure for increasing the knowledge and skill of people for a definite purpose. The purpose of training is to achieve a change in the behaviour of those being trained. In the industrial situation this means that the trainees will acquire new skills, technical knowledge, problems solving ability and attitude. Any good training programme lays down the procedure by which people gain knowledge and skill to perform their job effectively and efficiently.

Distinguishing between education and training is not easy, the two overlap each other. Training is concerned with increasing knowledge and skill in doing a particular job and the major burden of training falls upon the employer. But education is at time narrowly used to means the formal process of studying a syllabus of work which usually involves attendance of an education institution.

Training usually has a more immediate purpose than education. Actually, the distinction between training and education is not precise because in many cases both training and education occur at the same time. Some employee development programmes in industry which is quite wider in scope may be viewed as education. Particularly, where the emphasis is given on off-the-job training the objectives of the training is to increase the knowledge and understanding of the employees regarding business and general environmental.

Definitions of Terms.

Very often, we come across the following terms: training, development and education. These terms are defined by authors in different manners. Some of these are given below.

A) Education:-

"Education is the understanding and interpretation of knowledge."-- Memoria.

"Education is concerned with increasing the general knowledge and understanding of the employees, total environment." -- Tripathy.

B) Training

" Training consists of planned programs undertaken to improve employees' knowledge, skills, attitude, and social behaviour so that the performance of the organization improves considerably" *-- Wayne Casco*

"Training is a short term process utilizing a systematic and organized procedure by which non-managerial personnel learn technical knowledge and skill." *-- Steinmez.*

"Training refers only to instruction in technical and mechanical operations. Training courses are typically for short term stated purpose" *-- Campbell.*

"Training is the art of increasing the knowledge and skill of an employee for doing a particular job."*-- Tripathi.*

"Training is a learning process which seeks a relatively permanent change in behaviour that occurs as a result of experience."*-- S.P. Robbins.*

"Training involves changes of skills, knowledge, attitude, or social behaviour."

-- David de Cenzo and S.P. Robbins.

1.9.2.3. Development.

[9]"Development covers not only those activities which improve job performance, but also those which bring about growth of personality, help individuals in the progress towards maturity and actualization of their potential capabilities, so that they become not only good employees but also better men and women."*- Memoria.*

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[9] Singh Nirmal, Human Resource Management, Galgotia Publications Pvt. Ltd. Navi Delhi. (P-405)

"Development is an inclusive process where both managers and individual employees are involved. It offers opportunities to learn skills, but also an environment designed to discovering and cultivating basic attitude and capabilities and facilitates personal growth." *-- Yoder.*

"Development is viewed as a long term learning process by which managerial personnel acquire conceptual and theoretical knowledge and skills for enhancing general administration abilities."

Table :1.2. Distinguish between Training and Development.

Training	Development.
1**. Meaning:** It refers to learning process of the employees.	It refers to learning process of managers.
2. **Management / Operative Personnel:** Training is normally directed at operative employees and related to technical aspects.	It is directed at managerial personnel to acquire conceptual knowledge.
3. **Specific / General**: Training is more specific job related information.	It is general in nature, especially at top management level.
4**. Methods:** More emphasis on the on-the-job methods.	More emphasis in nature, on the off-the-job method.
5. **Cost involved:** Imparting training is less expensive.	Development is more expensive.
6. **Frequency:** Less frequent. Mostly at induction and at every change in job.	More frequent and continuous in nature.
7. **Who Imparts:** Training is imparted mostly by the supervisors.	Development is undertaken by superiors, outside experts.
8**. Theoretical / Practical Aspects**: Emphasis is placed on practical or technical aspects of work.	Emphasis is placed on conceptual and theoretical aspects.

(Source: Primary Data)

1.9.2.4.TRAINING AND DEVELOPMENT : A COMPARISON

Training and Development differ from each other in terms of their objectives and consequently in terms of their contents. Training is a short term process utilizing a systematic and organized procedure by which non- managerial personnel learn technical knowledge and skills for a definite purpose. Development is a long term educational process utilizing a systematic and organized procedure by which managerial personnel learn conceptual and theoretical knowledge for general purpose.

   Based on the above description, the difference between training and development can be made in terms of four Ws: Why is learning? What is the learning? Why does such learning take place? When does learning take place as shown in below table?

Training and development: A comparison.

Table: 1.3. Training and development: A comparison

Learning Dimension.	Training	Development.
Who?	Non-Managerial personnel	Managerial personnel.
What?	Technical and Mechanical	Conceptual ideas.
Why?	For Specific Job	For a variety of Jobs.
When?	Short - term	Long – term.

   Training and Development may be seen in the context of a continuum in which training content proceeds in continuity rather than in discrete form because an individual proceeds in his job hierarchy and what he has learned a particular job is transferred to another job because of transfer of learning. The transferability of this learning is more when two jobs have some kind of relationship in terms use of skills'

…… More clearly, training and development may be understood as any attempt to improve current or future employee performance by increasing an employee's ability to perform through learning, usually by changing the employee's attitude or increasing his or her skills and

knowledge. The need for training and development is determined by the employee's performance deficiency, computed as follows:

> Training and Development   need = Standard performance - Actual Performance.

1.9.3. Performance Evaluation / Appraisal

"Most people want feedback as long, of course, as it mirrors their self-perception. When it does, they tend to like it. When it doesn't, they don't."

-- Larry Cipolla, Management Professor.

Performance Appraisal is a process of evaluating work performance of the personnel so as facilitate individual and organizational effectiveness. Performance appraisal is also referred as merit, rating, employee rating, and service rating.

Definitions:-

"Performance appraisal is the systematic description of an employee's job relevant strength and weaknesses."*-- Wayne Cascio.*

"Performance appraisal is the process of assessing Qualitative and quantity aspect of an employee's job performance."   *-MichealCrino*

[10]In simple terms performance appraisal / Evaluation may be understood as the assessment of an individual's performance in a systematic way , the performance being measured against such factors as job knowledge , quality of output initiative , leadership abilities , supervision , dependability, co-operation, judgment, versatility, health and the like . Assessment should not be conformed to past performance alone. Potential of the employees for future performance must also be assessed.

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[10]*Towers, Brian, Handbook of HRM, Beacon Books, (p-212)*

The other terms used for performance appraisal are: performance rating, employee assessment, employee performance review, personnel appraisal, performance evaluation, employee evaluation and (perhaps, the oldest of the term used) merit rating. In a formal sense, employee assessment is as old as the concept of management, and in a formal sense, it is probably as old as mankind. No performance appraisal is done in isolation. It is linked to job analysis.

Job analysis sets out requirement, which are translated into performance standards, which in turn form the basis for performance appraisal.

Performance management refers to the entire process of appraising performances, giving feedback to the employees, and offering rewards or punishment to them.

The main purposes of Employees assessment are:

- To effect promotions based on competence and performance.

- To conform the services of probationary employees upon their completing the probationary period satisfactorily.

- To assess the training and development needs of Employees.

- To decide upon a pay raise where (as in unorganized sector) regular pay scales have not been fixed.

- To let the employees know where they stand insofar as their performance is concerned and to assist them with constructive criticism and guidance for the purpose of their development.

- To improve communication. Performance appraisals provide a format for dialogue between the superior and the subordinate, and improve understanding of personal goal and concerns.

- Finally, performance appraisal can be used to determine whether HR programmes such as selection, training, and transfer have been effective or not.

Broadly, performance appraisal serves four objectives:

I.   Developmental use.
II.   Administrative Uses / decisions.
III.   Organizational maintenance / Objectives. And
IV.   Documentation Purpose.

The following table more clearly states the application and purpose performance appraisal:

Table: 1.4.Multiple Purposes of Performance Assessment.

General Application	Specific Purpose
Developmental use	Identification of individual needs. Performance feedback. Determining transfer and Job Assignment Identification of Individual Strength and developmental needs.
Administrative Uses / decisions	Salary Promotion. Retention or termination. Recognition of individual performance Lay –offs Identification of poor performance.
Organizational maintenance / Objectives.	HR Planning Determining organizational training needs. Evaluation of organizational goal achievement. Information for goal identification. Evaluation of HR systems. Reinforcement of organizational development needs.
Organizational maintenance / Objectives.	Criteria for validation research Documentation for HR decisions Helping to meet legal requirements.

(Source : secondary Data)

Some Industries use the traditional or modern methods. The following is the difference between both methods of performance appraisal.

Table: 1.5.[11]**Methods of performance appraisal.**

Traditional Method	Modern Method.
1. Ranking method 2. Paired method. 3. Grading. 4. Force distribution method. 5. Force Choice method. 6. Checklist method. 7. Critical incidents method. 8. Graphic Scale Method. 9. Essay method. 10. Field review method. 11. Self-Appraisal.	1. Appraisal by results or objectives. 2. Behavioral anchored rating scales. 3. Assessment centers 4. 360- Degree appraisal. 5. Cost accounting Method.

(Source: secondary Data)

1.9.3.1.Performance Appraisal Process.

Performance appraisal process can be undertaken either on informal basis or on formal and systematic basis. In Comparatively smaller organization, appraisal, either based on traits or performance or a combination of both, is done informally through the observation of concerned employees. In larger organization, appraisal has to be more systematic and formal as it reveals various types of information which can have a variety of purposes as discussed earlier. A systematic performance appraisal goes through different steps as shown below.

1. Defining Objectives of Appraisal
2. Defining appraisal norms.
3. Designing appraisal programmes.
4. Implementing appraisal Programme.

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[11]Khanka. S.S., Human Resource Management (Text and Cases) S .Chanda Publishing,(349)

5. Appraisal Feedback.

6. Post-appraisal actions.

1.9.3.2. Summary.

1. Performance appraisal is a systematic review and evaluation of an individual or teams' job performance.

2. Appraisal data is very helpful in numerous HR functional areas including HR planning, recruitment, selection, training, and employee development and compensation programmes.

3. The performance appraisal process involves establishment of performance standards, communicating the same to employees, measuring the actual performance against standards, and take corrective action of required.

4. The methods of appraising employee performance may be broadly classified into two categories: traditional and Modern.

5. Most organizations nowadays feel that the 360 degree appraisal method is only appropriate for developmental purposes.

6. To be useful, appraisal has to be carried out in an objective manner, following an acceptable criteria established for this purpose. It is important to offer training to raters, so that they carry out the appraisal unemotionally. Both employee traits and behaviours need to be looked into seriously in order to carry out performance appraisal process in a systematic manner. The appraisal could be carried out at selected intervals.

7. The most important problems that could stand in the way of putting the appraisal process in place would include: lack of objectivity, bias, leniency, central tendency, recent behaviour bias, stereotyping, etc.

8. A good appraisal system should measure important job characteristics (relevancy), be free from contaminating influences, and cover all key aspects of job. It should be reliable and avoid rating errors of all kinds. More important, appraisal system must be fair to women, minorities and other protected groups. Of course, appraisal must also be practical.

1.9.4. Communication.

Meaning:

[12]Communication is a process by which all forms of information is transferred from one person to the other. So, for the communication to take place there must be some information to be conveyed and there must be two or more persons – one to deliver the message and other to receive it. Communication is said to be perfect only when the receiver understand it in the sense the sender expect him to understand.

Some definitions about Communication:

"Communication as the transfer of information and understanding from person to person"

-- Dale S. Beach

"Communication is a process of meaningful interaction among human beings. More specifically it is the process by which meanings perceived and understanding are reached among human beings"*-- McFarland*

"Communication as a process involving the transmission and accurate replication of ideas reinforced by feedback purporting to stimulate actions to accomplish organizational goals."

-- Scott and others.

"Communication is interactive by words, letter symbols or message and is a way that one organization member shares meaning and understanding with another."

-- Herald Koontz and Cyril O'Donnell.

"Communication is the sum of all the things one person does when he wants to create understanding in the mind of another. It involves a systematic and continuous process of telling, listing and understating." *-- Louis A. Allen.*

"Communication is the broad field of human interchange of facts and opinion and not to technologies of telephone, telegraph, radio and the like."

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[12]*Michael, V.P., HRM and Human Relations, Himalaya Publishing,(P-321)*

1.9.4.1. Purpose of Communication in HRM.

The purpose of communication in human resource management include:

- Communication is needed to exchange ideas, opinion, information etc. with the colleagues, superiors, subordinates, customers, public etc.

- Communication is needed for designing jobs and human resource planning.

- Employee orientation and socialization programmes became possible mostly through communication.

- Recruitment and selection functions are performed through communication by persuading the prospective employees to apply for a job, knowing the skills and knowledge of the prospective employees.

- Employee's performance is evaluated by getting information, opinions and rating from the superiors, subordinates, and employers'.

- Almost all the process of training and executive development is carried out through the communication process. In fact most of the training and development are done through teaching and learning processes.

- Employees ventilate their grievances to their superior through communication. Superiors also redress the employee grievances and deal with the disciplinary cases through communication.

- Collective bargaining process is mostly carried out through communication process of exchanging the demand, offering proposals and counter offering etc.

- Participative management is successful through effective communication process.

1.9.4.2. [13]TYPES OF COMMUNICATION

The following are the types of communication:

A) On the basis of Expression

B) On the basis of Organizational structure.

C) On the basis of Direction.

A) On the basis of Expression

    1. Verbal or oral communication

    2. Written communication

    3. Formal communication.

    4. Informal communication.

C) On the basis of Direction.

    1. Upward Communication.

    2. Downward Communication.

    3. Horizontal Communication.

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[13]*Aswathappa, K., Human Resource Management (Text and Cases) , Tata McGraw Hill Education Pvt. Ltd., Navi Delhi.(P-490)*

Diagram: 1.5. Communication in Culture.
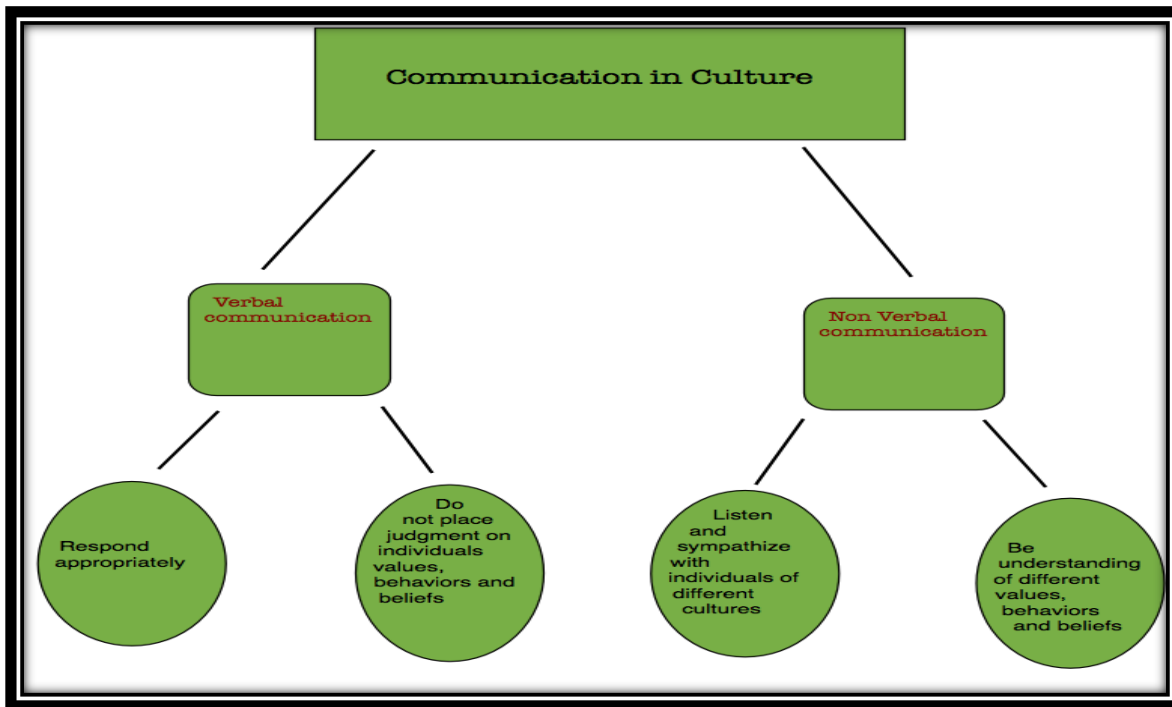
(Source: Secondary Data)

1.9.4.3. SIGNIFICANCE.

[14] Effective communication is important for managers in organization to perform their basic functions of planning, organizing, leading, and controlling. The process of communication makes it possible for managers to carry out their tasks and responsibilities. Information must be communicated to managers so that they will have a basis for planning- the plans must be communicated to other in order to be carried out. Organizing requires communicating with others about their job assignments. Leading requires managers to communicate with subordinates so group goals can be achieved. Written and oral communications are essential part of controlling. Managers can carry out their management functions only by interacting and communicating with others. The communication process is, thus the foundation upon which management functions depend.

[14]Mamoria. C.B., Gankar. S.V., Personnel Management(Text and Cases) , Himalaya Publishing, Pune, (P-650)

Managers, in general spend as much as 37.5. Hours communicating per week. Thus a large share of managerial time is devoted to the activity of communication. Rarely are managers alone at their desks thinking, planning or contemplating alternatives. In fact managerial time is spend largely in face to face or telephonic communication with subordinates, peers ,supervisors, subordinates, suppliers, or customers. When not conferring with others in person or on the telephones, manager may be writing or dictating memos, letters or reports sent to them. Even in few periods when managers are alone, they are frequently interrupted by communication. The time spent by managers on communication, and the attention it receives from them, speak about the importance of communication.

For organization to function successfully, effective communication is basic requisite. Interpersonal, intergroup and intergroup communications are essential for information to flow, ideas to generate, and feelings to be exchanged

What communication does for an organization resemble what the bloodstream does for an organism? The communication system supplies the entire units-department, people of the organization – with information. Deprived of oxygen, the cells malfunction and die. Deprived of the necessary information, individuals and departments within the organization malfunction, which can certainly lead to a sort of terminal ineffectiveness for them and for the organization as a whole.

Communication is significant as it serves four major functions within a group or organization – control, motivation, emotional expression and information.

Communication helps control member behaviour in more than one way. Organizations have authority, hierarchies and formal guidelines that employees are required to follow. When employee, for instance, are required first to communicate any job-related grievances to their boss, to follow their job description, or to comply with company policies, communication performs a control function.

Communication foster motivation by clarifying to employees what is to be done, how well are they doing? What can be done to improve performance if it is below standard?

For many employees, their work group is primary source for social interaction. The communication that takes place within the group is a fundamental mechanism by which member shows their frustration and feelings of satisfaction. Communication therefore, provides a lease for the emotional expression of feelings and for fulfillment of social needs.

Communication provides information to individuals and members for making a decision and for identifying and evaluating alternative choices.

Communication can play a major role in changing people's attitude. It is said that a common approach in molding or changing an employee's attitude is to supply information on the object or issues towards which attitude are directed. Company magazines, bulletin boards, pamphlets, meetings, educational programmes, newspapers advertising, and many other forms of written and verbal communication, formal and informal in character, are useful for this purpose. Underlying their use is the belief that communication is a powerful factor in molding attitudes- that well-informed individuals will have sounder attitude than those who are ill-informed.

Communication is the essence of social behaviour. In every-day living, the mere presence of another person encourages communication. It is a universal human propensity that you cannot disagree with it.

Most important, communication plays an important role in knowledge management, particularly, in minimizing the" silos of knowledge" problem that undermines an organizations potential. This relates to the increased importance of communication in decision – making. As organizational environments become more complex, decision- making need information from many people to perceive problem, recognize new product ideas and identify merging customers need. Cannon, the Japanese optics and electronics firm, recognized this through its emphasis on "heart–to-heart and mind-to-mind communication," This corporate philosophy encourages employees worldwide to share information on customer and product so that they can make more informed choices about corporate actions. British Telecom does the same thing. By encouraging ongoing communication, employees create "knowledge moments" – instances where shared knowledge results in better decisions.

As a part of knowledge management, APTECH, the Indian Computer Education firm, has been developing and implementing a company–wide Enterprise Information System (EIS). EIS

extends across the entire network of over 1200 centers in 30 countries and covers every element of its training operations, from centers automation to academics to quality administration to online delivery of education to complete integration into the SAP-ERP system that are used for accounting , logistics and distribution . This is an arduous but an exciting system journey which has demanded a revisiting of many processes, budgetary controls and the entire materials managements process of requisitioning , ordering ,printing and supply from central stores to regional and country offices to each education center and finally into the hands of the quarter million students in APTECH.

What specific implications communication has to HR managers? Senior HR executives need to communicate with several stakeholders such as investor, customers, line mangers, employees and HR professionals.

- With investors, Communication focuses on how intangible becomes a determining factor in the creation of sustained market value.

- With customers communication focus on their needs and HR practices can be aligned with customer expectations, with a view to increasing market share. In addition to responding to customer feedback action may involve to engage customers in designing and delivering HR practices.

- With line managers, communication centers on delivering business strategies through prioritizing and creating organization capabilities. Actions follow ideas as the concept of capabilities translates into investment of budget, time, focus and energy.

- With employer's communication provides insight into an employee value creation. Actions may then be identified to ensure that employees have both the ability and the attitude to do what is expected of them.

- With HR professionals, communication helps HR leaders fulfill their roles and demonstrate the competencies that are required to deliver value.

The role of communication in knowledge management, explained above, also revolves around HR professionals, for it is these people who are actively involved in knowledge management.

1.9.5. GRIEVANC HANDLING/ REDRESSAL

> "Positive discipline does not replace reason but applies to the achievement of a common objective"   -- William R. Spiegel, Management Professor.

[15]A grievance is a sign of employee's discontent with job and its nature. The employee has got certain aspirations and expectations which he thinks must be fulfilled by the organization where he is working, when the organization fails to satisfy the employee needs, he develops a feeling of discontent or dissatisfaction. For instance, the employee expects proper implementation of the Central and State Government law, Collective agreements, company policies and management responsibilities. Any violation of these laws, agreements and policies cause dissatisfaction on his part. Thus, grievance is caused due to the difference between the employee expectation and management practice.

The concept 'Grievance' has been defined in several ways by different authorities. Some of the definitions are as follows:

"Grievance is any discontent or dissatisfaction, whether expressed or not, whether valid or not, arising out of anything connected with the company thinks, believes or even feels to be unfair, unjust and inequitable."

--   Michael Jucious

"Grievance is a written complaint filed by an employee and claiming unfair treatment."

-- Dale Yoder.

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[15]*Pardeshi P.C., Human Resources Management, Nirali Prakashan, Pune., (P-333)*

1.9.5.1. Causes of Grievances:

Grievances may arise out of anything connected with the company and work-related activities.

1. Wage Related Grievances:

a) The workers may feel less equity in wages i.e., he is underpaid as compared to other.

b) Low rate of incentives.

c) Mistakes in calculation of wages.

d) Delay in payment of wages and incentives.

e) Unfair deduction in wages and incentives.

f) Denial of rightful increment.

2. Working Conditions Related Grievances:

a) Defective lighting.

b) Poor ventilation.

c) Unhygienic sanitation facilities.

d) Noise, fumes, and other unpleasant or unsafe conditions.

3. Superior Related Grievances:

a) Autocratic nature of superior.

b) Poor instruction on the part of superior.

c) Favoritism on the part of superior.

d) Divide and rule policy of superior.

e) Poor canteen facilities,

f) Lack of freedom and lack of delegation of authority.

g) Rude or unethical behaviour of the superior.

4. Individual Advancement Related Grievances:

a) Errors in seniority list.

b) Vindictive transfers.

c) Denials of promotion.

d) Unjustified suspension or demotion.

e) Unfair lay-off.

f) Penalty for offences not committed.

5. Health and Safety Related Grievances:

a) Lack of safety facilities like helmet, gloves, and safety sign.

b) Poor maintenance of plant and machinery.

c) Use of defective or poor quality of electrical tools and equipment.

d) Lack of emphasis on safety training.

e) Non-availability of first – aid and other materials.

f) Lack of fencing of high voltage areas.

6. Collective Bargaining.

a) Non-recognition of legitimate trade union.

b) Non-implementation of agreements such as wage agreement, which were agreed by the management.

c) Non-compliance with the grievance procedure.

d) Victimization of employees belonging to a particular trade union.

Machinery for Redressal of Grievances:

[16] Every organization requires a permanent procedure for handling employee grievances. Grievances handling procedure is a formal process of setting grievances.

Diagram: 1.6. Grievance Procedure.
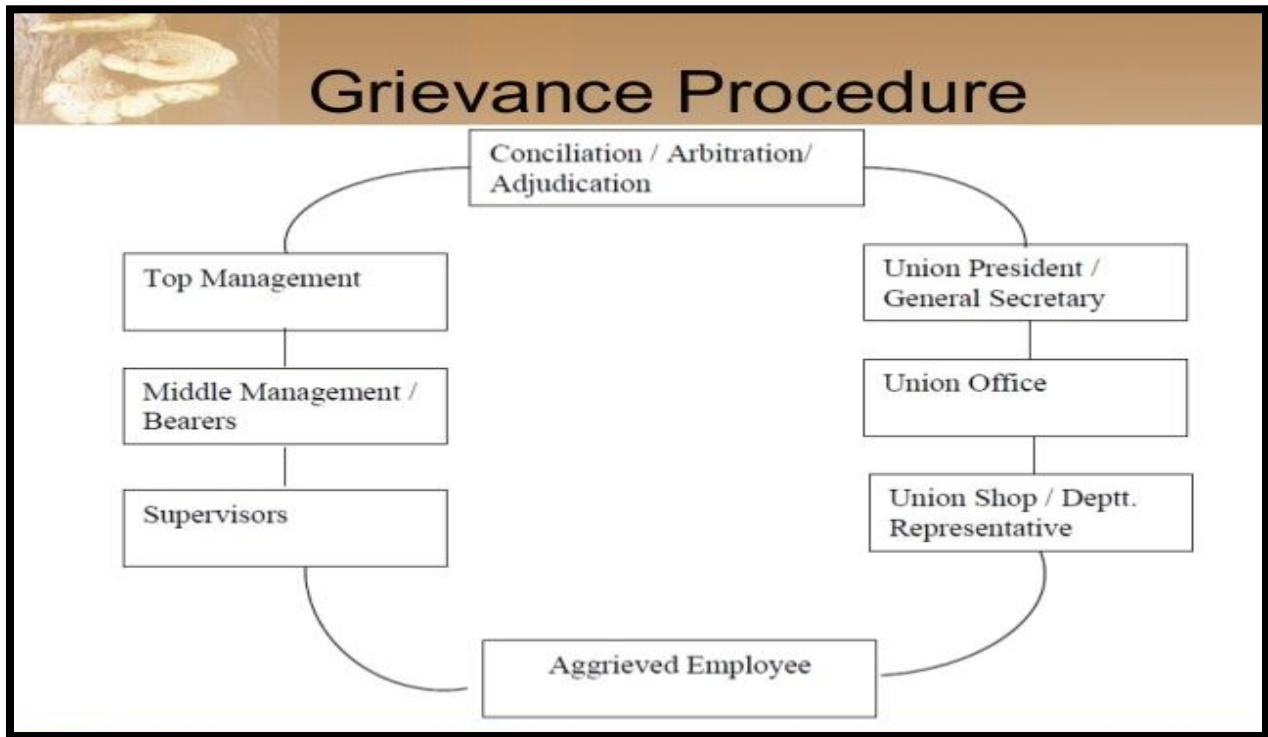
And it usually consists of a number of steps arranged in a hierarchy. The number of these steps may vary with the size of the organization. In small organizations, grievances procedure may consist of only two steps while in big organization there may be Five or Six stages / steps. A typical grievances procedure is shown in the study.

The front-line superior is given the first opportunity to handle grievance, if the company is unionized; a representative of the trade union also joins the superior in handling the

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[16]Gupta .C.B., Human Resource Management (P-178)

grievances. This step is essential for preventing the supervisor's authority. But all grievances cannot be settling here because they may be beyond the authority and competence of the supervisor. In the second step, the human resource office or some middle level executive along with a higher-level union officer attempt to tackle the grievances. In the third step, the top management and top union leader sit together to settle grievance involving companywide issues. If the grievance remains unsettled it is referred to an outside arbitrator for redressal.

Diagram: 1.7. Grievance Redressal System.
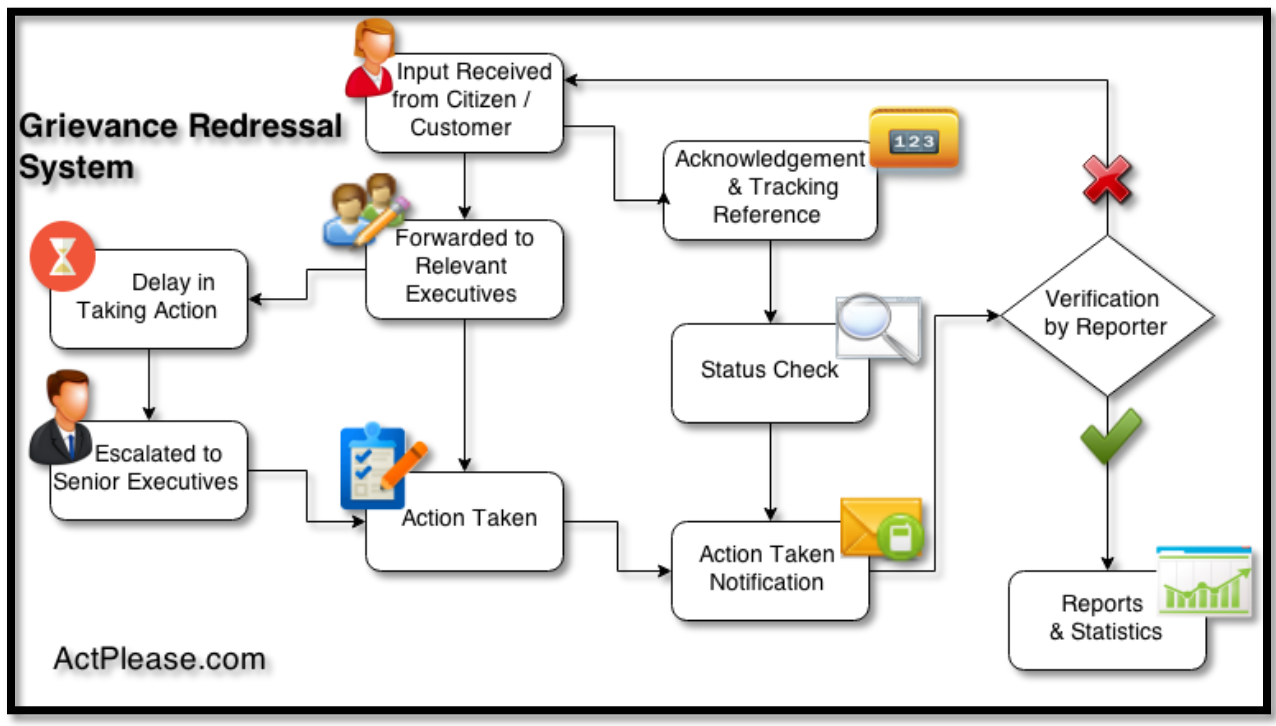
(Source: Secondary Data)

1.9.5.2. Grievance Procedure.

Generally, grievances handling procedure involves a six-stages procedure which is stated as follows.

Stage –I - - Resolving by Immediate superior.

The aggrieved employee presents his grievances to his immediate superior. The superior may take suitable action, if he is empowered to do so. If the superior is not empowered to take

appropriate action, he may take permission from higher authorities to take suitable action to redress, the grievance.

Normally, the grievances are to be redressed within 48 hours (2 days) of the presentation of the grievance. If the employee is satisfied with the action taken be the superior, the grievance is over. If he is not satisfied, he may resort to the second stage.

Stage -- II   -- Resolving by Senior Manager.

If the immediate superior fails to take appropriate decision to redress the grievance, the matter will be handed over to senior manager, who may be the departmental head or Chief Labor Officer. The senior manager / CLO looks into the grievances. After considering all the relevant details of the grievances, the senior manager / CLO may take suitable action to redress the grievance within 3 days of the presentation of the grievance. The employees may or may not be satisfied with the action taken.

Stage – III – Resolving by Grievance Committee.

If the senior manager /CLO fail to take suitable action to redress the grievance, the managers will then report to Grievances Committee (GC). The GC consists of representative of the workers union and the management. The GC member discusses   the problem and also reviews the decisions taken at the earlier stages.

The GC members make recommendations to the management to overcome the grievance, within a period of 7 days of the employee request. The final decision of the management is communicated to the employee within 3 days of the receipt of GCs recommendations.

Stage IV -- Appeal for Revision.

If the decision of the management is not communicated to the aggrieved employee within the stipulated period of 3 days, or if the management decision is unsatisfactory, the employee has the right to appeal to the management for revision. The management may review its decision and communicates its decision to the employee within the 7 days of the presentation of employees appeal for revision.

Stage - V -- Voluntary Arbitration.

If the employee is not satisfied with the revised decision of the management, the workers union and the management may refer the grievance to arbitrator for final decision. The arbitrator is appointed with mutual consultation between the management and workers union. Both the parties may agree that the decision of the arbitrator will be binding on both the parties – the management and the employee.

Stage VI – Final Decision.

The arbitrator goes through the grievance, and the decisions taken at the earlier stages. He will hold deliberation with the management and the workers union (or employee). Finally, the arbitrator gives his ruling, which is normally final and binding on both the parties.

1.9.6. WORKING CONDITIONS:

Working conditions includes the following **THREE** main sub parts:

A) Employees Safety and Security.

B) Employees Health.

C) Employee's welfare.

Accidents of various kinds occur in factories all over the globe with frustrating regularity. Workers die almost every second because of unsafe working conditions within the factory premises. The average cost of injury as per 2010 statistics amounts to $10.000 in dollar terms. Of course, a worker's life is not so precious in India. The figures are going to be miniscule in rupee terms. After 25 years waiting the Bhopal gas victims got only $800 per person while the Chief Executive of Union Carbide, Warren Anderson is having a joy ride in USA, enjoying all pension benefits at a leisurely pace (www.stwr.org 2010). According to Dr. Subhodh Medgekar, a road industrial accident investigator, "In the US, if one's life is lost, or five people are injured in an industrial accident – then it is very big deal. Companies pay huge insurance claims and damage. In India, life is cheap" (Rahul Wadke, Industrial Safety Aspect Not Getting High Priority, Business Line, June 12, 2008.)

1.9.6.1. Need Hierarchy Model:

Abraham Maslow identified safety and security as the second level needs (after physiological needs and before social needs) in the Need – Hierarchy Model. The safety and Security needs are important to almost all types of employees – whether management or non- management, whether permanent or temporary or casual. The safety and security needs create a sense of physical, mental, social, and economic well-being of individuals.

 The management of any organization must adopt safety and security management. It involves management of health and security measures to create a good work atmosphere in the organization.

Diagram: 1.8. Maslow's Hierarchy Model
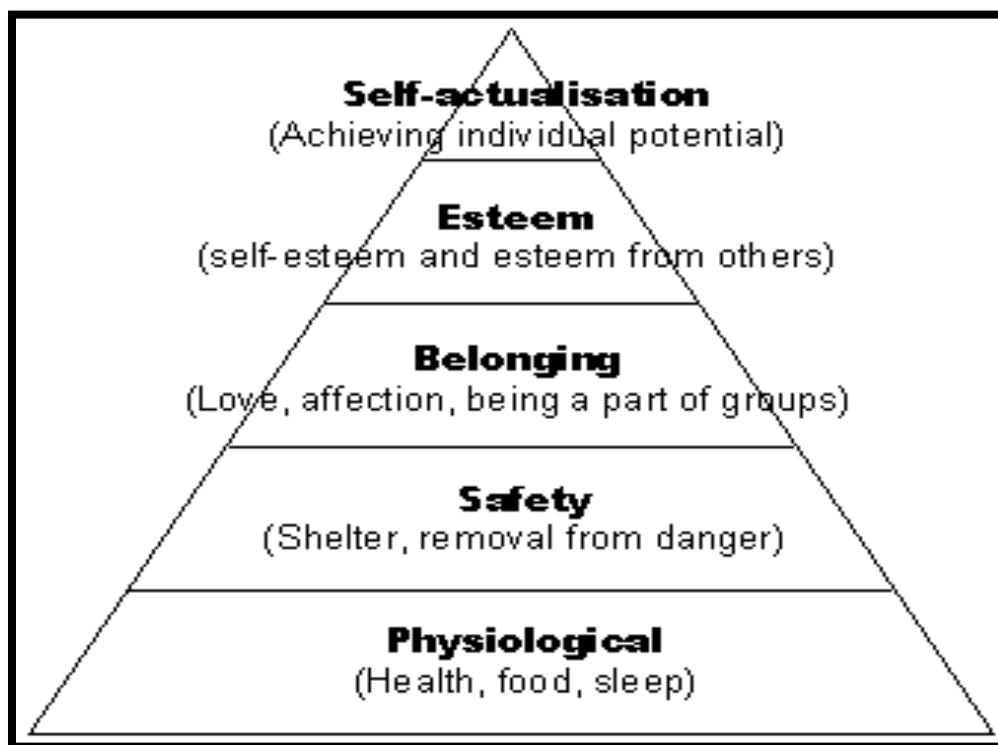
(Source Secondary Data)

1.9.6.2. SAFETY:

[17]Safety is primarily the responsibility of the management. This responsibility should rest on the shoulders of all cadres of management, such as plant Manager, Production manager, Chief Manager, Chief Engineer, Personnel, manager, Maintenance Engineer, Individual Foreman, Safety Officer or Director.

Every organization should formulate and implement a safety policy. The procedure to be adopted naturally depends upon the size of a company, the number of plants it operates, the nature of the industry in which bit is engaged, the production technology it uses, and the attitude of the top management. After it has spelt out safety policy, a company should establish a safety programme, the primary goals of which should be to reduce the number of hazardous factors which are likely to cause accidents, and to develop safe working habits among its employees.

1.9.6.3. HEALTH

The well-being of the employee in an industrial establishment is affected by accidents and by ill health-physical as well as mental. In this section, we shall discuss the need for health work and health services to be provided by the management to ensure the continuing good health of their employees.

We proposed to examine employees' health from the following angles-physical health, mental health, and noise control stress management, AIDS, alcoholism, drug abuse and violence in work place.

CII awards companies on the basis of their wellness programmes. L&T .ITC, Bhadrachalam. Tata Steel. HDFC Bank, Birla Cement, Apollo Hospitals are some of the recipients of the awards.

1.9.6.4. HEALTH MANAGEMENT.

Though good health is necessary for any individual and there are various methods for maintaining good health. It has received added attention in the case of industrial workers because

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[17]Sarma A.M., Aspects of Labor Welfare and Social Security, Himalaya Publishing House, Mumbai, (P-83)

they are prone to certain occupational diseases caused by inherent working conditions in some specific occupations. Therefore, management of health (also known as industrial health) is a pre-requisite for workers efficiency. According to the Joint ILO-WHO committee, organizational health is:

1. The prevention and maintenance of physical, mental and social well-being in all occupations.

2. Prevention among workers of all ill health caused by the working conditions.

3. Protection of workers in their employment from risks resulting from factors adverse to health and

4. Placing and maintenance of the worker in an occupational environment adapted to his physical and psychological equipment. Thus, industrial health is concerned with preventing the disease rather curing the disease. Industrial Health is required:

1. To maintain and improve productivity and quality of work.

2. To improve employee motivation and morale.

3. To reduce spoilage and cost of operations.

4. To reduce industrial unrest, indiscipline, and accidents, and

5. To control absenteeism and turnover.

1.9.6.5. Measuring Health and Safety performance.

The saying that 'if you can't measure it you can't manage it' is totally applicable to health and safety. It is essential to know what is happening and it is even more essential to measure trends as a means of identifying in good time where actions are necessary.

 The most common measures are:

- **The frequency rate**:

$$\frac{\text{Number of injuries} * 100\ 000}{\text{Number of hours worked.}}$$

- **The incidence rate**

$$\frac{\text{Number of injuries} *1000}{\text{Average number employed during the period.}}$$

- The Severity rate:-

The days lost through accidents or occupational health problems per 1000,000 hours worked.

Some organizations adopt a total loss control approach which covers the cost of accident to the business under such headings as per pay to people off work, damage to plant or equipment and loss of production. A cost severity rate can be calculated which is the total cost of accident per 1000,000 hours worked.

1.9.6.6. Safety Programme:

Safety program deals with the prevention of accidents and with minimizing the resulting loss and damage to persons and property. Five basic principles must govern the safety programme of an organization. These are:

1. Industrial accidents result from a multiplicity of factors, but these have to be traced to their root cause, which are usually faults in the management system arising from poor leadership from the top, inadequate supervision, insufficient attention to the safety design into the system, an unsystematic approach to the identification, analysis and elimination of hazards and poor training facilities.

2. The most important functions of safety programmes is to identify potential hazards, provide effective safety facilities and equipment and to take prompt remedial action.

3. The safety policies of the organization should be determined by the top management who must be continuously involved in monitoring safety performance and in ensuring that corrective action is taken when necessary.

4. Management and supervision must be made fully accountable for safety performance in the work place they control.

5. All employees should be given thorough training in safe method of work and should receive continuity education and guidance on eliminating accidents.

1.9.6.7. EMPLOYEE WELFARE   (Welfare and Recreational Facilities)

[18]According to the Oxford dictionary employee welfare or labor welfare mans "the efforts to make life worth living for workmen." In the word of Arthur James Todd, "Labour welfare means anything done for the comfort and improvement, intellectual or social, of the employee over and above the wage paid which is not a necessity of the industry."

  According to a I.L.O. report, "worker" welfare may be understood as include such service facilities and amenities which may be established, or in the vicinity of undertakings to perform their work in healthy and congenial surroundings and to avail of facilities which improve their health and bring high morale. The committee on Labor Welfare (1969) defined it as such services, facilities and amenities as adequate canteen, rest and recreation facilities, sanitary and medical facilities, including social security measures as contribute to improve the condition under which workers are employed." According to The Labor Investigation Committee (1946), Employee welfare means "anything done for intellectual; physical moral and economic betterment of the workers, by employers, by Government or by other agencies, over and above what is laid down by law or what is normally expected on the part of the contributed benefits for which workers may have bargained".

On the basis of these definitions, the following features of employees' welfare can be identified:

1. Employee welfare is a comprehensive term including various services, facilities and amenities provided to employees for their betterment.

2. Employee welfare is a dynamic concept varying from country to county and from region to region within same county. It is a flexible and ever-changing concept as new welfare measures are added to the existing measures from time to time.

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[18]Tripathi, Personnel Management and Industrial relations, Sultan Chan & Sons Educational Publisher, New Delhi.(P-327)

3. Welfare measures are in addition to regular wages and other economic benefits available to employees under legal provisions and collective bargaining.

4. Welfare measures may be provided not only by employers but by the government, trade unions and other agencies too.

5. The basic purpose of employee welfare is to improve the lot of the working class and hereby make a worker a good employee and happy citizen.

6. Employees welfare is an essential part of social welfare. It involves adjustment of an employee's work life and family life to the community or social life.

7. Welfare measures may be both voluntary and statutory. Voluntary measures are the result of paternalist and philanthropic feelings of employer. There may also be provided due to customs or traditions in the particular industry or region. Statutory measures are prescribed under labor laws.

8. Employee welfare measures are also known as benefits and services.

The following are the Welfare and Recreational Facilities / benefits:

- Dating allowance.
- Canteens.
- Consumer societies.
- Credit society
- Housing.
- Legal aid.
- Employee counseling.
- Welfare Organization.
- Holiday homes.
- Educational Facilities.
- Transportation / Conveyance.
- Parties and Picnics.
- Child care and.

- Miscellaneous. (Organizing games, sports, community service activities, Christmas gifts, Deewali, Pongal, Baudh Pournima and Pooja gifts, birthday gifts, leave allowance concession and productivity / performance awards, etc.)

1.9.7. RETIREMENT BENEFITS

[19]Industrial life generally breaks family system. The saving capacity of the employees is very low due to lower wages, high living cost and increasing aspirations of the employers and his family members. As such employers provide some benefits to the employees, after retirement and during old age, with a view to create feelings of security about the old age. These benefits are called old age and retirement benefits. These include:

1. Provided fund

2. Pension

3. Deposit liked insurance

4. Gratuity and

5. Medical / Health benefit.

1.9.7.[20]A) Provided fund: - This benefit is meant for economic welfare of the employees. The Employees Provided Fund, Family Pension Fund and Deposits Linked Insurance Act, 1952 provides for the institution of Provident Fund for employees in factories and establishment. Provident fund Scheme of the Act provides for monetary assistance to the employees and / or their dependents during post-retirement life. Thus, this facility is a security against social risk and this benefit enables the industrial workers to have better retired life. Employs in all factories under the Factories Act 1948 are covered by the Act. Both the employer contribute to the fund. The employee on attaining 15 years of membership is eligible for 100% of the contributions with interest to the employee on retirement or to the dependents of the employee, in case of death.

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[19] Dr. Pardeshi. P.C. , Human Resources Management., NiraliPrakashan, Pune., (303)
[20]Sarma, S.A., Aspect of Labor Welfare and Social Security, Himalaya Publishing, Pune, (P-324)

1.9.7. B) Pension

The Government of India introduced a schemer of Employees Pension Scheme for the purpose of providing Family Pension and Insurance benefits to the employees of various establishment to which the Act is applicable. The Act was amended in 1971 when Family Pension Fund was introduced in the Act. Both the employer and the employee contribute to this fund. The employer's contribution to the provident fund is 1.5 % of employee wage.

  Employee's Family pension Scheme 1971 provides for a Family Pension to the family of a deceased employee as per the following rates:

  This scheme allows for the payment of a lump sum amount of Rs. 4000 to an employee on his retirement as retirement benefit and a lump sum of Rs. 2000 in the event of death of an employee as life insurance benefit.

Table: 1.6. Employee Pension Rate.

Pay for the month	Rate.
*Rs. 800 or more	**2 % of the basic subject to a maximum of Rs. 150 as monthly pension
*More than Rs.200 but less than 800	**15% of the basic subject to a maximum of Rs. 96 and minimum of Rs. 60 as monthly pension.
*Rs. 200 or less.	**30 % of the basic subject to a maximum of Rs. 60 as monthly pension.

(Source: Ibid)

1.9.7. C) Deposit liked insurance

 Employees Deposit Linked Insurance Scheme was introduced in 1976 under the Provident Fund Act.1952. Under this scheme, if a member of the employees Provident Fund dies while in service, his dependent will be paid an additional amount equal to the average balance during the last three years in his account (The amount should not be less than Rs. 1000 at any point of time) Under the employees Deposited Linked Insurance Scheme 1976, the maximum amount of benefit payable under the deposit linked insurance is Rs.10, 000.

1.9.7. D) Gratuity: -This is another type of retirement benefit to be provided to an employee either on retirement or at the time of physical disability and to the dependent of the deceased employee Gratuity is a reward to an employee for his long service with his present employer.

1.9.7. E) Medical / Health benefit.

[21]This is the one of the most common and usually most expensive employee's benefits that an employer can provide to its employees. These range from the usual group medical health insurance coverage to reimbursement of pharmacy and outpatient bills. These is the gradual shift from the traditional all- expensive – paid patient indemnity health care to alternate method of risk or cost sharing like co-pay health insurance plans or high- deductible plans.

1.10. Human Resource Management in Chemical Industries in Navi Mumbai.

The importance of Human Resource Management is discussed as follows

    A) **Corporate / an Enterprise**

    B) **Professional**

    C) **Social and**

    D) National

A) Corporate / an Enterprise: -

    Human Resource management can help an enterprise in achieving its goal more efficiently and effectively in following ways:

1. Attracting and retaining the required talent through effective human resource planning, recruitment, selection, placement, orientation, compensation and promotion policies.
2. Developing the necessary skills and right attitudes among the employees through training development, performance appraisal etc.
3. Securing willing cooperation of employees through motivation, participation. Grievance handling etc.
4. Utilizing effective the available human resources.
5. Ensuring that the enterprise will have in future a team of competent and dedicated employees.

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[21] Punekar.S.D.,Deodhar.S.B.,Sankaran,Saraswathi,Labour Welfare, Trade Unionism and Industrial Relations, Himalaya Publishing House, Mumbai (P- 61)

B) Professional Significance:

Effective management of Human Resource helps to improve the quality of work life. It permits team work among employees by providing a healthy working environment. It contributes to professional growth in the following ways.

1. Providing maximum opportunities for personal development of each employee.
2. Maintaining healthy relationship among individuals, and different work groups.
3. Allocating work properly.

C) Social Significance:

Sound Human resource Management has a great significance for the society. It helps to enhance the dignity of labor in the following ways.

1. Providing suitable employment that provides social and psychological satisfaction to people.
2. Maintaining a balance between the jobs available and the jobseekers in terms of numbers, qualifications, needs and aptitudes.
3. Elimination waste of human resource through conservation of physical and mental health.

D) National Significance:

Human Resource management plays a vital role in the development of a nation. The effective exploitation and utilization of nation natural, physical and financial resources require an efficient and committed manpower. The level of development of a country depends primarily on the skills, attitudes and values of its human resources. Nations are underdeveloped because their people are underdeveloped. Effective management of human resource helps to spend up the process of economic growth which, In turn leads to higher standards of living and fuller employment.

Human resource management is the central subsystem of an organization as can be seen as below

Diagram: 1.9. HRM as Central Subsystem in all organization.
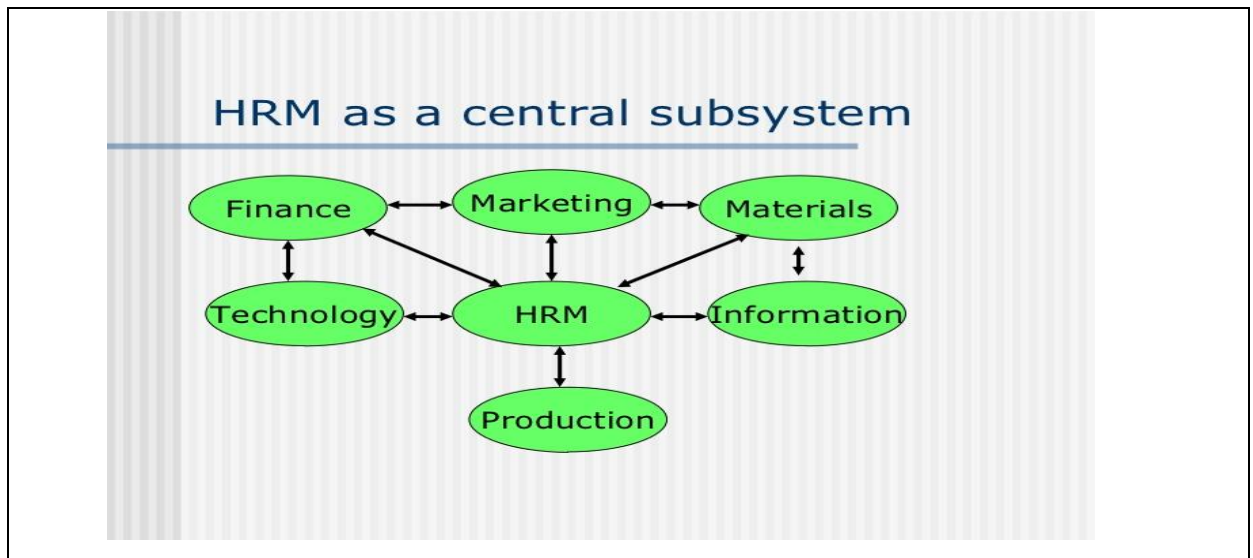
As the central subsystem, HRM interacts closely and continuously with all other subsystems of an organization. The quality of people in all subsystems depends largely upon the policies, programs and practices of the HRM subsystem. The quality of human resources determines in turn the success of an organization.

According to Lawrence Appley," Management is the development of people, not the direction of things." Human Resource Management has become very significant in recent decades due to following factors.

1. Increase in the size and complexity of organization, e.g. Multinational Corporation employing millions of persons, globalization of business.
2. Rapid technological development like automation, computerization, etc.
3. Rise of professional and knowledge workers.
4. Increase proportion of women in the works.
5. Growth of powerful nationwide trade unions.
6. Widening scope of legislation designed to protect the interests of the working class.
7. Revolution in information technology that might affect the work force.
8. Rapidly changing jobs and skills requires long – term man power planning.
9. Growing expectations of society form employers.
10. Rising costs and shortage of highly trained labor.

Table 1.7. Analysis of Questionnaires and HRM Practices

Sr. No.	HRM Practices	Question Nos.
1	Recruitment and Selection	1,2,3,4,5,6, 7,
2	Training and Development	8,9,10,11,20,22,37,54,55,62,64
3	Performance Appraisal	15,16,17,18,19,21,39,56,59,
4	Communication	14,33,38,45,46,48,51,53,57,58,61,63,
5	Working Conditions	23,34,35,36,40,41,43,47,52,60,
6	Retirement Benefits.	28,44,
7	Grievance Redressal	24,25,26,27,29,

Note: - Question Nos. 12, 30, 31, 32, 42, 49, and 50 asked different types. Such as HRM practices Organizations, received awards, Environment issues, action taken etc.

Table 1.8. Parameters used as per companies.

Sr No.	Name of the Industries	HRM Practices / Parameters						
		1	2	3	4	5	6	7
1	Amines and Plasticizes ltd.	√	√	√		√	√	√
2	Associated Chemicals	√	√	√	√	√	√	--
3	Bharat Mercantile Company	√	√	√	--	√	√	√
4	Bombay Ammonia Chemicals co.	√	√	√	√	√	√	√
5	CMP Pvt. Ltd.	√		√	√	√	√	--
6	Hebbar Chemicals P. Ltd.	√	√	√	√	√	--	√
7	Henkel Adhesive Technologies (i) Ltd.	√	√	√	√		√	√
8	Hindustan Platinum P. Ltd.	√	√	√	√	√	√	√
9	Indl. Minerals and Chem. Pvt. Co.P. ltd.	√	√	√	√	√	√	√
10	Lubrizol India Pvt. Ltd.	√	√	√	√	√	√	√
11	Mazda Colours Ltd	√	√	√	√	√	√	--
12	Mesuka Engineering Co. P. Ltd.	√	√	√	--	√	√	√
13	Metcon Coatings and Chemicals (p) Ltd.	√	√	√	√	√	--	√

Sr No.	Name of the Industries	HRM Practices / Parameters						
		1	2	3	4	5	6	7
15	Pfizer Ltd.	√	√	√	√	√	√	√
16	RPG Life Sciences Ltd.	√	√	√	√	√	√	√
17	Sara Chem. (I) P. Ltd.	√	√	√	√	√	√	√
18	Savita Oil Technologies ltd.	√	√	√	√	√	√	√
19	Tytan Organic P. Ltd.	√	√	√	√	√	√	√
20	Zydusnycomed Healthcare P. Ltd.	√	√	√	√	√	--	√

HRM Practices

1. Recruitment and Selection. 2. Training and Development. 3. Performance Appraisal.

4. Communication. 5. Working Conditions. 6. Retirement Benefits. 7. Grievance Redressal.

1.11. Profile of Chemical Industries.

Chemical industries alone contribute at an alarming rate in the production of different industrial products. The categories of chemical products are generally grouped into basic chemicals, special chemicals, fine chemicals, plastics and fibers, pharmaceuticals, paints and coatings etc. Chemical companies has employed nearly one million workers in USA including more than 90,000 scientists, chemists and engineers who work in research areas and functions, and they account for more than 2% of the total US gross domestic product and 12% of the manufacturing gross domestic products. The similar conditions are also visualized in the developing countries too, though not so high as developed countries but are taking part in the race.

The major products of chemical industries are basic chemicals, commodity chemicals to polymers and specialty chemicals. Basic chemicals or commodity chemicals are broad chemical category industry which includes polymers, bulk petrochemicals, intermediates, derivatives and basic industrial, inorganic chemicals and fertilizers or pesticides. (India Chem 2010). The chemical industry develops new products and manufacture variety of products for human lives. Many of the products such as perfumes, soaps and detergents, are purchased by the consumers directly; other industries and branches of chemical industry develop new innovative chemicals and byproducts by using 70% of chemicals manufactured. The chemical industry sector has

witnessed growth nearly about 13-14% in the last five years. In India chemical industries are also growing fast and are competitive in the global market. The major causes in growth of chemical industry in India are identified as under: (http://www.ficci.com/sector/7/Project_docs/Chemical-Petrochemical-sector.pdf)

• Increasing urbanization and demand for the products like paints, textiles, cosmetics, constructions etc. which supports the growth and also predicted 10-13% rise in future.

• Internal consumption of products is 33% average of output and likely to increase in future

• Diversified manufacturing base which supports to produce world class products
Export of chemical products 5.4% in dyes pigments, pharmaceutical products, agro-chemicals etc.

• Global competition is increasing, and import / export policies are simpler. Chemical Industries has been recognized as India's key growth area by the Government. Indian Government has permitted 100% FDI in chemical sector. Number of incentives and initiatives has been added in the 12th five-year plan (1912-1917), which boosts growth of chemical industries.

• Govt. wants to support chemical industries to develop bio-based products to reduce dependency on other countries and enhance export promotion.

    Due to these facilities more, chemical industries are collaborating with multinational companies and developing new competitive products for use.

1.12. Importance of Chemical Industries:

[22]Almost everything used in human life for the human survival is made up of chemical products. In the modern world Chemical industries play an important role. In every industrial process chemical products are involved which play an essential vital role. The Chemical industry is the one responsible industry for converting raw materials like natural gas, oil, water, air, minerals and metals in to more valuable products. The different chemicals used like basic chemicals which include fertilizers, petrochemicals, inorganic chemicals, reaction intermediates and

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[22] www.en.wikipedia.org/wiki/chemical_industry_chemical industries, and
 https://www.dnb.co.in/IndianTelecomIndustry/Chemical%20overview.asp)

polymers. For construction pipes, tools, appliances, electronic devices, toys, games, transportation, clothing and textiles, packing, and manufacturing many other products polymers and plastic are used. Crude oil or petroleum, Liquefied Petroleum Gas (LPG), natural gas raw materials are used to produce polymers, other organic chemicals and specialty Chemicals. (http://www.inquimica.com/chemical-industry-modern-life.html) More than 70,000 different products are manufactured through these industries.

Basic Industrial chemicals include explosives, resins, pigments, synthetic rubber, and rubber products. The oldest chemical categories belongs to Inorganic chemicals which include daily [23]products like soda ash, caustic soda, salt, acids like nitric, chlorine, sulfuric and phosphoric acids, and hydrogen peroxide, which are important for branches of chemical and other industries. Chemicals like phosphates, potash and ammonia are basic fertilizers which belong to a smaller category of chemicals used to make the soil more fertile for more production of agricultural products and growth of various plants. Biological substances and chemicals are used by life sciences for manufacturing animal health products, vitamins, pharmaceuticals and pesticides. As compared to other chemical sectors this industry produces the most expensive products which contribute a very small volume. Life science products are produced with detailed specifications and to have best quality. Before introducing a product in market a lot of investments are made in research and investigation. Government agencies keep a close eye and strictly scrutinize the chemical industry for any malfunctioning. [24]Specialty chemicals are of specific categories and covers very high valued chemical products which are rapidly growing today, innovative products which makes today's living better and safer includes adhesives, industrial gases, electronic chemicals and others. Finally, the consumer products like detergents, soap, and cosmetics are directly marketed to the customers. (http://www.inquimica.com/chemical-industry-modern-life.html)

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[23] http://www.inquimica.com/chemical-industry-modern-life.html.
[24]http://www.inquimica.com/chemical-industry-modern-life.html.,,
http://en.wikipedia.org/wiki/Chemical_industry,http://www.inquimica.com/chemical-industry.html
 and http://www.rsc.org/get-involved/importance-of-chemical-sciences/

Specialized finished products are transformed from raw materials by undergoing various chemical processes in the chemical plants. The chemical industry relies on the knowledge and investigations of the chemical properties of different materials.

Diagram: 1.10. End-User Segments of chemical Industries.
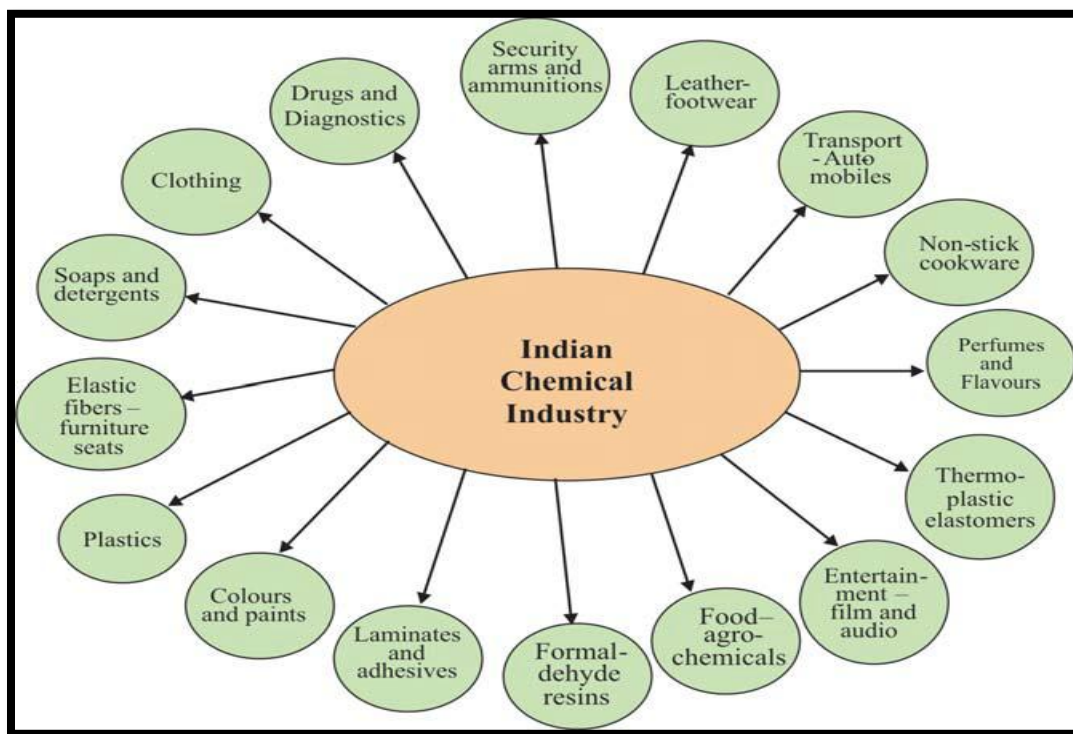
(**SOURCE:** Adapted from Report of the Task Force on Chemical Industry, Government of India, February 2002.)

1.13. Chemical Industries in Navi Mumbai.

Navi Mumbai is established by State Government of Maharashtra as a counter magnate to Mumbai with a view to stop influx of population in Mumbai. The location of Navi Mumbai was selected considering two major important aspects.

1. Existing Thane Belapur MIDC and

2. Upcoming port at NhavaSheva.

Maharashtra Industrial Development Corporation established an industrial estate at Thane Belapur Road, Rabale Industry, Navi Mumbai in 1963 which is often known as TTC MIDC Estate. The Estate is located along Thane Belapur Road towards Northern side of road and total area of the industrial estate is 27sq.kms. There are about 2200 industrial units of various category

engaged in the manufacture of chemicals, dyes, dye-intermediates, Bulk drugs, pharmaceuticals, Textile auxiliaries, Pesticides, Petrochemicals, Textile processors, Engineering units etc.

Diagram.1.11. Location map of NMMC and Industrial area
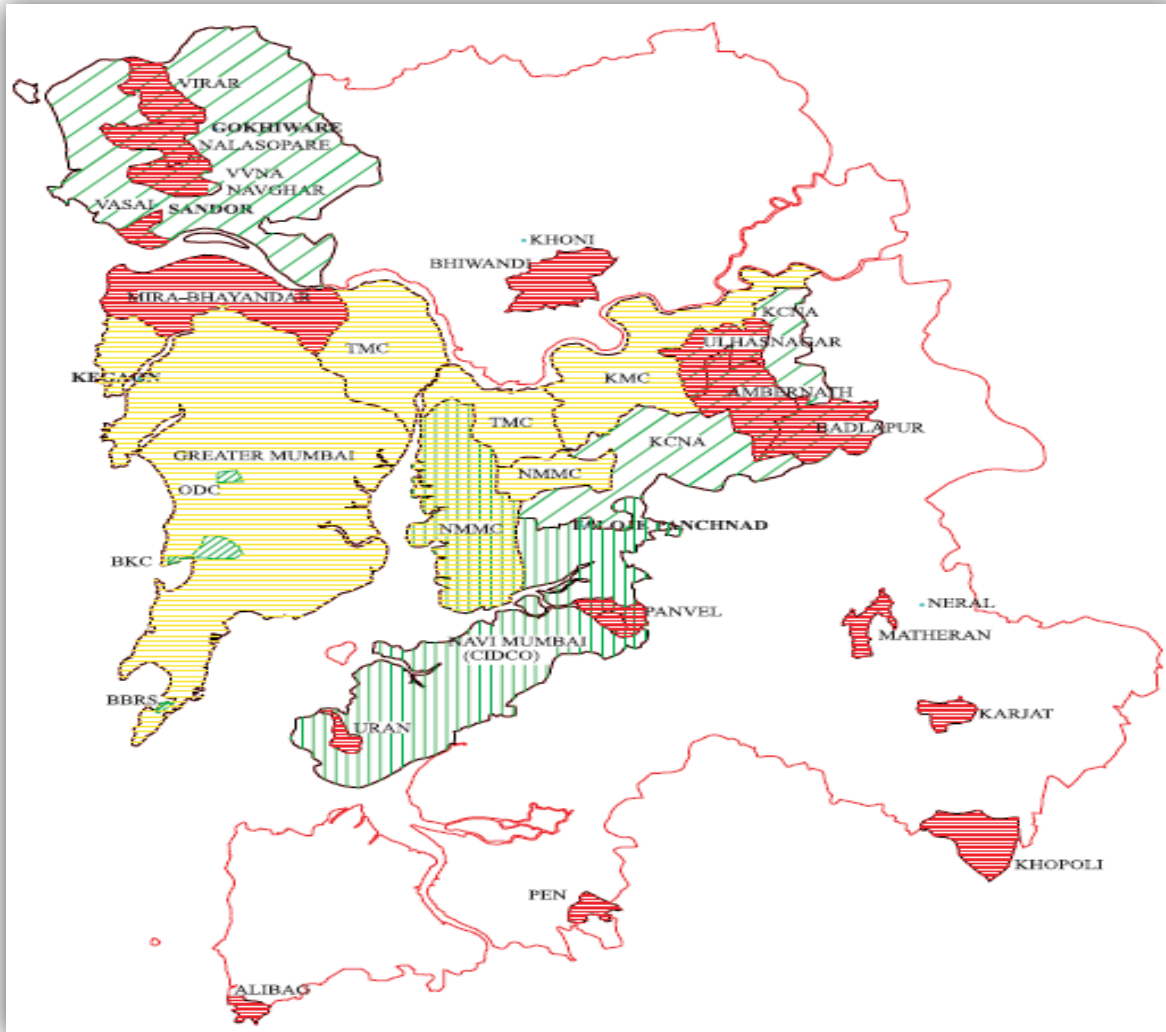
(Source: Secondary Data)

Industrial Areas in Navi Mumbai can be divided into Taloja Industries Area &Thane Belapur Industries Area. The Taloja Industries and the Thane Belapur Industrial Area have some of the most famous industries of India.

Taloja Industrial Area:

The Taloja Industrial Area consists of 277 Industrial Units all large, medium and small.

Location:

The Taloja Industrial Area is located in Taloja which is about 15km down the Panvel-Pune road.

Types of Industries:

All types of process industries including chemical, pharmaceutical, paper, plastic etc. are located here. Also existing are the engineering companies in this region.

Thane - Belapur Industrial Area (TBIA):

Around 391 Industries are located in the Thane Belapur Industrial Belt of Navi Mumbai. Of these 81 are DGTD (Director General of Trade and Development) Units, 101 Medium Units and 204 Small Scale Units. All types of Process and Engineering Companies are located in this belt. Industries in the Thane - Belapur Industrial Belt have formed an association called the Thane-Belapur Industrial Association to serve the interest of the TBIA industries. Since its establishment on the 15th of August, 1978 the Association has been acting as a representative of the Thane - Belapur Industrial Area.

Table 1.9. List of reputed chemical Industries in Navi Mumbai

Sr. No.	Name of the Chemical Company
1	Amines and Plasticizes ltd.
2	Associated Chemicals
3	Bharat Mercantile Company
4	Bombay Ammonia Chemicals co.
5	CMP Pvt. Ltd.
6	Hebbar Chemicals P. Ltd.
7	Henkel Adhesive Technologies (i) Ltd.
8	Hindustan Platinum P. Ltd.
9	Indl. Minerals and Chem. Pvt.Co.P. ltd.

Sr. No.	Name of the Chemical Company
10	Lubrizol India Pvt. Ltd.
11	Mazda Colours Ltd
12	Mesuka Engineering Co. P. Ltd.
13	Metcon Coatings and Chemicals (p) Ltd.
14	NOCIL
15	Pfizer Ltd.
16	RPG Life Sciences Ltd.
17	Sara Chem. (I) P. Ltd.
18	Savita Oil Technologies ltd.
19	Tytan Organic P. Ltd.
20	Zydusnycomed Healthcare P. Ltd.

(Source: Primary data)

1.14. Conclusion

In this chapter researcher had presented basic aspects of management, an effort was made to analyze different human research management practices. The chapter also provide a brief outline in respect of chemical industries in Navi Mumbai as well as Human resource Management Practices followed by the industries. Next chapter provide review of available literature by the researcher to identify gaps and decide scope of the study.

Literature Review.

2.1. **Introduction**

2.2. Books and References.

2.3. Journals and Periodical

2.4. Articles.

2.5. Websites.

2.6. Conclusion.

2.1 Introduction:

Review of the related literature is one of the first but most important steps in the research process. It consists of summary of problems to be investigated, objectives, hypotheses, data collection method, source of data and findings of research carried out in the past on chosen topic. This review provides insight to the research on what is already known and what remain to be investigated regarding the topic that is under consideration. It guides the researcher to avoid duplication and provides useful suggestion for further research of a given topic. It gives proper direction and research design. The review of literature is necessary due to the following reasons:

1. It helps to highlight the gap in the existing knowledge.
2. It helps in deciding the methodology, design, tools and techniques for the study.
3. It helps in limiting the problems and proper enquiry and defining if in an appropriate manner
4. It helps to know type of researcher like basic or applied research.
5. It gives recommendation for further researcher and topic of research.

2.2. BOOKS/ REFERENCES: -

1. **Armstrong, Michael**, A Hand book Of Human Resource Management, (8th Edition), (2001), Printed and Bounded in Great Britain by The Bath Press, Bath, Great Briton. In this book author focused on the Human Resource management clear explanation related to modern environment. Author also included the motivational factors and the theories of

motivation, Commitment skills and the impact of the communication skills in management and the impact on personnel at superior level. Also includes the Job and Role design-, HRM Policies, Knowledge management , Recruitment and selection procedure, Selection tests, Training types, and, Job Evaluation are effectively noted. Health and safety also focused in his book. Welfare services and HRM Procedures *are also pointed out.*

2. **Aswathappa K., Reddy Sudarsana. G.,** Business Environment for Strategic Management, Second Revised and Enlarged Edition, 2011, ISBN- 978-93-5051-104-6, Himalaya Publishing House. In this book author focused on four parts specially business environment, External sector, Business ethics, and Corporate Governance. Author point*ed* out Industrial Labour and the present situation in India, Industrial sickness, New Company Acts and new amendments, are focused.

3. **Aswathappa, K**. Human Resource management, (Text and Cases) (2011), *Tata McGraw- Hill Publishing Company Limited, New Delhi*. In this book author focused on the main factors of Human Resource management, the origin and the traditional and the modern management are focused. Also author includes Recruiting Human Resources, selecting Human Resources, Training development and Career Management-237, Appraisal and Managing Performance, Management Basic Remuneration, Managing Employee Benefits and Services, Motivation Perspectives, Empowering Employees, Communicating with employees, Industrial Relationship, Trade Union, Resolving Dispute, Managing ethical issues in Human resource Management, Evaluating Human resource, Management Effectiveness, Contemporary Issues in HRM, International Human Resource Management, The e-HR are added..

4. **Aswathappa, K.,** Essentials of Production Management, Himalaya Publishing House, Mumbai. 1998, ISBN- 81-7493-587-8, Manufacturing establishments seek competitive advantages through production functions. They believe that, being strong in competitive advantage, they are well poised to succeed whatever may be the constraints or restraints. Production functions can offer competitive edge to a firm in various ways; prominent among them being- shorter new product lead time, more inventory turns, higher quality, greater flexibility, reduced wastage and shorter manufacturing lead time. Because of its

vast potential, production function is gaining more prominence among all functional areas of management. Production management is obviously becoming a popular course of study at the manufacturing level and not only useful to superior but subordinates also.

5. **Burnett**, **Promotion Management**, (1999) AITBS, Publisher and Distributor (Regd.) Delhi-51. In this book author added the promotional activities related to management and specially focused on promotional activities.

6. **Burton Gene, Thakur Manab,** (1998) *Management Today, Introduction to management*(*Tata McGraw- Hill Publishing Company Limited, New Delhi*.) ISBN No-0-07-463110-1. The author studied the impact on centralised authority and Japanese method used in the management process. It is essential for an organisation to assess the effectiveness of management training from time to time to ensure that it is giving the optimum result while making perfect management arrangement.

7. **C.B.Mamoria and S.V.Gankar,** Personnel management (text and Cases) **(2008)** Himalaya Publishing House, Pune,1. During the last ten years vast changes have taken place in the economic conditions of India. It has also done away with the bureaucratic restrictive practices, controls on industry and business. The review of literature on the subject matter provided in the books shows that Human Resource management is increasingly getting integrated with the strategic management at corporate level. Human resource management in the corporate sector has assumed great importance. Human resource management has become a driving force in the success of an enterprise.

8. *Dale, Earnest, Management: Theory and Practices, 1978, International Student Edition, ,McGraw_ Hill International Book Company.* In this book author pointed out the growing impact of public opinion on business decisions and these trends has since that edition appeared given rise to new government regulations. The most important of which are explained in the text. Other trend noted earlier was the increasing use of computers and this trend not only continues but has taken new directions. A number of other developments are reported in this edition, and many new case stories and review questions are included.

9. *Davar, R.S., Personnel Management and Industrial Relations, 1988, Vikas Publishing House Pvt. Ltd, New Delhi.* In this reference / book includes modern concepts such as the managerial grid, T.A. and the more recent emphasis on the role of positive reinforcement, intrinsic motivation, security and self-determination, etc. in the field of motivation and leadership styles. Besides there has been a considerable change in the environment. Take the example of selection in case of managers; it is now necessary, in the new encouraging economic environment, for companies to remember that they have to be able to cope with rapid change. This has brought into prominence the need for adaptive corporation even in India. Throughout the Industrial age, technology exerted a strong pressure towards standardisation, in case of both output as well as the people who performed work. However, in the near future the company which knows how to de-standardize effectively will alone be able to beat its competitors. The adaptive Cooperation needs: Managers of adaption equipped with new, non –linear skills" who are experts not in bureaucracy but in the coordination of ad-hocracy.' They must adjust swiftly to immediate pressures and at the same time think in terms of long –range goals. Therefore, whilst selecting managers and other personnel, it has now become necessary for expanding and innovative and other companies in India to shift the emphasis to creative persons ready to change particularly at the higher levels in management. Such modern needs also find a place in the current edition.

10. **Davar, Rustom,S., Personnel Management and Industrial Relations,** (10th edition) 1976, Vikas Publishing House Pvt. Ltd, New Delhi. In this book author has pointed out the Personnel functions of HRM, Manpower Planning and proper provision of personnel. Author also focused on Job Changes, Promotions, Transfers, and Dislocations. Other thing is that author focused on modern Personnel management Thoughts. In this book Industrial relations and Industrial Disputes are added. The author includes in his book the Employee Communications and Performance Appraisals.

11. **Deshpande A.S., Principles of Management and Personnel Management,** Third Edition*, 1987*, Vora and Sons Publishers Private Limited Bombay-02, In this reference, author has focused on Management thought and Functions of different persons. Also includes modern and traditional thought. In modern Scientific Management the names of F.W. Taylors, Mary Parkers, Henri Fayol, Henry Gantt, Frank Bunker, Prof. Elton and

Douglas McGregor are included. In personnel management Industrial relations are added. In this part Recruitment and Selection procedures are added. Especially Industry level safety and hazards are focused in this chapter.

12. **Dr.Aswathappa, K**, **Production management**, (1998), Himalaya Publishing House, Pune. The author discussed in his book management thoughts and the modern management theories. Also added in the book is the impact of international management main impact.

13. **Dr.Murugan, M. Sakthivel**, **Management Principles and Practices**, (2016), New age International Publications, New Delhi,- In this book author focused on Scope of management, functions and principles, Management thought, Training and development ,Leadership and leadership styles, Communication and communication skills. This part is related to super and subordinates, Coordination and Recent trends in Management are added.

14. **Dr.Shajahan, S**. **Research Methodology,** (text and cases) (2006), Jaico Publishing House Mumbai. In this reference, the author points out specially Overviews, Preparation and Laugh cycle of Research Programmes, Research process, Research Design, Primary sources of data., Sampling theory, Data Analysis, Report Writing, first to last part related to research scholar

15. **Dr.Vaisishth, Neeru**, **Taxmann, Students Guide to Management**, Second Edition, July 2003,Management: In this chapter author focused on Concepts and Nature, , Evolution of Management, Management by Objectives all important objective are added, Decision Making and Authority and Responsibility with relationships, Departmentation and subordinate part also focused, Coordination, Staffing function, Direction functions, Motivation and all types of the theories of motivations also included, , Leadership and leadership qualities with types , Communication with communication skills, Management of Change and finally focused on social responsibility of Business.

16. **DubrinDubrinAndrew,JLeadership,** (Research Findings , Practice, and Skills) 5th Edition (2008), Biztantra, Management for the flat world, Delhi-02,Importance of leadership, Trans formalisation of Leadership, Situational Leadership,, Developing team Work, Motivation and coaching and Skills and Knowledge management are focused.

17. **Dwivedi .R.S**, **Manpower management**, 1984, Prentice-Hall of India, Pvt., Ltd., New Delhi., ISBN 0-87692-047-4. This book deals with a highly complex, constantly changing and expanding field of study. In fact, human resources management involves several complexities in the form of multidimensional reactions and individual and group relationships. The concepts of manpower management have changed drastically from the 'scientific management 'to the human relations approaches and recently, there is a trend to the behavioural science approaches. Notwithstanding these complexities, behavioural science knowledge has reached the point where we have adequate insight into the process of management of people. However, a great deal of knowledge available in this regard is founded on research result abroad. Therefore, although the market is flooded with numerous books on this topic, their applicability and relevance in the Indian context is not certain. Indeed, there is an urgent need of books based on research findings, empirically verified in India. This book attempts a modest and an integrated approach in this regard. Further, in view of constantly changing and expanding characteristics of the field, no single work can be expected to include adequately every subject in depth. This book has been selective in stressing those developments which appear of almost significance. It draws heavily upon the point of view, theory and empirical evidence provided by practitioners and scholars in behavioural science without burdening the reader with details of controversies prevailing in professional literature.

18. **Goel, S.L.,Modern Management Techniques**, (1995), deep and Deep publication, New Delhi-27, Management techniques, management planning and procedures, Administration of personnel training, Motivation and the motivational theories, Conflict Management, Work management, Record management, Time management and time motion also included.

19. **Gupta, C.B**. **Human Resource management**, (2010), Sultan Chand & Sons, Educational Publishers, New Delhi, ISBN No- 978-81-8054-857-4. The author has focused on a total of eight parts in this book and each and every part is important. He has added new information and included the national and international situations. The eight parts are: Introduction to management , HRM , Development of Human Resource management, Performance appraisal, Job Evaluation, Promotions, Human Relations, Job satisfaction, HRA, Recruitment and selection, Induction, Employee training, Executive

Development, Employee Empowerment, Performance appraisal, Job Evaluation, Employee Health and safety, Employee welfare, Social security, Discipline and Grievances, Industrial Dispute, Collective Bargaining, Workers participation in Management, Human relation, Management of stress and Burnout, International Human Resource management, HRM and Changing Environment. The present book under review is an excellent work pertaining to HRM. All the topics are systematically arranged and analytically presented. It adopts contemporary approaches. The major strength of this book is that it gives lot of insights about the practicality of the concepts from the Indian perspective.

20. **Hannagan Tim**, **Management-Concepts & Practices**, (1995), Macmillan India Ltd, SBN No 0333 93081 9. In this book the author has focused on as to how the managers are facing increasingly rapid change in the technology, culture and environment in which they work. Rapid developments in the application of information technology are matched by equally rapid changes in the structure of organisations, in the role of managers and in the economy and society in which they operate. This puts pressure on management which helps to emphasise the importance of understanding both the concepts and practices involved.

   The objective of this book is to analyse these concepts and practice in all areas of management in order to provide an understanding of the way organisations are managed and an appreciation of the most recent development in management theory and practice. This analysis is based on a consideration of past developments as well as looking those likely to take place in the future. The author also focused on other parts such as Challenges of Management, Leadership, Organisational Culture, HRM, Motivation, Business ethics and corporate Responsibility, Environmental issues and Environmental management, Multinational Management, Management in Perspective.

21. **Heinz Weihrich, Harold Koontz,** (2006) *Management – A global Perspective*, (11th Edition) (*Tata McGraw- Hill Publishing Company Limited, New Delhi*.). This title takes an international view of managing. The basics of global management theory and practice are included. Managerial functions, goals, the major trends in 21st century, productivity and 'Management an art or a science' are included in this edition. Human Resources take

active part in the modern economic development of any country. The abundant physical resources alone cannot benefit the growth of the country without human resource component, which transforms physical resources into productive resources. In fact, the differences in the level of economic development of the countries are largely reflection of the differences in quality of people of a country that determines its economic development. Out of the fundamental areas of management, HRM is considered as the most important area in the management of four Ms: Money, materials, machine and Men. It is needless to state the obvious point that considering the nature of man, the management of men is not only fundamental but also dynamic and challenging. Management of human resources includes guiding human resources into a dynamic organisation that attains its objectives with a high degree of morale and to the satisfaction of those concerned with it.

22. **Kerzner, Harold**, **Project Management**, (A system approach to planning, Scheduling and controlling)(2002) CBS, Publisher and Distributor New Delhi-02, *International Publishers New Delhi, ISBN:81-224-1506-7,* In this book author point out the modern staffing environment, Management functions and features are point very effectively, Time management and Conflicts part added in his book.

23. **Khanka S.S.,Human Resource management**,(2011), S Chand & Company Ltd, New Delhi- 55,ISBN No- 81-219-2300-X. In this book, the author has made an attempt to blend all aspects of HRM by logically dividing them into seven sections to enable the readers to comprehend the key and vital issues of HRM in a dynamic environment. The seven sections included in this book by the author focuses on HRM, specially environment and related issues, Acquisition and Absorption, Development, Maintenance and Retention, Control, etc, This book gives a well knitted and balanced coverage of theory, contemporary issues and practical examples and stories drawn from the Indian business world. Employee empowerment, potential appraisal, succession planning, strategic human resource management, HRM in a changing environment, HR in virtual organisation, international human resource management and leadership in the new millennium are some of the emerging and contemporary issues discussed in the book. These topics have not been dealt with in most of the books on HRM available in the

market. The book covers the whole syllabus related to HRM and latest issues in National and international HRM.

24. **Koontz O Dennell, Weihrich**, **Essential Of Management**, Fourth Edition, Mc Grew Hill, International Editors, New Delhi. Author focused on Management Theory, management approaches, the elements of environment in this part author also concentrate the environmental factor in his book, Social responsibility, Purpose of planning goals, objectives, Strategic policies, Departmentation and types of departmentation also include, Line and staff authority, Delegation of authority, selection procedure with scientific method also added, Performance appraisal and the importance of the performance appraisal, Organisational Development, Leading and Leadership, Motivation and motivation theories, Communication are point out the author very effectively.

25. **Kumar Ranjit,Research Methodology,** 3rd edition, Sage Publication India Pvt. Ltd, New Delhi-44, (2012), ISBN- 978-81-321-0648-7(PB). In this book author focused on Research Methodology techniques, research process. In the first step, the author discusses about the research problem, reviewing the literature, formulating a research problem, identifying variables, and constructing hypothesis. In the second part, author has added topics such as: conceptualising a research design, the research design, selecting a study design, the third part – Constructing an instrument for data collection. The fourth part- selecting a sample. In the fifth part, the author focused on writing a research proposal. The fifth step include collecting data, the next step relates to processing and displaying data and the last step is about writing a research report.

26. **Luis R.Gomez-Mejia, David B. Balkin, Robert L. Cardy. (2004) -** stated that organizations need to be more flexible than ever before to deal with a rapidly changing competitive landscape where global forces play a key role. Many transitional HR programmes designed for a stable, predictable context (for instance carefully defined jobs, which were often used as the basis for setting pay and selecting workers) may actually become a hindrance in the contemporary changing business environment.

27. **Mamoria C.B, Rao, V.S.P. Personnel management**, (text and Cases) Himalaya Publishing House Pune, (2012), ISBN N0- 978-93-5051-468-9. During the past decades, the personnel function has witnessed dramatic changes. The personnel manager, in the

past, was bombarded with record keeping activities of various kinds. It was more or less a policing activity trying to find out where things have gone wrong and putting everything back on track. Personnel positions were pushed to a corner and they were not part of the core term of an organisation deciding crucial issues. The author has focused on very important aspects on HRM and related parts and issues such as personnel management, Functions, Role and Challenges, Personnel management in India, Job Analysis-, Human Resource Planning, Recruitment, Selection, Employee Testing and Interviews, Placement-Induction, Promotions and transfer, Managing employee separation, Absenteeism, and turnover, Employee training, Performance appraisal, Job evaluation, Human relation and Group dynamic, Motivation and Moral, Grievances and Discipline, Workers participation in management, Industrial Relation, Industrial Conflicts, International Human Resource management, Contemporary Issues in India.

28. **Memoria, Memoria, Gankar., Dynamic Industrial Relations**, (2011), Himalaya Publishing House, Mumbai, ISBN No- 978-81-8318-140-6. In this book, the author has focused on the industrial labour force since the first development of a few large –scale industries- including factories, mines, plantation and other enterprises- with an analysis of the factors leading to the growth of the industrial workers and the peculiar features that have shaped the destiny of the millions of workers.

The conflicts are feared by all concerned as a harmful problem which leads to tremendous losses to the economy of the country and the community in more than one way. Hence, it has been increasingly realised that there should be a suitable, sound honest and effective bargaining agent who would represent labour interests, sort out the differences between the management and the workers and try to improve the relationship ship between them. Such an agent can and must be none other than the labourers' union. Part two, discusses in detail the various facets of these unions- *viz,* their organisation, structure, origin, function's, working, growth and problems and the role of workers education in fostering the interests of the trade unions in the country.

The industrial conflict is, in fact a "child of modern industrial development" and has its origin in certain economic, political, social and psychological factors which affects the entire community.

In part three, an analysis of the concept, approaches, organisation of industrial Relations, their evaluation, their anatomy- with special reference to India-has been given. And since Industrial Relations have been shaped and influenced by government policies, a detailed discussion follows on the Industrial relations policies of the Government and Relations as they exit in the public sector.

When conflict arise, they result in undesirable consequences- total stoppage of work and loss of production, losses of wages to labourers, loss to the community resulting from shortage of consumer and other essential goods and services, a fall in the national income and a widespread trouble in the form of uncontrollable law and order situation.

The last part of this book deals with important legislative enactments concerning industrial disputes, trade unions, industrial employment (standing order), wages, factories, mines and plantations, etc., finally a critical study of the proposed industrial relations Bill has also been made.

29. **Menon P.S.K. A Comprehensive manual of Human Resource Management**, (2012), Himalaya Publishing House Pvt. Ltd., Mumbai-04., ISBN No- 978-93-5051-333-0. The Challenges before HRM today is to evaluate the international scene under the business perspectives and acquire the competitive skills among personnel to match with the changing structure. This book provides a comprehensive coverage of contemporary issues and growing concepts of HRM techniques and applications in multiple choice questions, in simple and easily understandable style for the aspirants, who appear in competitive examinations. It is also in place to mention that it is must manual for management professionals in various fields. The author also focused on T & D very effectively specially focused on labour market and impact on today's situation. The author points out the main factors: leadership, communication, stress management and most important international Human resource management.

30. **Michael Armstrong, Human Resource Management Practices,** 8th Edition, (2001) British Library cataloguing in publishing data, Great Britain be the Bath press , Bath USA.,ISBN- 07494 3393 0. The author has focused on the new concept of HRM in Industry and the strategic HRM concept, intellectual capital and its practical implications, and the contribution made by HR to organizational performance, knowledge management

practices, and the organizational learning and the learning organization, new development in reward management, especially the play structure is explained very clearly with changing industrial relation scene.

31. **Michael, V.P., Human Resource Management and Human Relations,** 2011**,** Himalaya Publishing House Pvt. Ltd, ISBN-978-93-5024-998-7. Since the appearance of this book, the HRM concepts have attained wider dimensions. Managers across the globe now visualise HRM as their centre of attraction. Globalisation of business has given further impetus. HRM & HR has been widely acclaimed as an authentic treatise on the subject. The overwhelming response from the readers and managers has been evidenced by tremendous demand for the work in the market on the one hand and widespread appreciation of readers and HRM professionals on the other. The author points out in his book especially some approaches of HR Communication in HR Job analysis, Leadership and Human relations. The author has also focused on Motivation and types of motivation which is most important in today's Industries. Which Leadership styles are useful in which situation is clearly classified in this book?

32. **Morajkar,V.V,Kakade,M.D, Geet,S.D, Geet, A.S, Human resource Management,** NiraliPrakashan, Pune, (1999). The author has focused in this book on HRM and Industrial Relation. In fact, the book comprises topics basically related to management of human resources only. Keeping this in mind, various aspects of Human Resource Management and cases in HRM are discussed in this book. The author also added in this book other parts such as all aspects and related to management and new and traditional aspects are added., HRM Evolution, manpower planning , Recruitment and selection, Training and development, Management Performance Appraisal, Moral and counselling Techniques, HRD Practices in India, Effective communication management, Professional management Skills Development.

33. **Murugan M, Sakthivel, Management Principles and Practices, 2004, New Age.** The author has focused in this reference book on management as a growing and developing discipline. Its principles have wide applications. The book deals with principles as well practices of management. All efforts have been made to include the latest research contribution by management and organisation thinkers. Especially in the field of

motivation, leadership communication and management control. Reference has also been made to organisation theory so as to make the readers and researchers conscious of the development in that field.

34. **P. Jyothi. andD.N.Venkatesh. (2006)** stated that the human resource of an organization, constitute its entire workforce. Human resource management is responsible for selection and including competent people, training, facilitating and motivating them to perform at high levels of efficiency, and provide mechanisms to ensure that they maintain good relations with the organization. Human resource management is also an art of developing people and their potentialities, and for the growth of the organization.

35. **PardeshiP.C.,Human Resource Management**, (1999), NiraliPrakashan, Pune. The author says that HRM has achieved a pivotal position in management due to enormous and rapid change in the business environment in India backed by liberalisation of economy. In the context of Globalisation of business, Modernisation of technology and large scale employment, a need exists for a fresh look at the human resources. Multinationals, foreign investors and NRTs entering the Indian business in a big way. Communist countries adopting capitalism and large scale transfer of technology has necessitated a wider perspective of human resources. The workers today are being recognised as a human being and they are more united, enlightened and right-conscious. The advent of globalisation of business, psychology, sociology and other behavioural sciences have contributed a lot to the development of management philosophy. In order to ensure proper management of human resources people should be managed effectively and efficiently, cordial industrial relation should be maintained. The author has also focused on HRM and Personnel management, Training and Development Process, Career Planning and development, Wage and Salary Administration, retirement and Separations, Human Relations in Industry, Industrial relations, Grievances and Discipline, Workers Participation in Management.

36. **Peter J. Dowling and Denice E. Welch (2004).** The author has rightly focused on International Human Resource Management and how the international changes are taking place since 2003. The author deals with the multinational context and the consequence of international growth on human resources management. The author on focused on activities related to expatriate management and global HRM issue.

37. **Prasad Lallan, Gulshan.S.S., Management Principles and Practice**, 1998, S. Chand & Company Ltd., Ram Nagar, Delhi-55, ISBN-81-219-0317-3, management is a growing and developing discipline. Its principles have wide application. The book deals with principles as well as practices of management. All efforts have been made to include the latest research contributions by management and organisation thinkers, especially in the field of motivation, leadership, communication and management control. Reference has also been made to organisation theory so as to make the researcher or studied persons conscious of the development in that field. The author has focused on staffing, communication, motivation leadership, and public responsibilities of business very effectively.

38. **Prasad, L. M., Human Resource Management**, Sultan Chand & Sons, Educational Publishers, New Delhi. (2006). ISBN N0 978-81-8054-769-0. The Author has added new and latest concepts. Some relevant issues are: strategic human resource management, implications of systems and contingency approach in managing human resources, different models of managing human resource and their implications , environment influences on human resource management , relevance of human resource department computerized human resource information system role analysis , selection tests, training and development culture ,knowledge management , time management, self-management, career planning and development, people capability maturity model, performance appraisal ,planning creating motivational environmental, human resource counselling etc.

39. **Punekar, S.D, Deodhar, S.B, Sankaran, Sarswathi**, **Labour Welfare, Trade Unionism and Industrial Relations,** (2012), Himalaya Publishing House, Nagpur, ISBN 978-93-5051-512-9. This book has retained its three main constituents – labour welfare, trade unionism, and industrial relations, but in a relevant and recognised form, keeping in view, the significant impact of the changes taking place in the country under economic reforms commonly known as LPG model i.e., Liberalisation, Globalisation and Privatisation. The book presents the current scene in this field with a new and updated perspective. Beside this the book contains a new part which has a focus on diverse aspects like: Issues of segment of labour like- Child labour, women workers, HRM- as a present approach to handling of labour relations, Labour market problems pertaining to

employment, i.e., displacement and utilisation of labour, 2nd National commission on Labour and a gist of its recommendations.

40. **Rao, Subba P. Personnel and Human Resource Management** (text & Cases), (2000) Himalaya Publishing House, Pune, Mumbai, ISBN- 81-7493-777-3. In this book out of the fundamental areas of management, HRM is considered as the most important and critical area. In the management of five Ms: Money, Materials, Machine, Methods and Men. It is needless to state that considering the nature of man, the management of men is not only fundamental but dynamic and challenging. Management of human resources includes guiding human resources into a dynamic organisation that attains its objectives with a high degree of morale and to the satisfaction of those concerned with it.

The concept of HRD assumes immense significance due to the creation of HRD ministry in the Union Cabinet and also as HRD plays vital role in meeting the challenging requirement of highly skilled and competent human resource due to privatization and globalisation.

Further, maintenance of industrial peace plays vital role as Indian economy cannot afford industrial unrest in the context of global competition. The author also focused on the other related issues such as   HRM Scope and nature, Strategic HRM ,Job Analysis, Recruitment, Selection, Performance Appraisal, Employment   Training, Promotion and transfer, Motivation and Job satisfaction, Communication, Leadership, Indian labour market, Trade Union, Grievance and Discipline, Industrial Conflict, Workers Participation in Management, Recent Techniques in management.

41. **Rao, Subba. P., Essentials of Human Resource Management and Industrial Relations, Fifth Edition, 2012, Himalaya Publishing House, Mumbai, ISBN-978-93-5051-630-0.** In this book, author has focused on the functions and principles of management that have been undergoing sea changes since the announcement of economic liberalisation in the country in 1991. In fact, the practice of management has been increasingly humanised in the process of globalisation of Indian Economy. Unlike in personnel management, the concept of human Resource Management is increasingly becoming a most vital function of a modern manager.

42. **Rao, V.S.P.Human Resource Management**, (Text and Cases)(2005), Excel Books , New Delhi, ISBN No- 81-7446-448-4. The author has focused in this book on managing human resources. It describes how the human assets are being put to use in the service of organisational objectives. It provides a comprehensive coverage of a vast, growing subject- well supported by a wealth of data collected from several sources. It has a number of informative tables, interesting summary boxes and illustrative figures. The subject matter has been presented in a simple and clear manner, keeping the unique requirements of all studied persons in mind. Critical and balanced coverage has been given to the entire important topic in HRM, HRD, and Industrial Relations. The book has many meritorious features, which sets it apart from other books in the field currently available in the market. The author has also focused on another topic i.e. Job analysis, HRP, Recruitment, selection, Placement, Training, Succession Planning, Job Evaluation, Performance appraisal, Social security, team Work, Employee Grievances, Industrial Relation and Industrial dispute, Counselling-and mentoring, International Human resource management.

43. **Robert A. Fazzal**, **Management Plans**, 1994, IRWIN, Professional Publishing, Burr Ridge, Illinois, New York. -- The need for a new supervisory management model, One that works-1, Supervisory management: What is it?, Developing the functional management model also added.

44. **Sadri, Sadri Jayashree**., **Human Resources Management in Modern India** (Concepts and Cases), 2013, Himalaya Publishing House Pvt, Ltd, ISBN-978-93-5097-099-7.,Since this book has been written by a political economist turned management scientist and a classics scholar turned behavioural scientist, the reader will find an interdisciplinary flavour throughout the discourse. Simplifying and elaborating on the earlier published work, the author has taken twenty –two subthemes and briefly treated each of them. Each subtheme is woven into an argument that treats people management in Indian organisation at the beginning of the present century. The idea is to give introduction to human resources management which is currently being taught in a manner that could do with some improvements.

45. **SarmaA.M., Aspect of Labour Welfare and Social Security**, (2012), Himalaya Publishing House, Pune. The author has focused on labour welfare and which types of facility are provided by the organisation and Government, especially State and Central Government. Industrial Health and social security chapters are latest and give us most of latest amendment which is passed by the Central government law body. All Acts especially the employees Compensation Act 1923 is gives valuable guidance in this book. The book also includes ESI Act-1948, Provident Fund Legislation for coal Mines, Tea Plantations and Seamen, The Employees provident funds and Miscellaneous Provisions Act-1952, The Maternity Benefit Act-1961, The payment of Gratuity Act 1972 are included.

46. **Sarma, A.M.,Aspects of Labour Welfare and Social Security,** 2000, Himalaya Publishing House. In this book the author has focused on two parts: first part deals with the concepts, principles, and practices of labour welfare and personnel services and the second part is focused on the social security's scheme and cover in detail different social security legislations in our country. In this book, the author also offers few practical ideas and suggestions for labour welfare practitioners. Many topics have been elaborated and the latest amendments in different social security enactments and recent case law on the same have been incorporated to make the book up-to-date.

47. **Sarma, A.M.,IndustrialRelation**, (2012), Himalaya Publishing House, Mumbai, ISBN: 978-93-5024-674-0. Industrial relations are a major topic which influences the social, political and economic development of a country. Managing industrial relations is a challenging task because it deals with a highly complex, fast developing ever changing and expanding field. There are certain factors such as composition of working class, work environment, socio-economic status of the workers and their attitude to work, managements ideology, role of the State, thinking of the community, etc. which have a considerable bearing on the state of relationship between labour and management. Different labour enactment and judicial decisions play a major role in regulating the employer-employee relationship. Keeping in view the different aspects of industrial relation, an attempt has been made in this book to provide multi-dimensional approaches to the subject. The author also focuses on the different Acts related to Industries such as, The Industrial Employment (Standing Orders) Act 1946, The Industrial Disputes Act-

1947, The Trade Unions Act-1926, The Bombay Industrial Relations Act-1946, The Maharashtra reorganisation of Trade Unions and Prevention of Unfair Labour Practices Act-1971.

48. **Sarma, A.M.,Personnel and Human Resource Management**., third revised edition, 2000, Himalaya Publishing House, ISBN- 81-7866-017-2. In this book the author has focused on the important issues on industrial relations such as job analysis, selection procedure in internal and external, performance appraisal, training and development, The author also points out things which are most important to employees health and safety issues. Finally, employee's welfare and relations are added in this book.

49. **SenRatan**, **Industrial Relations in India**, (Shifting Paradigms) (2003), Macmillan India Ltd, ISBN 1403 910294. The author has focussed on the state of Industrial relationship and today's situation in industries in India, Employment and Indian labour and participation in management, Trade Union and the role of trade union and Government, Trade Union in India, Industrial Relationship system in India: Settlement of Disputes. Evaluation of Industrial Relationship in India is a good contribution made by the author. Recent Trends in Industrial Relationships, Workers Participation in Management and correct solutions to the problems are stated in this book. Human Resources Management and Industrial Relationship also focused and how to handle the grievances raised by the workers and main role of superiors are given in this book.

50. **Sherlekar S.A**. in his book Management (Value- Oriented Holistic Approach) 1977, Himalaya publishing, Pune. In his book, the author has focused on Management and levels of management especially administration and Management. The author has also discussed in his chapter Indian ethos and management and management today and tomorrow clearly explained with different tools.

51. **Singh Nisha**, **Human Resource Management**, (2012), Himalaya Publishing House, Mumbai. ISBN No- 978-93-5051-748-2. The author has focused on the special emphasis on HR planning recruitment and selection, promotion, demotion and compensation; system. This book will help clear all concepts related to HR, HRM and HRP. The author has also focused on job analysis, design, recruitment, training and development, performance appraisal, Industrial relations, and collective bargaining.

52. **Singh, Nirmal,** Human Resource Management, (2012), Galgotia Publications Pvt. Ltd., New Delhi. ISBN- 81-7515-471-3. The author has focused especially on HR that takes active role in the modern economic development of any country. The abundant physical resource alone cannot benefit the growth of the country without Human Resource component which transforms physical resource into productive resource. In fact, the differences in the level of economic development of the countries are largely a reflection of the differences in quality of their human resources. The key element in this proposition is that the values, attitudes, general orientation and quality of people of a country determine its economic development. The author also focused on the HRM, Evolution of stages of Human Resource Management, Challenges in Human Resource Management, Innovations in HRM, Trends in HRM, Job Evaluation, Staffing and Layout, Recruitment, Selection, Placement and Indication, Job satisfaction, Trading and Development, Training methods and techniques, Motivation, Labour welfare and Social security, Grievances handling Machinery, Role and Functions of Trade Unions, Industrial Relations.

53. **Stoner James, Freeman R. Edward, Daniel Gilbert Jr**. **Management (6th Edition)Prentice Hall of India Private Limited New Delhi-01 (2000),** ISBN No- 81-203-0981-2. Management in 21st century is framed in detail in the chapter on organisational and natural environment.

54. **Stoner, James. A, Faeeman, R. Edward, Daniel A. Gilbert**, Management, (2000), Prentice Hall of India Private Limited, New Delhi-01,Introduction to management, 4, Management inn Twenty- First Century-60, Managing to manageemrs,-6, Types of Managers-16,Managemetn Theory-32,Management in 21st Century-60, Social Responsibilities and ethics-95,Globalisation and Management-125,Culture and Multiculturalism Strategic Implementations-84, Power and Distribution of Authority-342,HRM-374,Leading-440,Leadership-468,Communications-522, Information System-610.

The author point has focussed on issues such as an overview of the foundation of HRM, concepts of HRM, strategic HRM and intellectual capital theory, an examination of the practices of HR management with particular reference to the role of HR

practitioners and the HR functions, the contribution made by the functions in organisational success, methods of evaluating that contribution and a survey of international HRM. A description of the processes used in organisation design and development and job and role design. A description of the major HR processes that affect most people management practices, namely, HR policies, competentence-relate4d HR management, knowledge management and job and role analysis. A review of the main features of performance management process, including 360 – degree feedback. A review of the employee relation scene covering the framework processes, negotiating skills, involvement and participation and communication. A description of health and safety and welfare management processes is also included. A final scene covering employment practices, HR procedures and HR information system is also provided.

55. **Towers Brain,** (Handbook of Human Resource Management) (1998) , Bean Books, New Delhi-63,ISBN- 81-86104-55-X. The most important book is written by this author. In this book the author brings out the focus of all countries on HRM. The author points out the central ideas and each and every country's HRM study is discussed in this book. The author also discussed the other related issues such as the HRM Study of UK, HRM in USA, Trade Unions and HRM, HRM a sceptical look, Performance appraisal, Training and Development, HRM and Women in the vision of Gender—blind?. HRM in the information age.

56. **Towers, B.,Human Resource Management**, (2000), Infinity Books, New Delhi-63, In this book author has focused on different countries study summarised in HRM, specially US UK   Australia, Workforce Flexibility Performance Appraisal-, Training and Development of the employees, HRM Changes in the Information age, HRM Changes at Bayer Diagnostics Manufacturing Ltd. Commitment and Conflict: Workers resistance to HRM in Microelectronics Industries, Managers work Values in Different Cultures : the Case of the Korea Electric Power Corporation.

57. **Varma, M.M., Aggarawal, Personnel management and Industrial Relations**. 1987, Forward Book Depot, Educational Publisher Post Box-No- 1489. The author has focused on personnel policies and manpower planning, Recruitment and selection procedure, Interviews and tests, Job changes and impact of job changes. The author has also

focussed on Training and development and job analysis, motivational factors, vertical and horizontal communication, Leadership styles, Industrial discipline, grievances and labour problems. Today's trade unions situation in India and Global level, Social security and workers participation in management are also included.

58. **Weihrich, Heinz, Koontz, Harold,Management –A Global Perspective**, (2006) Tata McGraw-Hills Publications limited New Delhi. ISBN No- 0-07-059856-8. In this book the author has focused on Global management Theory and practice, Management and Society-The External Environment, Social; Responsibility, and Ethics, Global, Comparative and Quality management, Staffing, Performance appraisal and Career Strategy, Managing change through manager and organisational Development, Human Factor and motivation, Leadership, Communication, Productivity, Operations Management, and Total Quality Management.

59. **Tripathi., Personnel Management & Industrial Relations,** (1997), Sultan Chand & Sons Educational Publisher , New Delhi-2, ISBN No- 81-7014-181-8. In this book the author has focused on the important areas of HRM such as leadership and leadership styles, Motivation and other related theories of motivations, Employees communication and types of communication, Performance appraisal, training and development, Job Change, Labour welfare and social security with latest laws and amendments, role of trade unions and industrial relations, workers participation in management.

2.3. Journals and Periodical

1. **"The Hindu Speaks on Management**" - 'Learning and Organization', 29'h April 1995. In this periodical, the relationship between learning and the organization is discussed. Both activities are interdependent and without any one we are not complete.

2. **A Report on Global chemical industry merger and Acquisition Outlook Feb-2014.** In this article, the major issues are focused. What is the need and importance of merger and acquisition is discussed in detail in this article. At the global level we have the need to cooperate with each other. The author states that the chemical industry is developing because of cooperation between the firms.

3. **Abdul Aziz, Management, Personnel Management**, Bibliography of Doctoral Dissertation. (1972-78). In this journal, the author has focused on the worker related issues especially recruitment and selection and motivational factors.

4. **AICEP Portugal Global Petrochemical Industry** – 2013 by "Portugal is a Business Opportunity."

5. **BASF** Report: 2012. Economic, Environment and Social Performance – BASF the Chemical Company. In this report the most important thing is that economic development is discussed. The author also points out that we if we do not become conscious of environmental issues, our future is not going to be good. Other issues discussed in this periodical are pertaining to social performance of chemical industry. In this issue, the names of some of the chemical companies' who are conscious of social issues are mentioned.

6. **Business Today**- Dec-2012, Motoring, Amaze Driven. In this journal article titled 'Amaze Driven' the ideas of motoring the personnel and how to guide the personnel properly are discussed detail.

7. **Business Today,**Nov. 2012, Are Indian CEO Over-paid. In this journal, the publisher has focused on Indian chief Executives officers, their duties and responsibilities and current situation of CEO and the future is also discussed.

8. **Chains Chemical Industry**: The new Forces driving Changes: Chemicals and performance Technologies – A New paradigm ahead? (2011)

9. **Chemagility:** A Global perspective on the world chemical Distribution Market - First panel session: Chemical Distribution Industry Landscape Lisbon, May-22nd 2012.

10. **Chemical Industry from an economic perspective**: Development trends in the world the EU and Sweden in 2010. Published by Swedish chemical Agency

11. **Chemical Industry Profile**: World Chemical Sale: Geographic Breakdown – 2007. In this issue, chemical industries geographical part is discussed. The world chemical sale and the economic development are focused in this article. So we know which country needs chemical raw materials and which countries export the chemical raw materials. And other part is economic development of the country through chemical industries.

12. **Chemical Industry Profile**: World Chemical Sales: Geographic breakdown - Facts and figures – 2011.

13. **Chemical Industry Vision 2010**: A European Perspective by At Kearney (2012). In this article A European perspective are discussed. The author Kearney is focused on the Chemical Industry Vision and the future of European countries. Need and the importance also discussed in this article.

14. **Chemical Industry**: (World) Deloitte – 2011.

15. **Christopher Daniel**, J., 'Realizing People Philosophy of Organizations', The Hindu speaks of Management, 12' July 1995, page - 199. In this journal, the author has focused on total organizational philosophy Indian management and Hindu philosophy. The relation of management and Hindu religion and the impact of Hindu religion on management are discussed.

16. **Deenadayalan. K., "HRM past, present and future**", The Hindu speaks on Management, **4'** Oct. 1995, page .230. In this article the author has focused on the Human Resource Management. Author point outs the past, present and future situation of HR managers and organizational factors.

17. **Facts Driving Change Industry**: The New Forces Diving Change: Chemical and Performance Technology – A new paradigm ahead? (2011)

18. **Global Chemical Outlook**: Towards Sound Management of Chemical – Tends and Changes- 2013.

19. **Global outlook**: The Chemical Industry of South Korea: Progress and Challenges American Institute of Chemical Engneers-2011.

20. **Human Resource Management review**, The ICFAI University Volume – IX, Issue –III, Press, March 2009. In this article the author has focused on the Changing trends in Human Resource Management. At the same time author has discussed the main issue of corporate leadership and styles of leadership. If you use the effective style of leadership in your organization the overall impact on the organization will be fruitful.

21. **Human Resource Management review**, The ICFAI University Press, January 2009. In this periodical, the most important issues discussed are the art of delegating, the delegation of authority and responsibility. The delegation of authority and responsibility are the most important factors in the organization because superiors are working with free minds and subordinates are controlled.

22. **Human Resource Management review**, The ICFAI University Press, January 2009. In this periodical, issues pertaining to Training and Development are discussed. Different types of training are discussed and how to develop the individual, group and organizational level are focused in this article.

23. **Human Resource Management review**, The ICFAI University Press, Volume IX, Issue V, May-2009. In this periodical the author has discussed issues pertaining to managing workplace stress and coaching the Leader and Leadership and leadership styles.

24. **Human Resource Management review**, The ICFAI University Press, Volume IX, Issue VI, June -2009. In this issue Leadership failure is discussed along with work Environment.

25. **Human Resource Management reviews**, The ICFAI University Press, Volume IX, Issue – IV, April-2009. In this article the author points out the most important aspect that is the Changing Role of HR and Qualitative Recruitment for Employability.

26. **ICEP Portugal Global Petrochemical Industry** – 2013 by "Portugal is a Business Opportunity."

27. **Increased value?** IBM Business Consulting Services –On Demand Business (2011)

28. **International federation report** - of Pharmaceutical manufacturers association – The Pharmaceutical and global health – Facts and figures 2014. (IFPMA)

29. **Mathrubootham. A, "Residual to Human Resource Management"**, The Hindu speaks on Management, 22" April 1995, pp. 177, 18 1. In this issue, the relation between the Hindu traditional and Modern Management co-relation is discussed.

30. **New Biocatalysts: Essential tools for a sustainable 21st** Century: Chemical Industry: - November – 1999.

31. **OECD- Environmental Outlook for Chemical Industry** – (2001) Organization for Economic Co-operation and Development (OECD)

32. **Reaction: Strategy realignment in the global Chemical Industry** – Chemical Magazine – 11th Edition by KPMG –Cutting through Complexity.

33. **Responsible Care: Global Character** – Global Chemical Report: 2002-2012.

34. **S. V. Kumar, A.B., "Developing Proactive Organizational Culture",** The Hindu Speaks on Management, 1" July 1995, p.67. The author has focused on the changing organizational structure. The proactive development and the culture of organization is also discussed in this article.

35. **Safety and Health in the Use Chemical at work** – World day for Safety and health and at work – 28th April 2014.

36. **Shankar Ravi, Employee benefits in India, an Introduction**, Millennium White paper, New Delhi, April 2013. In this article the author has focused on the employee benefits in India and how to get better benefits in India as India is entering the global market and accepting the new challenges.

37. **Sivakumar**, **A.B., "HRD for Results: the new agenda**", The Hindu speaks on Management, 26' April 1995. In this article, HRD, organizational activities and result oriented activities are discussed. The author has focused on Managerial skill development.

38. **The Chemical Industry in a Demand world:** Does your future hold volatility or increased value? IBM Business Consulting Services – On Demand Business (2012)

39. **The Economic benefit of Green Chemical Industry in the United States** –By Blue green Alliance May 2011.

40. **The Economic benefits of a Green chemical Industry in the United States** – By Blue green alliance. May-2011

41. **The Global Chemical Industry: Profile and Trends** – Global Outlook for Chemical and Waste Geneva, June 6, 2009.

42. **University News,Leadership to Guide the Density of India.** More Ankush. L. Feb-2012. In this periodical, the focus is on the leadership of the organization and if the leadership is practical and effective in delivering fruitful organizational result.

43. **University News: Monthly Commentary on Indian Economics** –Nov.2012. The Indian Institute of Public Opinion, - Government Goes for Major Policies Changes. In this article the author has focused on the changes in the government policies that impact the internal and the external environment of the organization and competitiveness of the organization.

44. **University News: Recent Trends Challenges, and Opportunity**.Nov-2012 Vol-6. In this periodical, the SWOT is discussed. The SWOT analysis and the recent changes in the organization are pointed out. At the level of the manager, this process is challenging. If the organization uses SWOT effectively and efficiently the organization will reach up to the target.

45. **Varadhan, S.S., 'Achieving Performance advantage through people'**, The Hindu speaks on Management, 14' June 1995. p. 195. Varadhan, S.S. The article discusses about the performance across the levels in the organization and people must get the advantages of performance.

46. **Waste Water Treatment in Chemical Industry** – The Concepts and Current Technology – Hydrology – Current Research 2014.

2.4. Articles.

1. **Patrick M. Wright**, Cornell University, **Timothy M. Gardner**, Brigham Young University, **Lisa M. Moynihan**, London Business School, Human Resource Management Journal, Vol. 13 No 3, 2003, pages 21-36. The impact of HR practices on the performance of business units. This article examines the impact of HR practices and organizational commitment on the operating performance and profitability of business units. Using a predictive sign with a sample of 50 autonomous business units within the same corporation, the article reveals that both organizational commitment and HR practices are significantly related to operational measures of performance, as well as operating expenses and pre-tax profits.

2. **Pankaj Tiwari Shri Chimanbhai Patel Institute of Management & Research Ahmedabad-**380051 (India) Karunesh Saxena Faculty of Management Studies, Mohanlal Sukhadia University, Udaipur-313001, India, Human Resource Management Practices : A Comprehensive Review. Human Resource is the most important asset for any organization and it is the source of achieving competitive advantage. Managing human resources is very challenging as compared to managing technology or capital and for its effective management, organization requires effective HRM system. HRM system should be backed up by sound HRM practices. HRM practices refer to organizational activities directed at managing the pool of human resources and ensuring that the resources are employed towards the fulfillment of organizational goals. This paper has been designed to review the existing literature available on HRM Practices. The purpose of this paper is to develop an understanding of HRM Practices and to examine the unique HRM practices implemented by different companies.

3. **Syed Akhta R, Daniel Z. Ding, and Gloria L. GE, "Strategic Human Resource Management Practices and their Impact on Company Performance in Chinese Enterprises."**, Human Resource Management, spring 2008, Vol. 47, No. 1, Pp. 15–32, 2008 Wiley Periodicals, Inc. published online in Wiley Inter Science This study examined the factorial validity of strategic human resource management practices and their effects on company performance in a sample of 465 Chinese enterprises. Data were collected through two questionnaire surveys among general managers and HRM directors on product/service performance of their companies and a range of strategic HRM practices. Our findings indicate that a valid set of strategic HRM practices (training, participation, results-oriented appraisals, and internal career opportunities) affect both product/service performance and financial performance. Employment security and job descriptions contribute uniquely to product/service performance, whereas profit sharing contributes uniquely to financial performance.

4. **Mahmoud Ezzamel** Cardiff Business School Cardiff University, UK Simon Lilley School of Management University of Keele, UK Adrian Wilkinson Loughborough University Business School Loughborough University, UK, Hugh Willmott Judge Institute of Management University of Cambridge, UK, Practices and Practicalities: Changing Human Resource Management, A later version of this article appears in

Human Resource Management Journal, 6, 1: 63-80 (1996) For more information on published articles by Hugh Willmott.

5. **Patrick M. Wright**, **Cornell University Timothy M. Gardner, Brigham Young University Lisa M. Moynihan**, London Business School Human Resource Management Journal, Vol. 13 No 3, 2003, pages 21-36, The impact of HR practices on the performance of business units, Human Resource Management Journal Vol: 13 No.3, 2003, This article examines the impact of HR practices and organizational commitment on the operating performance and profitability of business units. Using a predictive design with a sample of 50 autonomous business units within the same corporation, the article reveals that both organizational commitment and HR practices are significantly related to operational measures of performance, as well as operating expenses and pre-tax profits.

6. **Philip M. Rosenzweig and Nitin Nohria Harvard Business School** , Influences on Human Resource Management Practices in Multinational Corporations, Palgrave Macmillan Journals is collaborating with JSTOR to Digitize, preserve, and extend access to *Journal of International Business Studies, page*No.229, A study of human resource management practices in 249 U.S. affiliates of Foreign-based multinational corporations (MNCs) shows that in general affiliate Human Resource Management Practices closely follow local practices, with differences among specific practices. The degree of similarity to local practices is significantly influenced by the method of Founding, dependence on local inputs, the presence of expatriates, and the extent of Communication with the parent. In addition, sharp differences are revealed among affiliates of Canadian, Japanese and European MNCs, suggesting strong country effects. Together, these findings support the view of MNCs as composed of differentiated practices, which in turn are shaped by forces for local isomorphism and for internal Consistency.

7. **Francis C. Anyim PhD , Cyril OselokaIkemefuna and Samuel E. Mbah, FCIPM**, FNIM, FABS, FCAI; Department of Industrial Relations and Personnel Management, Faculty of Business Administration, University of Lago. , Department of Industrial Relations and Personnel Management, Faculty of Business Administration, University of

Lago. , Department of Industrial Relations and Personnel Management, Faculty of Business Administration, University of Lagos. Human Resource Management Challenges in Nigeria Under a Globalised Economy, International Journals of Economics and management science Volume -1 No-4,-2011 PP 01-11, The pace of globalization is increasing continuously in terms of markets for goods and services, investment opportunities across borders amongst others. Enterprises face competition from all fronts. Human resource management is not left out in this transformation crusade as it has obligation to move along with the changing demands of the globalization process. One of the objectives of this paper is to show that effective managers should constantly be aware of the changes taking place in domestic (home country) environment, as well as around the globe international and foreign environments) on HR issues and developments. By so doing, they can scan their environment on an ongoing basis, and when they detect opportunities and/or threats, they can transform their organization to seize the opportunities and/or combat or neutralize the threats as the case may be. In this presentation, problems, issues and trends in HRM practice in Nigeria in the current Periods were reviewed. The factors affecting HRM and its practice in a global context and what should be the direction of the profession and its practice in Nigeria Constitute the main focus of this paper.

8. **Mrs. EktaSrivastava, Dr. NishaAgarwal, The Emerging Challenges in HRM**, Internal Journal of Scientific & Technology Research Volume -1, Issue- 6, July 2012, ISSN 2277-8616, This paper analysis the various challenges which are emerging in the field of HRM. The managers today face a whole new array of changes like globalization, technological advances and changes in political and legal environment. Changes in Information technology. This has lead to a paradigm shift in the of roles professional personnel. The great challenge of HRM is to attract, retain and nurture talented employees. This paper also analysis how to overcome with these challenges. These challenges can overcome through cross cultural training, technological and informational training of HR people and motivation of employees through various techniques.

9. **Shamas -UR - rehman Toor.** (Corresponding Author) , PhD Candidate and Research Scholar Department of Building, Faculty of Design and Environment, National

University of Singapore, Singapore, Problems and Challenges in Human Resource Management: Pakistan Journal of Commerce and Social Sciences Vol.1 2008, This paper critically analyzes the work culture for a mainstream financial organization operating within Pakistan, while drawing a specific example to elucidate certain dilemmas that impede the potential growth for the financial sector and its constituent workforce, besides hampering the performance of the organizations. The case study is related to an organization in financial sector which conducts a Management Trainee Program with the purpose to select, train and develop a high- potential pool of talent into future leaders and fore-runners of the organization. This paper critically analyzes several inherent problems that face the successful implementation of the trainee program under the frameworks of various theories of organizational management. To solve these problems, this article presents a detailed diagnosis of the management shortcomings to improve the firm's corporate culture, work ethics and employee handling strategy and mechanism. Recommendations are also made to minimize the problems and maximize the success of the Management Trainee Program in the case study organization.

10. **Balwinder Singh, 2. Dr. Seema Dhawan,** CMJ University, Shillong, Meghalaya, India, Challenges Faced by H R Managers in the Contemporary Business Atmosphere, IJMBS Vol. 3, Issue 2, April - June 2013, ISSN: 2230-9519 (Online) | ISSN : 2231-2463 (Print), The rapidly transforming business landscape means that there are currently many human resource management challenges which will continue to evolve for years to come. Issues facing HR are expected to change dramatically in the next decades. In this paper, we have discussed about the various challenges faced by HR Managers in Contemporary Business Environment.

11. **Dr. Khaliq Ahmad, Director, Management Centre**, International Islamic University Malaysia, Challenges and Practices in Human Resource Management of the Muslim World, The Journal of Human Resource and Adult Learning Vol. 4, Num. 2, December 2008, In a highly competitive environment of the 21st century, ignoring cultural and religious issues in management is committing corporative suicidal. Failure to optimize the benefits of culture-based management practices has led to flaws in many organizations" implementation approaches. Realization of maximum benefits of a

culture-based management practice essentially requires knowledge of spiritual and mental factors, which include "soft" (management) factors, as well as "hard" (physical) factors such as systems, tools and techniques. These critical factors are requisites of a successful career in management in South East Asia in general, and in Malaysia particular. They apply in all key management processes; leadership; planning; customer service; supplier and community relations, " production and distribution of products and services; and bench marking.

12. **Pankaj Tiwari Shri Chimanbhai Patel Institute of Management & Research Ahmedabad**-380051 (India) Karunesh Saxena Faculty of Management Studies, Mohanlal Sukhadia University, Udaipur-313001, India, HUMAN RESOURCE MANAGEMENT PRACTICES: A COMPREHENSIVE REVIEW, Pakistan Business Review, January-2012, Human Resource is the most important asset for any organization and it is the source of achieving competitive advantage. Managing human resources is very challenging as compared to managing technology or capital and for its effective management, organization requires effective HRM system. HRM system should be backed up by sound HRM practices. HRM practices refer to organizational activities directed at managing the pool of human resources and ensuring that the resources are employed towards the fulfillment of organizational goals. This paper has been designed to review the existing literature available on HRM Practices. The purpose of this paper is to develop an understanding of HRM Practices and to examine the unique HRM practices implemented by different companies

2.5. Websites:

1. **www.vidyanidhi.org** (for duplication check)
2. **www.isidev.org** (to check articles appeared in around 125 Indian journals & newspapers)
3. **www.igidr.ac.in** (for e-journals and books in economics, banking and finance)
4. **www.britishcouncil.org.in** (books, e-journals of UK-paid service)
5. **www.tiss.edu** (research projects, research report, & research abstracts in social science literature)
6. **www.icssr.org** (for fellowships, awards, sources, surveys in SS)
7. **www.sosig.uk.in** (a web portal on social science literature)
8. **www.infolibrarian.com/ejls.htm** (for free e-journals)

2.6. Conclusion:

In depth Literature Review provide insight to the researcher in respect of Human Resource Management Practices. The researcher had identified the research gap which is explained below. It was found that workers in Chemical Industries have to deal with some specific issues such as health hazards, Navi Mumbai area has one of the biggest chemical industries zone. However a study of Human Resource Management Practices with specific focus on Chemical Industries in Navi Mumbai which deals with different problems faced by workers was yet to be made. Based on this concept the researcher conducted pilot study and frame its research design and methodology which is explained in next chapter.

Chapter – 3

Research Methodology

3.1.   Introduction & Objectives of Study

3.2   Research Problem

3.3.   Criteria for the study

3.4.   Research Question

3.5.   Research Design Table

3.6.   Research Methodology and techniques.

3.6.1. Primary Data.

3.6.2. Secondary Data

3.6.3. Statistical Techniques used.

3.7.   Hypothesis.

3.8   Limitations of the study.

3.9   Contribution of the Research work.

3.10   Conclusion

3.1. Introduction & Objectives of Study:

　　　　In the earlier chapter, the literature on Human Resource Practices followed in India and elsewhere was reviewed. After in-depth literature review, the researcher was able to identify several gaps in earlier study and hence there is a further scope to study the subject.

Following are objectives of study.

- To study human resources Management practices prevailing in chemical industries.

- To survey the awareness in the chemical industries about HRM practices

- To identify the constraints of HRM practices in chemical industries.

3.2. Research Problem:

Literature review enable to identify gaps and also to frame research problem for the study, the research problem of the study is whether Human Resource Practices adopted in chemical industries in Navi Mumbai are adequate?

3.3. Criteria for the study:

On the basis of literature review following criteria were selected for the purpose of study

2. Recruitment and Selection

3. Training and Development

4. Performance Appraisal.

5. Communication.

6. Working Conditions.

7. Retirement Benefits.

8. Grievance Redressal.

3.4. Research Question:

Human Resource Management practices are an evolving concept different practices are invented by the organization. Whether the employees are working in chemical industries of Navi Mumbai are satisfied with the different Human Resource Management Practices followed by the organization.

3.5. Research Design Table.

Research Design.

The study is focused on Human Resource Management Practices followed in Chemical Industries in Navi Mumbai. The study depends on collection of primary as well as secondary data. Following tables presents research design applied for the study.

Table 3.1.Research design of the study.

Sr. No.	Parameters	Description.
1	Type of research	Descriptive Research
2	Nature of Research	Quantitative
3	Research Instrument	Structured Questionnaire and Interviews
4	Survey Period	2002 to 2012
5	Method of data collection.	Sample survey
6	Universe	Employees in Chemical Industries in Navi Mumbai
7	No. of Chemical Industries	82
8	Total No. of Employees in all companies	Approx 16000
9	No of Companies selected	20
10	Sample Method	Mean Method by applying formula $$N = \frac{z^2 * s^2}{e^2}$$
11	Data Collection source.	Primary and secondary Source
12	Primary source	Structured Questionnaire and Interviews
13	Secondary Sources.	Books, references, Periodicals, Project Reports, News Papers and Interviews.
14	Tools for data analysis	Tabulation, Graphs,
15	Statistical Software	SPSS
16	Test	KMO and Bartlett's Test, Spearman, Cramers, Chi - Square, Binomial

(Source: Primary data)

3.6. Research Methodology and Techniques.

The research is based on Primary as well as secondary data. Primary data is collected through sample survey through questionnaire and secondary data is collected through Books, Journals, Research Papers, Websites etc.

3.6.1 Primary Data

The research is based on sample survey method. It is focused on responses collected from sample i.e. employees of chemical industries in Navi Mumbai. Total 82 companies are operating in the area of which 20 companies are selected to collect sample for the study.

The companies who are member of Thane Belapur Industrial Association and satisfying Following conditions are selected to collect sample

     A. Companies with ISO Certification

     B. Recipient of Awards

     C. Environmental conscious

     D. Adoption of Corporate Social Responsibility

     E. Turnover

     F. Shares

     G. More than 100 employees

     H. Involved in Import and Export

Following twenty Large Scale Chemicals Industries are selected for study on the basis of above conditions

Table 3.2 List of selected companies

Sr. No.	Name of the Chemical Company
1	Amines and Plasticizes ltd.
2	Associated Chemicals
3	Bharat Mercantile Company
4	Bombay Ammonia Chemicals co.
5	CMP Pvt. Ltd.
6	Hebbar Chemicals P. Ltd.
7	Henkel Adhesive Technologies (i) Ltd.
8	Hindustan Platinum P. Ltd.
9	Indl. Minerals and Chem. Pvt.Co.P. ltd.
10	Lubrizol India Pvt. Ltd.
11	Mazda Colours Ltd
12	MesukaEngineering Co. P. Ltd.
13	Metcon Coatings and Chemicals (p) Ltd.
14	NOCIL
15	Pfizer Ltd.
16	RPG Life Sciences Ltd.
17	Sara Chem. (I) P. Ltd.
18	Savita Oil Technologies ltd.
19	Tytan Organic P. Ltd.
20	Zydusnycomed Healthcare P. Ltd.

(Source: Primary Data)

3.6.1. A) Sample size computation

The population for the current study comprised of 82 chemicals companies, in order to select the right portion of the population as sample approximately 25% of the companies were randomly chosen for selection of sample elements. Hence 20 companies were covered under the study. Sample size of 300 was determined using sample size determination using mean method. Following discussion provides explanation and justification of sample size determination. These

300 respondents were picked equal proportion from each of the 20 companies, i.e. 15 respondents each from 20 companies.

Sample size = 300 employees of 20 chemical companies from Navi Mumbai.

3.6.1. B) Sample size determination using mean method

Sample size was determined using sample size determination by mean method.

Variables in study were measured using a 5-point measurement scale, hence the mean method was adopted.

Formula

$$N = \frac{z^2 * s^2}{e^2}$$

Where, 'z' is the standard score associated with confidence level (95% in the current case). Hence standard scores equal to 1.96 (borrowed from normal table)

'S' is the variability in the data set, computed as a ratio of range / 6. Range is equal to 5-1 = 4 (the difference between minimum and maximum value in the 5point scale). 6 refers to ±3 standard deviation values on the X axis of the standard normal curve, which takes in all the data set in study.

Hence S = 4/6 = 0.66

E is the tolerable error = 8% (in the current study).

Sample size n = $\frac{1.96^2 * 0.66^2}{0.08^2}$ = 261

In order to deal with non -response approximately 15 % of the sample size was taken as a buffer.

261*15%= 39

Therefore 261+39=, 300

Therefore 300 is the sample size that was taken into consideration

3.6.2 Secondary Data

Secondary Data was collected through various books, references, journals, magazines, newspaper articles, periodicals and websites.

3.6.3. Statistical Techniques Used.

Different statistical techniques are used for analysis of data and validation of hypotheses it includes tabulation, graphs, KMO and Bartlett's Test, Spearman, Cramers, Chi - Square, Binomial Test

3.7. Hypothesis:

H1:"Existing Human Resource Management Practices of Chemical Industries in Navi Mumbai are healthy (adequate)"

H2: "Employees retention is a result of Healthy Human Resource Management Practices in Chemical Industries in Navi Mumbai."

H3: "Employee productivity is a result of healthy Human Resources Management Practices in Chemical Industries in Navi Mumbai."

3.8. Limitations of the study

1. Study period is only 2002 to 2012.
2. Geographical Limitations: The study is restricted to chemical Industries situated in Thane Belapur MIDC Area in Navi Mumbai.

3.9. Contribution of Research Work.

The study will be beneficial in following ways

1. It will be beneficiary for all industries in general and Industries in Navi Mumbai will be specifically benefitted as the study reveal gaps and strong aspects of Human Resource Practices followed by Large Chemical Industries in Navi Mumbai.

2. It will help the government to identify if any corrective action is required

3. It will help the students of MMS, BMS and students of other faculties as it provide a real life picture of employee situation

4. It will academicians as it could be a good case study on Human Resource Practices followed in Navi Mumbai specifically in chemical industries.

5. It will help management of the companies to identify causes of attrition among the employees and to take suitable action for the same.

3.10. Conclusion:

The above research design and methodology is suitable and appropriate for the title of research topic selected which will also useful to the researcher to conduct research in a structured way which is presented in the study and data analysis to draw appropriate conclusions and suggestions.

Data Analysis.

4.1   Introduction

4.2   Sample Profile

4.3   Reliability Analysis.

4.4   Data Analysis.

4.5   Conclusion

4.1. Introduction:

Researcher has compiled information from 300 employees of selected chemical industries in Navi Mumbai. The information is collected through a questionnaire which is enclosed in Annexure 1 of the thesis. The collected data is analyzed to find out fact. The analyses are presented below.

4.2. Sample Profile

Frequency distribution for Gender, Marital Status, Family Size, Age, and Educational Qualification. Gender is measured using two response options (1 = male, 2 = female), Marital Status is measured using two response options (1 = married, 2 = unmarried)

From the above analysis sample profile is obtained which is represented in following Table

Table 4.1 Profile of the sample

Sr. No	Variable	Response	Options	Frequency
1	Gender	Female	20	6.7
		Male	280	93.3
		Total	300	100.0
2	Marital Status	Married	270	90.0
		Unmarried	30	10.0
		Total	300	100.0

Sr. No	Variable	Response	Options	Frequency
3	Family Structure	Joint	79	26.3
		Nuclear	221	73.7
		Total	300	100.0
4	Age (Binned)	20 and less than 25	18	6.0
		25 and less than 35	48	16.0
		35 and less than 40	169	56.3
		40 and less than 45	42	14.0
		45 and less than 50	21	7.0
		50 and above	2	.7
		Total	300	100.0
5	Educational Qualification	Graduate	130	43.3
		Undergraduate	170	56.7
		Total	300	100.0

(Source: Primary Data)

Interpretation.

The above table affirms that of the 300 respondents 93.3% are male and 6.7% are female. Hence the majority respondents are male.

Out of 300 respondents 90% respondents are married and 10% respondents are unmarried. Hence the majority respondents are married.

- Out of 300 respondents 26.3% respondents have a joint family and 73.7% respondents have a nuclear family. Hence the majority respondents have a nuclear family.

- Out of 300 respondents 6% are between the age group20 and less than 25 16% are between the age group 25 and less than 35, 35 and less than 40 age group are 56.3%, 40 and less than 45 age group are 14.0%, 45 and less than 50 age group are 7.0% and 50 and above age group are .7%. Hence majority respondents are 35 and less than 40 age group family.

- Out of 300 respondents 43.3% respondents are Graduates and 56.7% respondents are Under Graduate. Hence the majority respondents are undergraduates.

4.3 Reliability Analysis

Reliability is the ability of the scale to produce consistent result. In the current study, there liability is confirmed using test-retest method. Test-retest method is quite in practice and state forward method of validating reliability. In this method, the same instrument is administrated on the same set of respondents on two different occasions. The two set of responses are then correlated to assess reliability.

Spearman's rho rank order correlation is use to correlate interval scale variables and phi and Cramer's V is to correlate categorical variables. Spearmen's correlation coefficient value more than 0.9 and Phi and Cramer's V value more than 0.5 indicate reliability

Table: 4.2. Profile of Correlation, Coefficient (test and Retest Method)

Sr.No	Correlation Coefficient	P Value	Result
01	Which are the Sources used to get manpower supply in the organisation? (test) ⟷ Which are the Sources used to get manpower supply in the organisation? (Retest)	Cramer's V= 0.806	Reliability Supported
02	What internal source is adopted by your company from the following? (test) ⟷ What internal source is adopted by your company from the following?(retest)	Cramer's V= 0.942	Reliability Supported
03	What external sources are opted from the followings?(test) ⟷ What external source are opted from the followings?(retest)	Cramer's V= 0.928	Reliability Supported

04	What are the channels chosen your organisation for the selection of the employees?(test) ⟷ What are the channels chosen your organisation for the selection of the employees?(retest)	Cramer's V= 0.819	Reliability Supported
05	Whether all categorical / cadres of employees are confirmed in the probation period itself and also at the same time? (test) ⟷ Whether all categorical / cadres of employees are confirmed in the probation period itself and also at the same time?(retest)	Cramer's V= 0.866	Reliability Supported
06	Which is the following determinant estimated to regularize new appointments / trainees? (test) ⟷ Which is the following determinant estimated to regularize new appointments / trainees? (retest)	Cramer's V= 0.822	Reliability Supported
07	What are the means adopted for the placement of selected candidate? (test) ⟷ What are the means adopted for the placement of selected candidate? (retest)	Cramer's V= 0.806	*Reliability Supported*
08	Does your organisation provide induction training to the employees of all cadre?(test) ⟷ Does your organisation provide induction training to the employees of all cadre?(retest)	Cramer's V= 0.814	Reliability Supported
09	What are methods adopted for preparing executives for challenges and responsibilities? (test) ⟷ What are methods adopted for preparing executives for challenges and responsibilities?(retest)	Cramer's V= 0.956	Reliability Supported

10	If there is any alteration in the job description of employees during the training?(test) ⟷ If there is any alteration in the job description of employees during the training?(retest)	Cramer's V= 0.444	Reliability Supported
11	What is the methods used for coaching your executives to learn and cope with the technological changes in your industries?(test) ⟷ What is the methods used for coaching your executives to learn and cope with the technological changes in your industries?(retest)	Cramer's V= 0.913	Reliability Supported
12	Is there any Human Resource Management system exit in your organisation? (test) ⟷ Is there any Human Resource Management system exit in your organisation?(retest)	Cramer's V= 0.808	Reliability Supported
13	What is the pattern of the updating of information?(test) ⟷ What is the pattern of the updating of information?(retest)	Cramer's V= 0.903	Reliability Supported
14	The data of Human Resource Information system is employed for…(rest) ⟷ The data of Human Resource Information system is employed for…. (retest)	Cramer's V= 0.946	Reliability Supported
15	Who shoulders the responsibilities of initiation and execution of employee's performance appraisal?(test) ⟷ Who shoulders the responsibilities of initiation and execution of employee's performance appraisal?(retest)	Cramer's V= 0.922	Reliability Supported

16	Whether performance appraisal system is similar for all categories of officers?(test) ←——→ Whether performance appraisal system is similar for all categories of officers? (retest)	Cramer's V= 0.852	Reliability Supported
17	How is the performance appraisal system in your organisation? (test) ←—→ How is the performance appraisal system in your organisation?(retest)	Cramer's V= 0.876	Reliability Supported
18	For which administrative purpose the performance appraisal system is utilized? (test) ←—→ For which administrative purpose the performance appraisal system is utilized? (retest)	Cramer's V= 0.873	Reliability Supported
19	When doses the organisation take action on the appraisal report?(test) ←——→ When doses the organisation take action on the appraisal report?(retest)	Cramer's V= 0.879	Reliability Supported
20	Does any separate training department exist in your organisation? (test) ←—→ Does any separate training department exist in your organisation? (retest)	Cramer's V= 0.729	Reliability Supported
21	How does the organisation encourage employees to sharpen their skills and performance? (test) ←—→ How does the organisation encourage employees to sharpen their skills and performance? (retest)	Cramer's V= 0.956	Reliability Supported

22	What are the factors that assist you in identification training needs of your manager? (test) ←→ What are the factors that assist you in identification training needs of your manager? (retest)	Cramer's V= 0.917	Reliability Supported
23	Tick the Career planning opportunities presented to the employees in your organisation? (test) ←→ Tick the Career planning opportunities presented to the employees in your organisation? (retest)	Cramer's V= 0.915	Reliability Supported
24	Do you have Grievance Redressal cell in your Organisation? (test) ←→ Do you have Grievance Redressal cell in your Organisation? (retest)	Cramer's V= 0.916	Reliability Supported
25	Does the Composition of Grievance Redressal Cell Committee have employees? (test) ←→ Does the Composition of Grievance Redressal Cell Committee have employees? (retest)	Cramer's V= 0.830	Reliability Supported
26	Are you satisfied with the functioning and decisions of Grievance redressal committee?(test) ←→ Are you satisfied with the functioning and decisions of Grievance redressal committee? (retest)	Cramer's V= 0.664	Reliability Supported
27	How do you thrust of Grievance redressal on production? (test) ←→ How do you thrust of Grievance redressal on production? (retest)	Cramer's V= 0.802	Reliability Supported

28	Does your organisation provide the past retirement benefits? (test) ⟷ Does your organisation provide the past retirement benefits? (retest)	Cramer's V= 0.814	Reliability Supported
29	Does the Grievance Redressal cell get nomination from the employees? (test) ⟷ Does the Grievance Redressal cell get nomination from the employees? (retest)	Cramer's V= 0.678	Reliability Supported
30	Any Special awards received by your Company? (test) ⟷ Any Special awards received by your Company? (retest)	Cramer's V= 0.583	Reliability Supported
31	Do you take any care about environmental issues? (test) ⟷ Do you take any care about environmental issues? (retest)	Cramer's V= 0.590	Reliability Supported
32	Any specific action is taken on Chemical outlets? (test) ⟷ Any specific action is taken on Chemical outlets? (retest)	Cramer's V= 0.820	Reliability Supported
33	Is there any Notice board is installed to inform the employees about hazardous and fatal chemicals in the premises of the organisation? (test) ⟷ Is there any Notice board is installed to inform the employees about hazardous and fatal chemicals in the premises of the organisation? (retest)	Cramer's V= 0.864	Reliability Supported

34	Which sort of equipment / accessories are allotted to the workers in your organisation? (test) ⟷ Which sort of equipment / accessories are allotted to the workers in your organisation? (retest)	Cramer's V= 0.802	Reliability Supported
35	Are you contended with the equipments supplied? (test) ⟷ Are you contended with the equipments supplied? (retest)	Cramer's V= 0.885	Reliability Supported
36	Are there internal facilities available? (test) ⟷ Are there internal facilities available? (retest)	Cramer's V= 0.866	Reliability Supported
37	. Do the employees of chemical industries Units are made aware about anticipate injuries?(test) ⟷ Do the employees of chemical industries Units are made aware about anticipate injuries?(retest)	Cramer's V= 0.921	Reliability Supported
38	Whether the employee's medical examination of the employees are regularlyconducted? (test) ⟷ Whether the employees medical examination of the employees are regularlyconducted? (retest)	Cramer's V= 0.922	Reliability Supported
39	The top management believes that Human Resource are an extremely important resource and that they have to be treated more humanly and gracefully. (test) ⟷ The top management believes that Human Resource are an extremely important resource and that they have to be treated more humanly and gracefully. (retest)	Cramer's V= 0.952	Reliability Supported

40	Development of subordinate is treated as an organic part of their job by the managers / officers here. (test) ⟷ Development of subordinate is treated as an organic part of their job by the managers / officers here. (retest)	Cramer's V= 0.926	Reliability Supported
41	Does the management believe that Human Resources are significant, and they should be treated on human ground? (test) ⟷ Does the management believe that Human Resources are significant, and they should be treated on human ground? (retest)	Cramer's V= 0.929	Reliability Supported
42	Senior Officers are pro in assisting their subordinates in their work. (test) ⟷ Senior Officers are pro in assisting their subordinates in their work. (retest)	Spearman coefficient = 0.935	Reliability Supported
43	People in this company are advantageous to each other. (test) ⟷ People in this company are advantageous to each other.(retest)	Spearman coefficient = 0.971	Reliability Supported
44	Senior mentor juniors for the future responsibilities they are likely to shoulder. (test) ⟷ Senior mentor juniors for the future responsibilities they are likely to shoulder. (retest)	Spearman coefficient = 0.988	Reliability Supported

45	The Top management of the company acknowledges and nurtures the potential of the employees. (test) ←→ The Top management of the company acknowledges and nurtures the potential of the employees. (retest)	Spearman coefficient = 0.968	Reliability Supported
46	The supervising officers always appreciate the effective work done by employees. (test) ←→ The supervising officers always appreciate the effective work done by employees(retest)	Spearman coefficient = 1.000	Reliability Supported
47	People in the organisation do not carry any fixed mental impression about each other(test) ←→ People in the organisation do not carry any fixed mental impression about each other(retest)	Spearman coefficient = 0.982	Reliability Supported
48	Mistakes of employees are conveyed in a mild manner. (test) ←→ Mistakes of employees are conveyed in a mild manner.(retest)	Spearman coefficient = 0.979	Reliability Supported
49	The behaviour feedback informed to employees is taken seriously by them(test) ←→ The behaviour feedback informed to employees is taken seriously by them. (retest)	Spearman coefficient = 0.989	Reliability Supported
50	Employees in the organisation underline the potential and weakness their supervising.(test) ←→ Employees in the organisation underline the potential and weakness their supervising. (retest)	Spearman coefficient = 1.000	Reliability Supported

51	When organisation sponsors employees for training, they learn from it seriously. (test) ⟷ When organisation sponsors employees for training, they learn from it seriously. (retest)	Spearman coefficient = 0.963	Reliability Supported
52	Employers sponsor training programme according to the training needs of employees. (test) ⟷ Employers sponsor training programme according to the training needs of employees. (retest)	Spearman coefficient = 0.984	Reliability Supported
53	Peoples are trustworthy towards each other in the organisation. (test) ⟷ Peoples are trustworthy towards each other in the organisation.(retest)	Spearman coefficient = 0.952	Reliability Supported
54	Employees open mindedly express their views with the supervisors. (test) ⟷ Employees open mindedly express their views with the supervisors. (retest)	Spearman coefficient = 1.000	Reliability Supported
55	Employees open mindedly express their views with the subordinates.(test) ⟷ Employees open mindedly express their views with the subordinates. (retest)	Spearman coefficient = 0.989	Reliability Supported
56	Delegation of authority is a normal procedure in the organisation to motivate the subordinates in dealing with higher responsibilities.(test) ⟷ . Delegation of authority is a normal procedure in the organisation to motivate the subordinates in dealing with higher responsibilities.(retest)	Spearman coefficient = 0.940	Reliability Supported

57	Team spirit is of higher order in this organisation.(test) ⟷ Team spirit is of higher order in this organisation.(retest)	Spearman coefficient = 0.970	Reliability Supported
58	When a problem crops ups, it is discussed frankly rather than back-biting and accusation. (test) ⟷ When a problem crops ups, it is discussed frankly rather than back-biting and accusation. (retest)	Spearman coefficient = 0.929	Reliability Supported
59	Juniors are helped with career opportunities by the senior officers. (test) ⟷ Juniors are helped with career opportunities by the senior officers. (retest)	Spearman coefficient = 1.000	Reliability Supported
60	The organisation informs the future plan to Management cadre so that they can nurture Juniors for the same. (test) ⟷ The organisation informs the future plan to Management cadre so that they can nurture Juniors for the same. (retest)	Spearman coefficient = 0.976	Reliability Supported
61	Job- rotation facilities the advancement of employees.(test) ⟷ Job- rotation facilities the advancement of employees.(retest)	Spearman coefficient = 0.949	Reliability Supported

(Source: Primary Data)

From the above table, it can be seen that all variables have reliability score above the threshold range. Hence reliability is supported.

Table : 4.3. HRM Practices followed in selected Samples.

Sr No.	Name of the Industries	HRM Practices / Parameters						
		1	2	3	4	5	6	7
1	Amines and Plasticizes ltd.	√	√	√		√	√	√
2	Associated Chemicals	√	√	√	√	√	√	--
3	Bharat Mercantile Company	√	√	√	--	√	√	√
4	Bombay Ammonia Chemicals co.	√	√	√	√	√	√	√
5	CMP Pvt. Ltd.	√		√	√	√	√	--
6	Hebbar Chemicals P. Ltd.	√	√	√	√	√	--	√
7	Henkel Adhesive Technologies (i) Ltd.	√	√	√	√		√	√
8	Hindustan Platinum P. Ltd.	√	√	√	√	√	√	√
9	Indl. Minerals and Chem. Pvt. Co.P. ltd.	√	√	√	√	√	√	√
10	Lubrizol India Pvt. Ltd.	√	√	√	√	√	√	√
11	Mazda Colours Ltd	√	√	√	√	√	√	--
12	Mesuka Engineering Co. P. Ltd.	√	√	√	--	√	√	√
13	Metcon Coatings and Chemicals (p) Ltd.	√	√	√	√	√	--	√
14	NOCIL	√	√	√	√	√	√	√
15	Pfizer Ltd.	√	√	√	√	√	√	√
16	RPG Life Sciences Ltd.	√	√	√	√	√	√	√
17	Sara Chem. (I) P. Ltd.	√	√	√	√	√	√	√
18	Savita Oil Technologies ltd.	√	√	√	√	√	√	√
19	Tytan Organic P. Ltd.	√	√	√	√	√	√	√
20	Zydusnycomed Healthcare P. Ltd.	√	√	√	√	√	--	√

HRM Practices / Parameters.

1. Recruitment and Selection. 2. Training and Development. 3. Performance Appraisal.

4. Communication. 5. Working Conditions. 6. Retirement Benefits. 7. Grievance Redressal

4.5. Data Analysis

In the data analysis the following questions added in the study.

Q.1.Which are the Sources used to get manpower supply in the organisation?

Employees of chemical industries were asked to tell about source of manpower supply in their industries. They were give three response options; internal sources, external source and internal and external sources both.

This question was asked to understand sources of manpower performed by chemical industries in Navi Mumbai.

Results of data analysis are presented in the following frequency table and bar chart.

Table: 4.4. Sources of Manpower supply.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Internal source	53	17.7	17.7	17.7
	External source	53	17.7	17.7	35.3
	Internal and external source	194	**64.7**	**64.7**	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.1. Sources of manpower supply
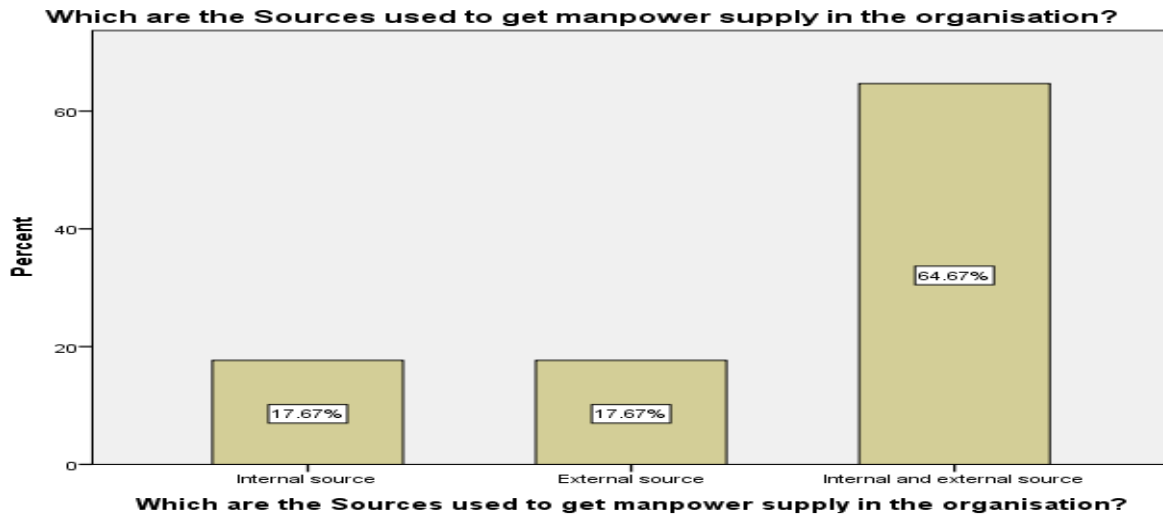
Which are the Sources used to get manpower supply in the organisation?

(Source: Primary Data)

From the above frequency distribution table and bar chart it can be pointed out that out of 300 respondent **64.7%** said that they have both internal and external manpower supply, 17.7 said they used internal source of manpower supply and remaining 17.7& said they used source of manpower supply.

Hence majority of company used both internal and external sources of manpower supply.

Q-2. **What internal source is adopted by the company from the following**?

Employees of chemical industries were asked to tell about **among the internal source which of the following is used in your company**. They were provided with four response options by internal advertising, by promotions, by transfer from unit of department and any other method.

This question was asked to understand sources of manpower in the organization performed by chemical industries in Navi Mumbai.

Results of data analysis are presented in the following frequency table and bar chart.

Table: 4.5. Internal Source used in organization.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	By internal advertising	77	25.7	25.7	25.7
	By promotion	90	**30.0**	30.0	55.7
	By transfer from other unit or department	80	26.7	26.7	82.3
	Any other method	53	17.7	17.7	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.2. Internal Source used in organization
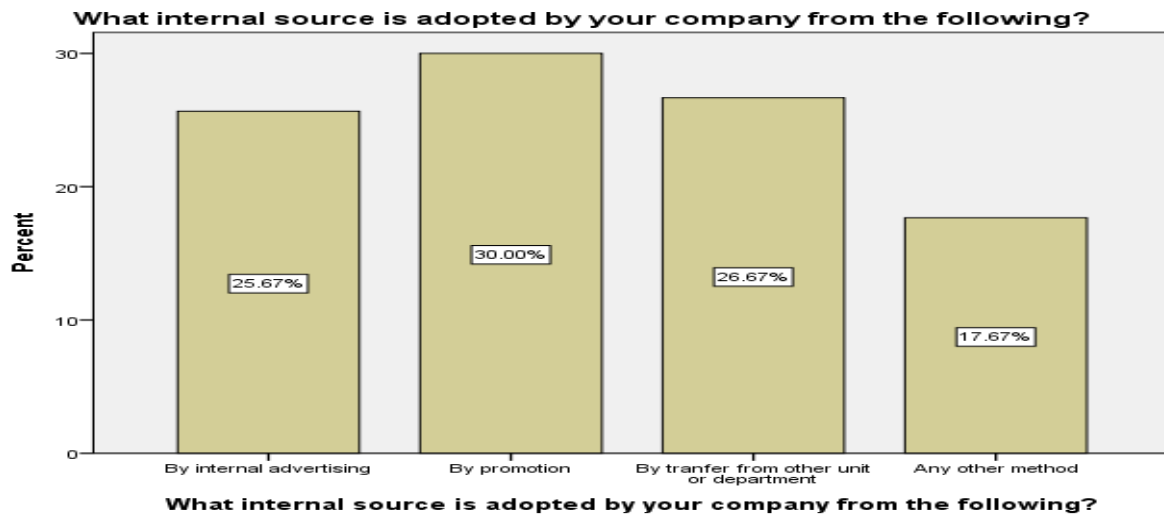
(Source: Primary Data)

From the above frequency distribution table and bar chart it can be designed that out of 300 respondent 25.67% said that they have source of internal advertising, **30%** said by promotion, 26.67 % said by recruitment by transfer other unit or department and 17.67 % said any other method means organization used deferent methods in their organization .

Hence majority of company used the recruitment system by promotions in the organizations.

Q-3. What external sources are opted from the followings?

Employees of chemical industries were asked to inform about **among the external source which of the following is used in suitable in organization**. They were furnished five response options given through employment exchange, through open advertising in leasing news papers, through campus recruitment, on deputation, Ex- serviceman agencies, and any other options.

This question was asked to understand sources of manpower in the organization performed by chemical industries in Navi Mumbai.

Results of data analysis are presented in the following frequency table and bar chart.

Table: 4.6. Suitable external sources

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Through employment exchange	54	18.0	18.0	18.0
	Through open advertisement in leading news papers	66	22.0	22.0	40.0
	Through campus recruitment	75	**25.0**	25.0	65.0
	On deputation	67	22.3	22.3	87.3
	Ex serviceman agencies	37	12.3	12.3	99.7
	Any other method	1	.3	.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.3. Suitable External Sources.

What external source are opted from the followings. (Mark as many as applicable)

Source	Percent
Any other method	0.33%
Ex serviceman agencies	12.33%
On deputation	22.33%
Through campus recruitment	25.00%
Through open advertisement in leading news papers	22.00%
Through employment exchange	18.00%
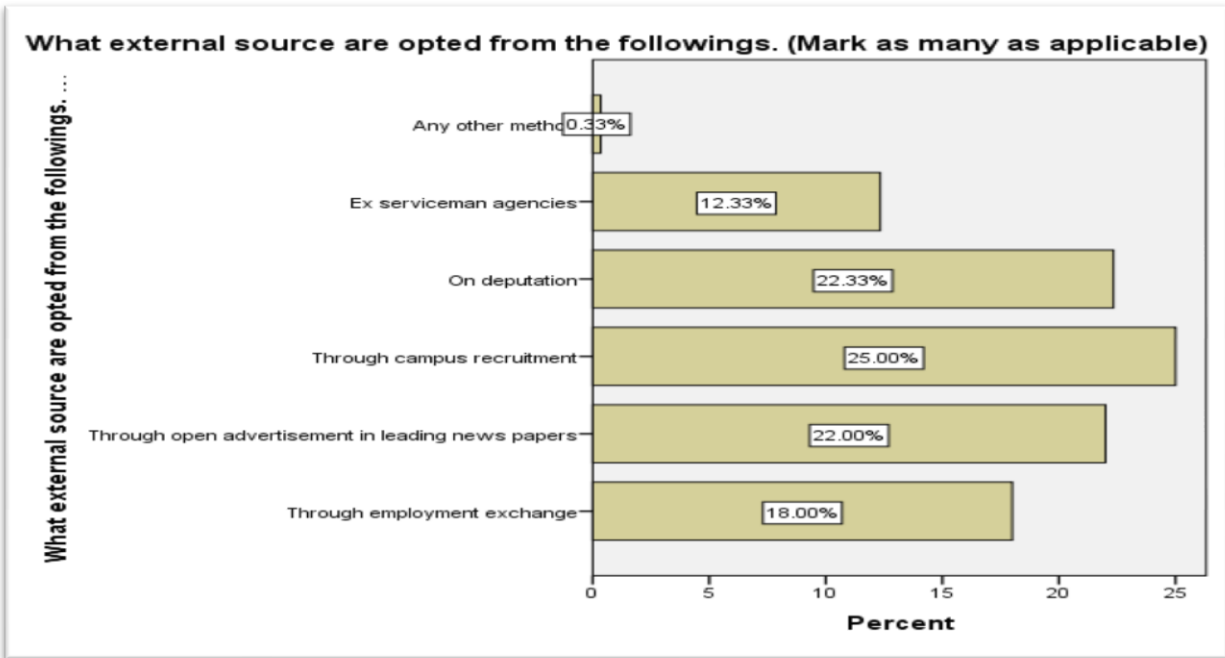
(Source: Primary Data)

From the above frequency distribution table and bar chart it can be specified that out of 300 respondent 18% said that they have source of through employment exchange, 22% said through open advertising in leading news papers, **25%** said through campus recruitment, 22.33% said on deputation, 12.33% said Ex-serviceman and 0.33% said any other method like other recruitment methods which is on line and communication methods etc.

Hence most of the companies give preference to campus recruitment as external source of the recruitment.

Q-4.What are the channels chosen your organisation for the selection of the employees?

Employees of chemical industries were asked to communicate about what are the channels chosen your organisation for the selection of the employees? They were allotted response options given through internal (promotion, transfer, or reference), second external (advertising in news papers, advertising in agencies) and third option both.

This question was asked to comprehend recruitment sources of manpower in external and internal source in the organization performed by chemical industries in Navi Mumbai.

Results of data analysis are presented in the following frequency table and bar chart.

Table: 4.7. What are the channels chosen your organisation for the selection of the employees?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Internal (promotion, transfer, references)	122	**40.7**	40.7	40.7
	External (advertising in news papers, advertising agencies)	97	32.3	32.3	73.0
	Both	81	27.0	27.0	100.0
	Total	300	100.0	100.0	

(Source: Praimary Data)

Graph: 4.4..What are the channels chosen your organisation for the selection of the employees?
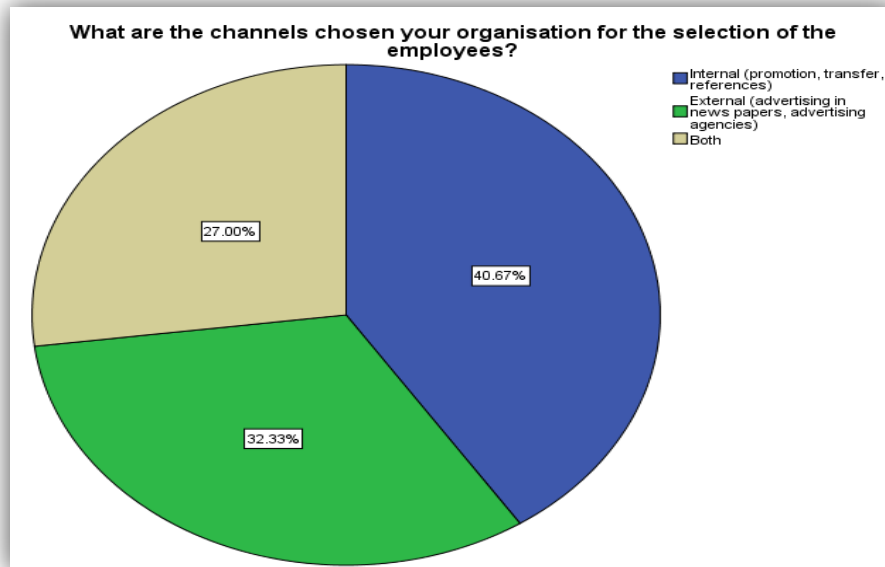
(Source: Primary Data)

From the above frequency distribution table and pie chart, it can be specified that out of 300 respondents **40.7%** said that internal (promotion, transfer, or reference), 32.3%said that the external (advertising in newspapers, advertising in agencies) and remaining 27% respondent said option both.

Hence majority of company used the recruitment system was internal (promotion, transfer, or reference) in the organizations.

Q-5.Whether all categorical / cadres of employees are confirmed in the probation period itself and also at the same time?

Employees of chemical industries were requested to tell about **in the probation period before confirmation same for all categories of employees?**

They were facilitated two response options **Yes and No**. This question was asked to understand whether all categories employees are given confirmation order or not in the organization by chemical industries in Navi Mumbai.

Results of data analysis are presented in the following frequency table and pie chart.

Table: 4.8. The probation period before confirmation same for all categories of employees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	145	48.3	48.3	48.3
	No	155	**51.7**	51.7	100.0
	Total	300	100.0	100.0	

(*Source: Primary Data*)

Graph: 4.5. Whether all categorical / cadres of employees are confirmed in the probation period itself and also at the same time?.

Whether all categorical / cadres of employees are confirmed in the probation period itself and also at the same time?

- ■ Yes
- ■ No

51.67%   48.33%
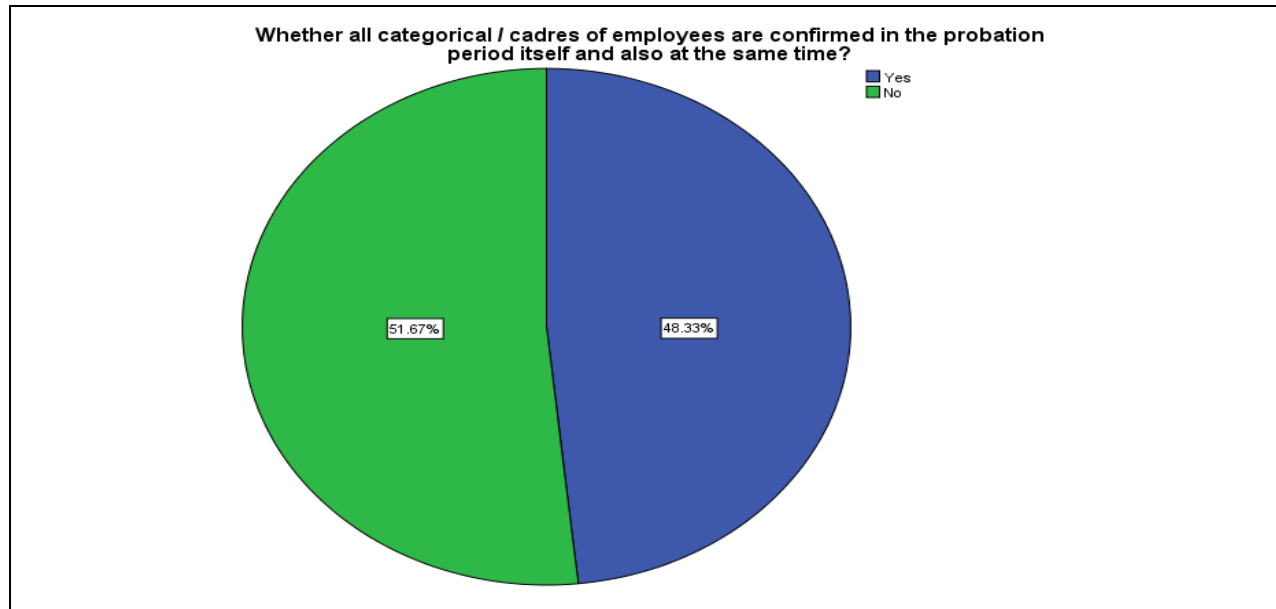
From the above frequency distribution table and pie chart, it can be confirmed that out of 300 respondents **51.67%** said the probation period before confirmation is not same for all categories of employees and remaining 48.33% said yes.

Hence majority of company the probation period is not given in the organization.

Q-6.Which is the following determinant estimated to regularize new appointments / trainees?

Employees of chemical industries were asked to request inform about which is the following determinant estimated to regularize new appointments / trainees? They were provided with three options completion of probation period, satisfactory performance during the probationary period and any other. This question was asked to understand whether employees of all categories have regularization of these appointments or not in the chemical industries in Navi Mumbai.

Results of data analysis are presented in the following frequency table and pie chart.

Table: 4.9. The determinant estimated to regularize new appointments / trainees.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completion of promotion period	142	47.3	47.3	47.3
	Satisfactorily performance during the probation period	149	**49.7**	49.7	97.0
	Any other	9	3.0	3.0	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

*Graph:***4.6. The determinant estimated to regularize new appointments / trainees.**
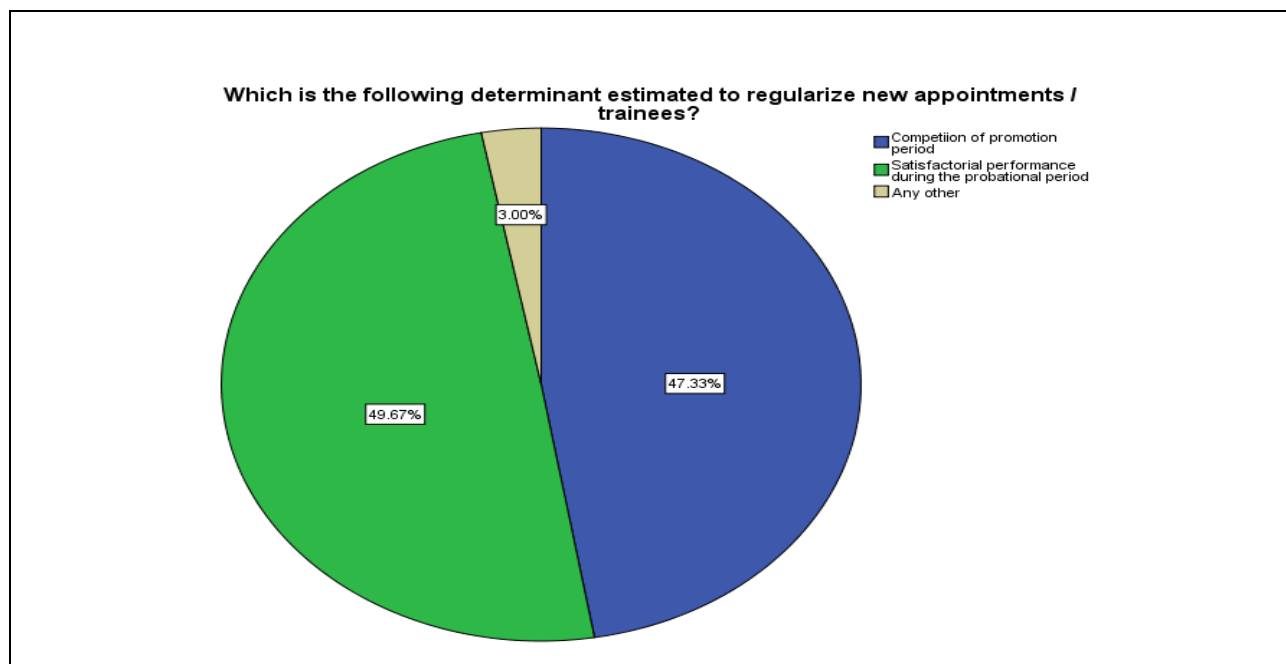
(Source: Primary Data)

From the above frequency distribution table and pie chart it can be clearly pointed out that out of 300 respondents. 47.3 % respondents said completion of probation period, **49.7 %** said satisfactory performance during the probation period, and 3% said any other option.

Hence majority of company given preference of satisfactory performance during the probation period.

Q-7.What are the methods adopted for the placement of selected candidate?

Employees of chemical industries were asked to inform about, what are the means adopted for the placement of selected candidate? Three options were given to the respondent's differential placement, signal placement, and job training. This question was asked to understand the placement systems are useful and using effectively by organization in chemical industries in Navi Mumbai.

Results of data analysis are presented in the following frequency table and pie chart.

Table: 4.10. Methods used for placement of selected candidates

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Differential placement	124	**41.3**	41.3	41.3
	Single job placement	87	29.0	29.0	70.3
	Job training	89	29.7	29.7	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.7. Methods used for placement of selected candidates
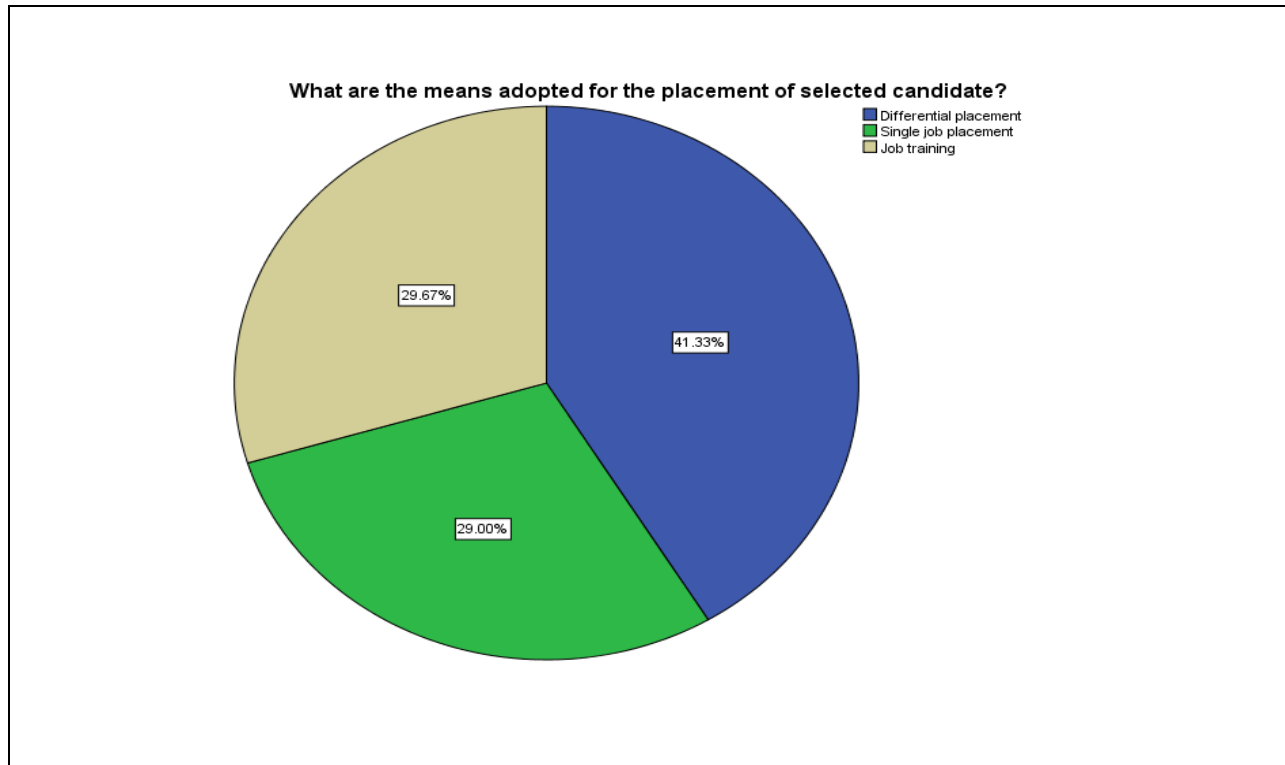
What are the means adopted for the placement of selected candidate?

- Differential placement
- Single job placement
- Job training

29.67%

41.33%

29.00%

(Source: Primary Data)

From the above frequency distribution table and pie chart it can be showed that out of 300 respondents. **41.3 %** respondents said differential placement, 29.0% said single job placement and 29.7 % said job training.

Hence majority of respondent select given preference of differential placement.

Q-8.Does your organisation provide induction training to the employees of all cadres?

Employees of chemical industries were requested to tell about, does your organisation provide induction training to the employees of all cadres? Two options were given to the respondents Yes and No. This question was asked to identify or recognize to each other and they cooperate each other at the time of working in the organization.

Results of data analysis are presented in the following frequency table and pie chart.

Table: 4.11. Induction training categories of employees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	163	**54.3**	54.3	54.3
	No	137	45.7	45.7	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.8. Induction training categories of employees
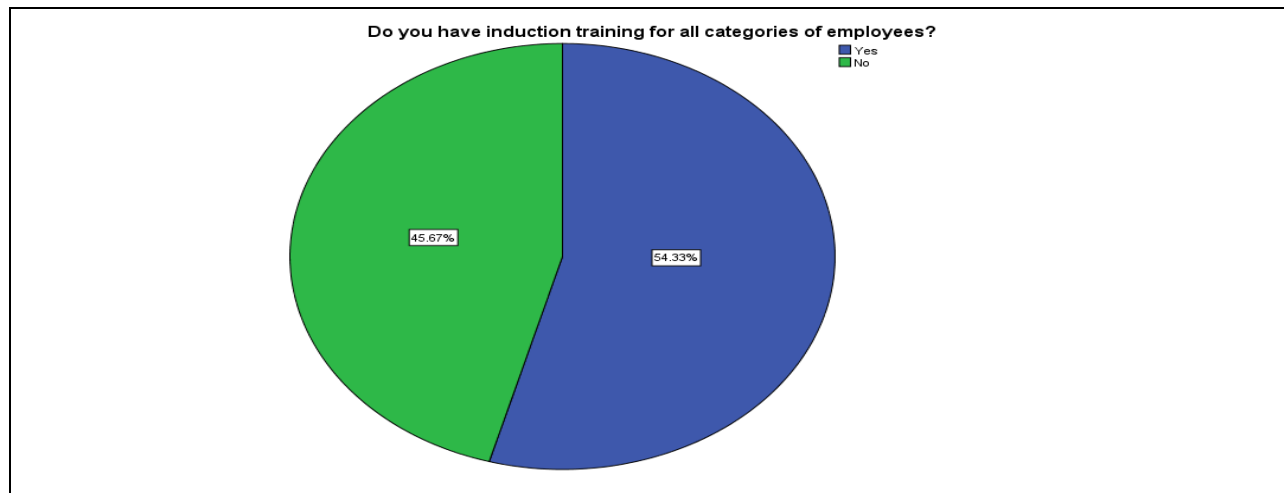
(Source: Primary Data)

From the above frequency distribution table and pie chart it can be exhibited that out of 300 respondents. **54.3 %** respondents said yes and 45.7% respondents said No.

Hence majority of respondents have confirmed induction training is available in the organization.

Q-9.What are methods adopted for preparing executives for challenges and responsibilities?

Employee of chemical industries was asked to tell about what are methods adopted for preparing executives for challenges and responsibilities? Five options were given to the respondents first

option is In house training, second In house training with external consultant, third training by external agencies, fourth on the job training, and final send abroad for training. This question was asked to executives or superior made perfect to their work and they easily take their responsibilities through this training.

Results of data analysis are presented in the following frequency table and bar chart.

Table: 4.12. Prepared the executives for new responsibilities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In house training	95	**31.7**	31.7	31.7
	In house training with external consultant	70	23.3	23.3	55.0
	Training by external agencies	53	17.7	17.7	72.7
	On the job training	40	13.3	13.3	86.0
	Send abroad for training	41	13.7	13.7	99.7
	8	1	.3	.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.9. Prepared the executives for new responsibilities.
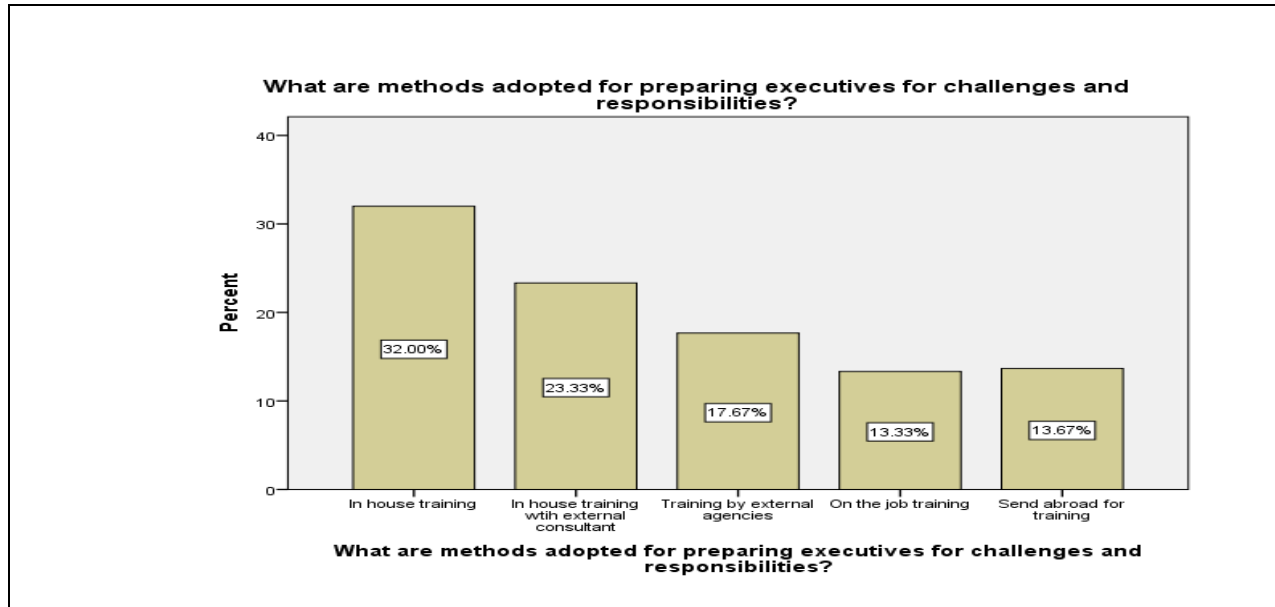
(Source: Primary Data)

From the above frequency distribution table and bar chart it can be pinpointed that out of 300 respondents. **31.7 %** respondents said in house training, 23.3% in house training with external consultant, 17.7% training by external agencies, 13.3% on the job training, and 13.7% sends abroad for training.

Hence majority of respondents have selected in house training in the organization as most common method adopted by companies for training of the executives.

*Q-10.***If there is any alteration in the job description of employees during the training?**

Employees of chemical industries were asked to inform about during the training, do you alter the job description of employees? Two options were given to the respondent's first option is yes and another is No. This question was asked to employees if the job or responsibilities change that time training is given or not.

Results of data analysis are presented in the following frequency table and pie chart.

Table: 4.13. Job description lead to training of the employees.

Do you change in job description lead to training of the employees?				
			Valid	Cumulative
	Frequency	Percent	Percent	Percent
Valid Yes	214	**71.3**	71.3	71.3
No	86	28.7	28.7	100.0
Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.10. Job description lead to training of the employees
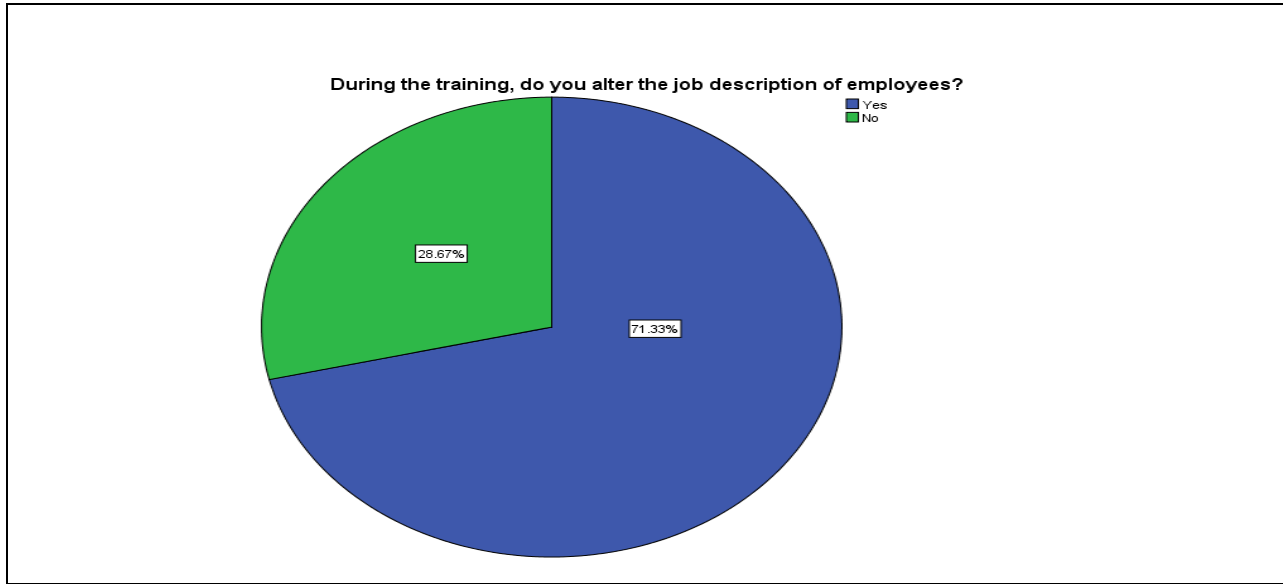
During the training, do you alter the job description of employees?

Yes
No

28.67%

71.33%

(Source: Primary Data)

From the above frequency distribution table and pie chart it can be displayed that out of 300 respondents. **71.3 %** respondents said Yes and 28.7% said No.

Hence majority of respondents have given preference to training is essential if the job or responsibility is changed.

*Q-11.***What are the methods used for coaching your executives to learn and cope up with the technological changes in your industries?**

Employee of chemical industries were asked to inform about What is the methods used for coaching your executives to learn and cope with the technological changes in your industries **Four** options were given to the respondents first option is on the job training, second In-house training, third specific training with external programs and fourth send abroad for training. This question was asked to employees to know the fatalities given to the executives to adjust and cope up with the technological changes in the industry.

Results of data analysis are presented in the following frequency table and bar chart.

Table: 4.14. Prepared methods used for coaching your executives to learn and cope with the technological changes in industry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	On the job training	107	**35.7**	35.7	35.7
	In house training programmes	82	27.3	27.3	63.0
	Specified training with external progamme	67	22.3	22.3	85.3
	Sends abroad for training	44	14.7	14.7	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.11. Prepared methods used for coaching your executives to learn and cope with the technological changes in industry

(Source: Primary Data)

From the above frequency distribution table and bar chart it can be told that out of 300 respondents. **35.7 %** respondents said on the job training, 27.3% said in house training programme, 22.3% respondent said specific training with external programme, and .14.7% said send abroad for training.

Hence majority of respondents have given preference to on the job training to cope up with new technological changes in the organization.

*Q-12.***Is there any Human Resource Information system exits in your organisation?**

Employees of chemical industries were asked to tell about, Is there any Human Resource information system exit in your organisation?

Two options were given to the respondents Yes and No. This question was put forward because the researcher wanted knows the importance of the human resource and its contribution in the development of organisation.

Results of data analysis are presented in the following frequency table and pie chart.

Table: 4.15. Human Resource information system exit in your organisation

Human Resource information system exit in your organisation				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	187	**62.3**	62.3	62.3
	No	113	37.7	37.7	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.12. Human Resource information system exit in your organisation
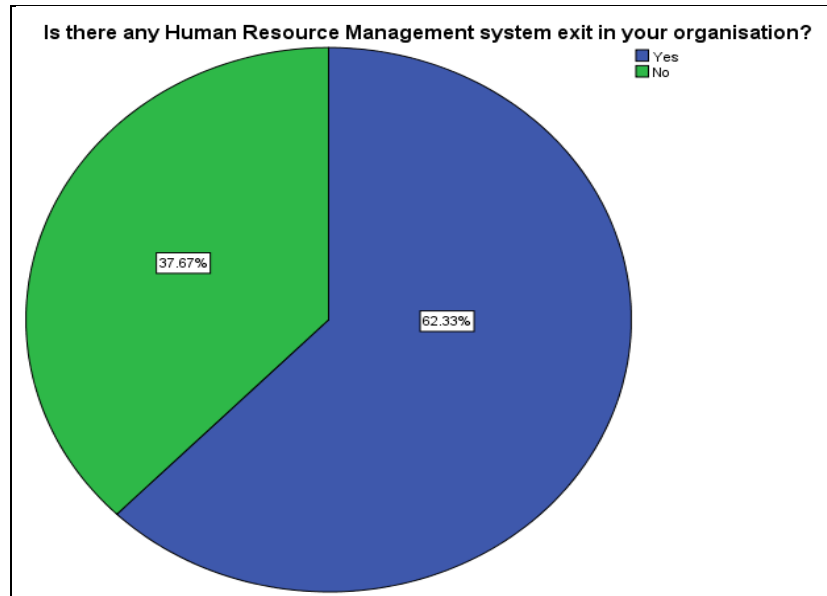
Is there any Human Resource Management system exit in your organisation?

Yes
No

37.67%

62.33%

From the above frequency distribution table and pie chart it can be exhibited that out of 300 respondents**. 62.3 %** respondents said Yes and another 37.7 respondent said NO.

Hence majority of respondents have confirmed to the existence of human resource information system in the organisation.

Q-13. **What is the pattern of updating the information?**

Employee of chemical industries were asked to tell about What is the pattern of the updating of information? Three options were given to the respondent's first option was continuously, second once in a year, and third as and when required. This question was asked to employees because the organisation will not grow there is regular update of information.

Results of data analysis are presented in the following frequency table and pie chart.

Table: 4.16. Information updated

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Continuously	134	**44.7**	44.7	44.7
	Once in a year	89	29.7	29.7	74.3
	As and when required	77	25.7	25.7	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.13. Information updated
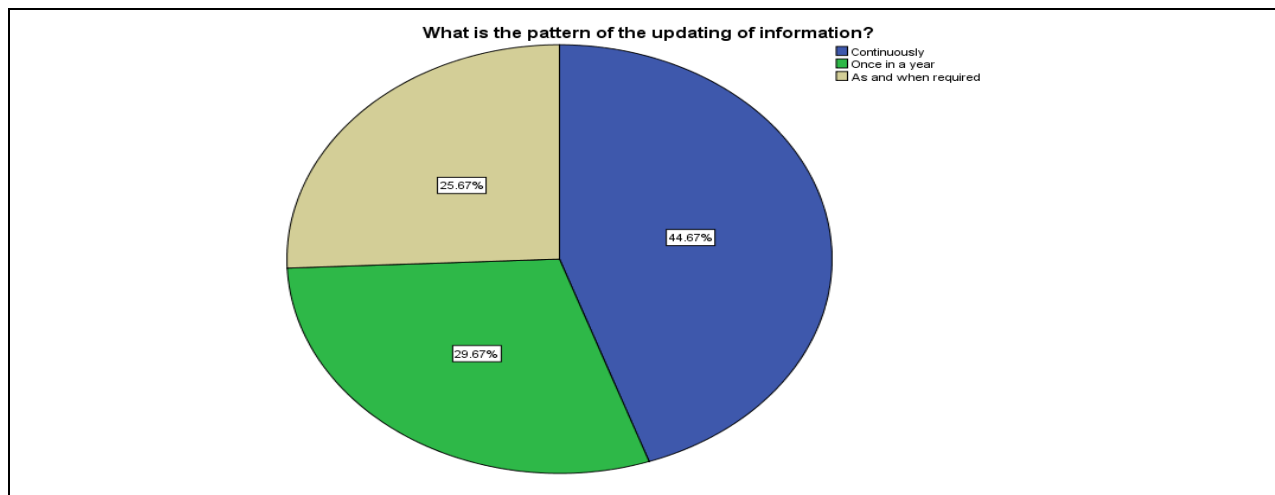
(Source: Primary Data)

From the above frequency distribution table and pie chart, it can be showed that out of 300 respondents. **44.7 %** respondents said continuous information is needed, 29.7% said once in a year, and remaining 25.7% respondent said as and when required.

Hence majority of respondents have confirmed that information updated continuously in the organization.

Q.14. **The data of Human Resource Information system is employed for….**

Employee of chemical industries were asked to communicate about the data of Human Resource Information system is employed for…. **Five options** were given to the respondent's first option was Increment; second option was Consideration for special project, Third option Training requirement, fourth Higher level job and fifth transfer. This question was asked to employees, to know the very purpose of Human Resource Information and also know the accuracy of its data.

Results of data analysis are presented in the following frequency table and bar chart.

Table: 4.17. Human Resource information utilized for

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Increment	97	32.3	32.3	32.3
	Consideration for special project	118	**39.3**	39.3	71.7
	Training requirement	70	23.3	23.3	95.0
	Higher level job	13	4.3	4.3	99.3
	Transfer	2	.7	.7	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.14. Human Resource information utilized for
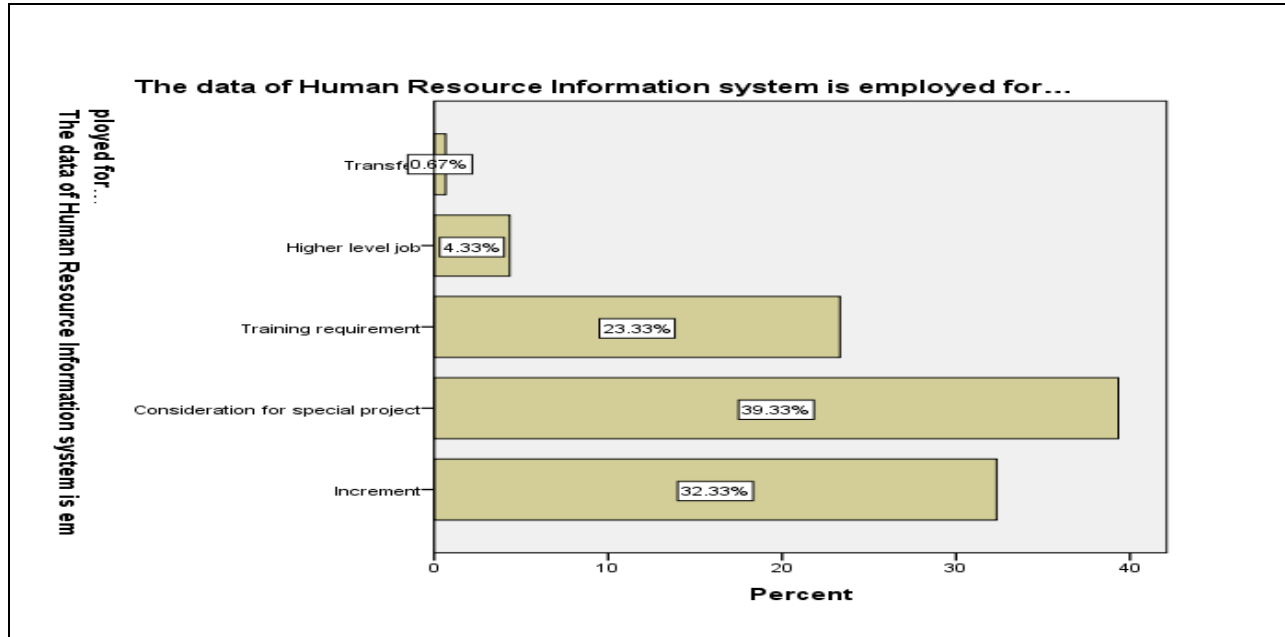
The data of Human Resource Information system is employed for...

Category	Percent
Transfer	0.67%
Higher level job	4.33%
Training requirement	23.33%
Consideration for special project	39.33%
Increment	32.33%

(Source: Primary Data)

From the above frequency distribution table and bar chart it can be showcased that out of 300 respondents. 32.3 % respondents said increments, **39.3%** said consideration for special project, 23.3.% said training requirement, 4.3% said higher level job, and 0 .7% said transfer.

As per above table it can be concluded that organization utilizes human resource information system mainly for consideration of special projects, increments, to decide training requirements and for other purposes.

*Q-15.*Who shoulders the responsibilities of initiation and execution of employee's performance appraisal?

Employee of chemical industries were asked to tell about Who shoulders the responsibilities of initiation and execution of employee's performance appraisal? **Five options** were given to the respondent's first option was immediate superior, second option was the next level of superior along with immediate superior, third option was human resource development department, fourth was committee, and fifth was any other. This question was put forward to employees to understand employees, the responsibility of initiating and ensuring the administration of performance appraisal in the organization.

Results of data analysis are presented in the following frequency table and bar chart.

Table: 4.18. The shoulders the responsibilities of initiation and execution of employee's performance appraisal.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Immediate supervisor	94	**31.3**	31.3	31.3
	The next level of superior along with immediate superior	68	22.7	22.7	54.0
	Human resource development department	76	25.3	25.3	79.3
	Committee	61	20.3	20.3	99.7
	Any other	1	.3	.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

*Graph: 4.15.*The shoulders the responsibilities of initiation and execution of employee's performance appraisal.

Who shoulders the responsibilities of initiation and execution of employee's performance appraisal?
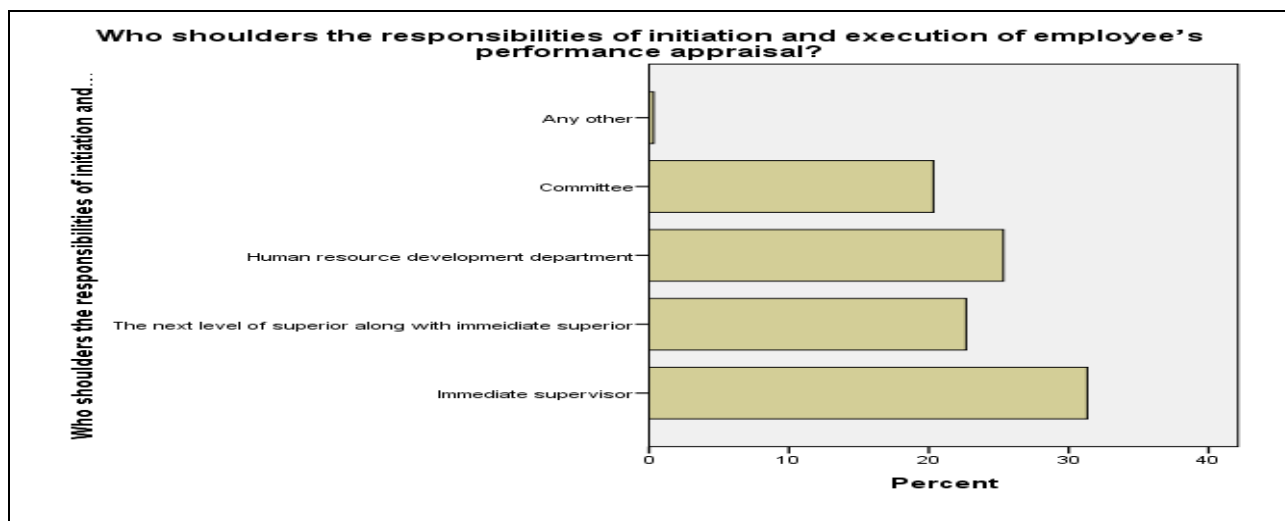
(Source: Primary Data)

From the above frequency distribution table and bar chart it can be showed that out of 300 respondents. **31.33 %** respondents said immediate superior, 22.67% said the next level of superior along with immediate superiors, 25.33% said that human resource development department, 20.33% said that committee, and 0.33% said any other.

Hence majority of respondents their immediate superior is responsible for initiation and execution of performance appraisal system.

*Q-16.***Whether performance appraisal system is similar for all categories of officers?**

Employees of chemical industries were asked to communicate about performance appraisal system is adopted by your company?

Two options were given to the respondents first option was common all level of officers and second option was different for different levels of officers. This question was asked to the employees to know what kind of performance appraisal system is used in the organisation and also to understand its applicability at all levels of organisation.

Results of data analysis are presented in the following frequency table and pie chart.

Table: 4.19.Performance appraisal system is adopted by your company

		Frequency	Percent	Valid Percent	Cumulative Percent
Performance appraisal system you follow for your organization?					
Valid	Common all level of officers	164	**54.7**	54.7	54.7
	Different for different levels of officers	136	45.3	45.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.16.Sort of performance appraisal system is adopted by your company
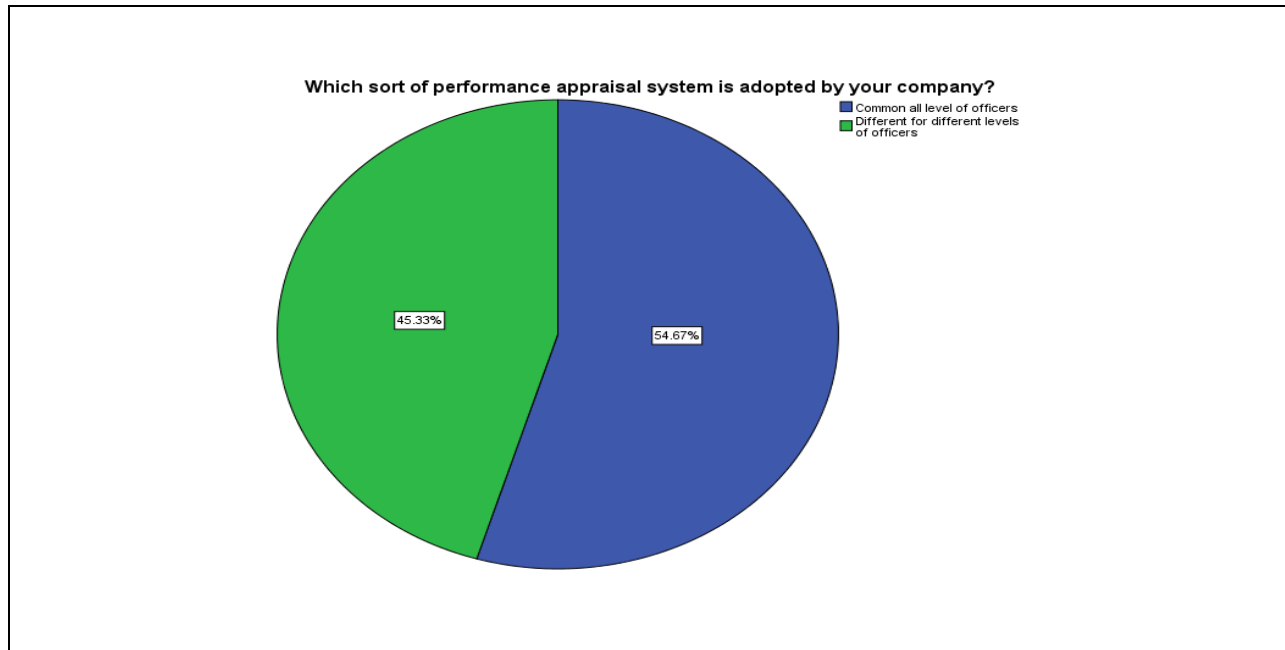
Which sort of performance appraisal system is adopted by your company?

■ Common all level of officers
■ Different for different levels of officers

45.33%   54.67%

(Source: Primary Data)

From the above frequency distribution table and pie chart it can be designed that out of 300 respondents. **54.7 %** respondents said common all level of officers, 45.3% said that different for different levels of officers.

Hence majority of respondents agreed that there is a common performance system for all level of officers in the organization.

Q-17.How is the performance appraisal system in your organization?

Employees of chemical industries were asked to inform about. How is the performance appraisal system in your organisation?

Three options were furnished to the respondent's first option was confidential appraisal system, second option was open appraisal system and third option was semi confidential appraisal system. This question was asked to employees to know which method is effective to adjudge performance at administration level.

Results of data analysis are presented in the following frequency table and pie chart.

Table: 4.20. The system of Performance appraisal of organization.

		Frequency	Percent	Valid Percent	Cumulative Percent
	The system of Performance appraisal of your organization is ..				
Valid	Confidential appraisal system	117	**39.0**	39.1	39.1
	Open appraisal system	110	36.7	36.8	75.9
	Semi confidential appraisal system	72	24.0	24.1	100.0
	Total	299	99.7	100.0	
Missing	System	1	.3		
Total		300	100.0		

(Source: Primary Data)

Graph: 4.17.Thesystem of Performance appraisal of organization.
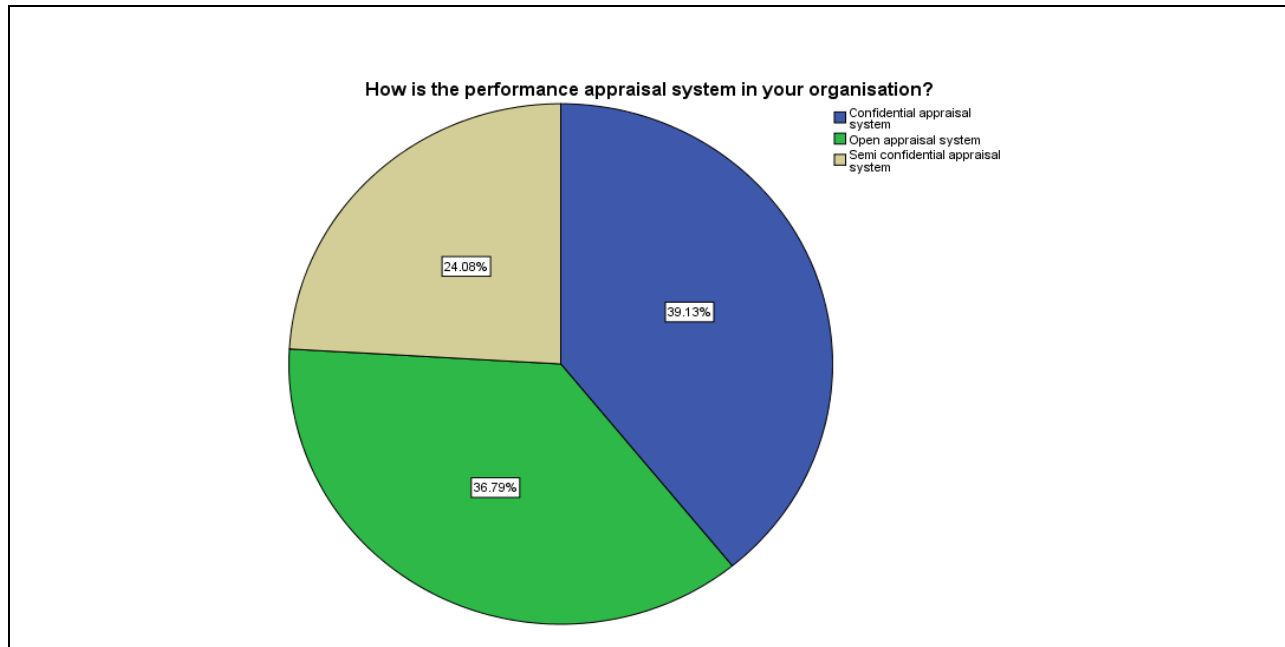
How is the performance appraisal system in your organisation?

- Confidential appraisal system
- Open appraisal system
- Semi confidential appraisal system

24.08%
39.13%
36.79%

(Source: Primary Data)

From the above frequency distribution table and pie chart it can be specified that out of 300 respondents. **39.1 %** respondents said confidential appraisal system, 36.8% said that open appraisal system and 24.1% said that semi confidential system.

Hence majority of respondents had conformed existence of confidential appraisal system in the organization.

*Q-18.*Forwhich administrative purpose the performance appraisal system is utilized?

Employee of chemical industries where asked to tell about for which administrative purpose the performance appraisal system is utilized?   **Five** options were given to the respondent's first option was Promotions, second option was salary decisions, third option was transfer, fourth option was demotions, and fifth option was job enrichment. This question was asked to employees, to know whether performance appraisal system is used for administration in the organisation or not.

Results of data analysis are presented in the following frequency table and bar chart.

Table: 4.21. The administrative purpose the performance appraisal system.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Promotions	60	20.0	20.0	20.0
	Salary decisions	63	**21.0**	21.0	41.0
	Transfer	58	19.3	19.3	60.3
	Demotions	56	18.7	18.7	79.0
	Job enrichment	63	**21.0**	21.0	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.18. The administrative purpose the performance appraisal system.
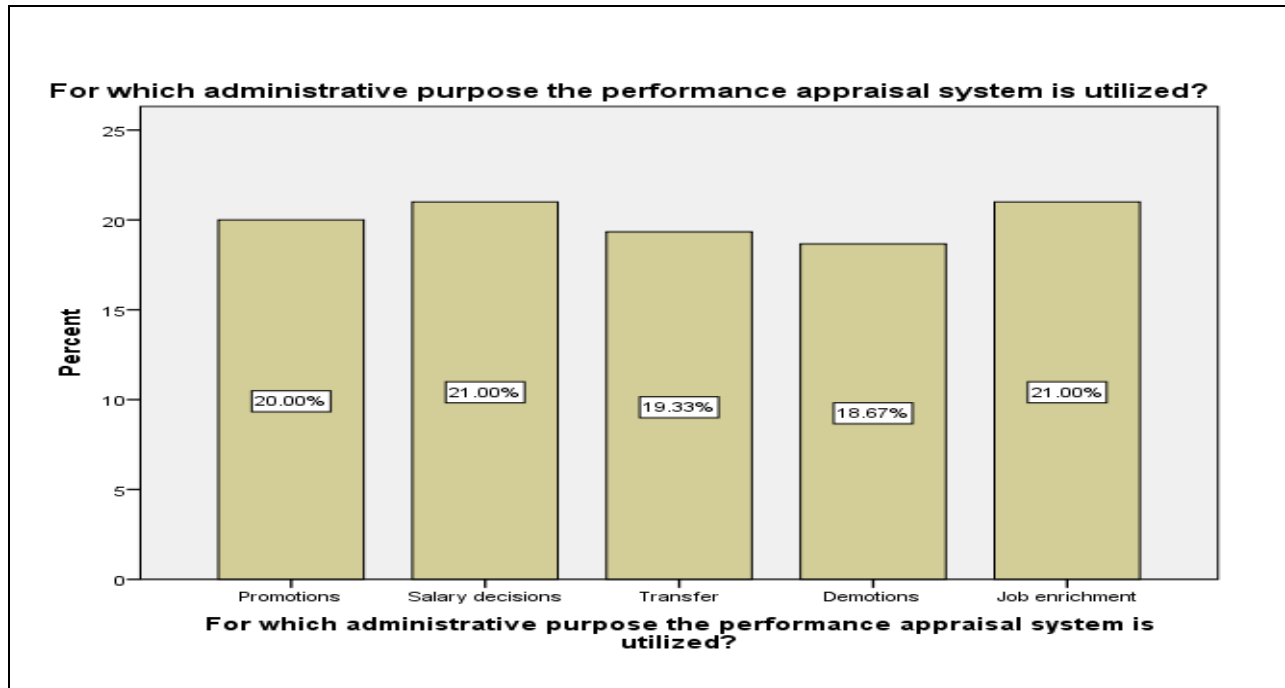
For which administrative purpose the performance appraisal system is utilized?

Promotions 20.00%	Salary decisions 21.00%	Transfer 19.33%	Demotions 18.67%	Job enrichment 21.00%

For which administrative purpose the performance appraisal system is utilized?

(Source: Primary Data)

From the above frequency distribution table and bar chart it can be point out that out of 300 respondents. 20.0% respondents said promotions, **21%** said salary decisions, 19.3% respondents said transfer, 18.7% said demotions, and **21%** said job enrichment.

Hence majority of respondents have selected two options one was salary decisions and second job enrichment followed by other purposes.

Q-19. **When doses the organisation take action on the appraisal report?**

Employee of chemical industries were asked to communicate about When doses the organisation take action on the appraisal report? Three options were furnished to the respondent's first option was Immediate on the receipt of the report, second option was at the time of considering the annual increment, and third option was at the time of promotion. This question was asked to employees, if appraisal report shown more work means employees are showing their performances better and concentrate their mind on work that time monetary level performance is given or not in the organization.

Results of data analysis are presented in the following frequency table and pie chart.

Table: 4.22. The action taken on the basis of appraisal report.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Immediate on the receipt of the report	105	**35.0**	35.0	35.0
	At the time of considering the annual increment	91	30.3	30.3	65.3
	At the time of promotion	104	34.7	34.7	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.19. The action taken on the basis of appraisal report.
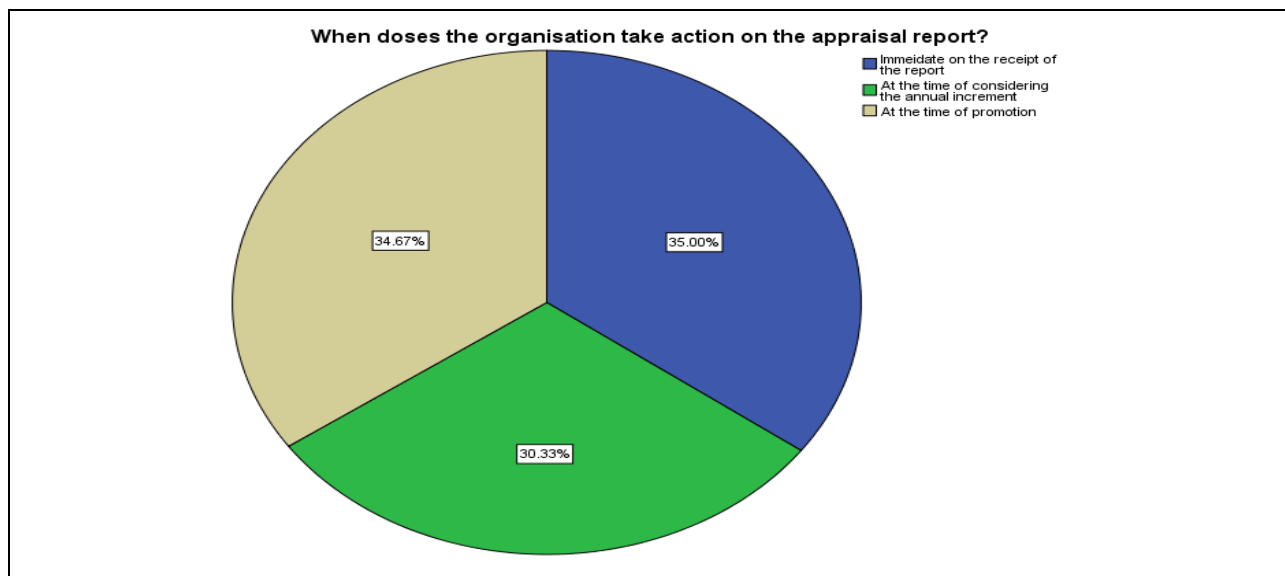
(Source: Primary Data)

From the above frequency distribution table and pie chart it can be showed that out of 300 respondents. **35.0%** respondents said Immediate on the receipt of the report, 30.3% said at the time of considering the annual increment and, 34.7% respondents said at the time of promotion.

Hence majority of respondents have confirmed that action is taken by organization immediately on the receipt of the appraisal report.

*Q-20.***Does any separate training department exist in your organisation?**

Employees of chemical industries were asked that does any separate training department exist in your organisation. Two options were given to the respondent's first option was Yes and second option was No training. This question was asked to employees, to know whether any special provision for training are available or not, whether the training facilities provided by the organisation or not.

Results of data analysis are presented in the following frequency table and pie chart.

Table: 4.23. Separate training department.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	190	**63.3**	63.3	63.3
	No	110	36.7	36.7	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.20. Separate training department.
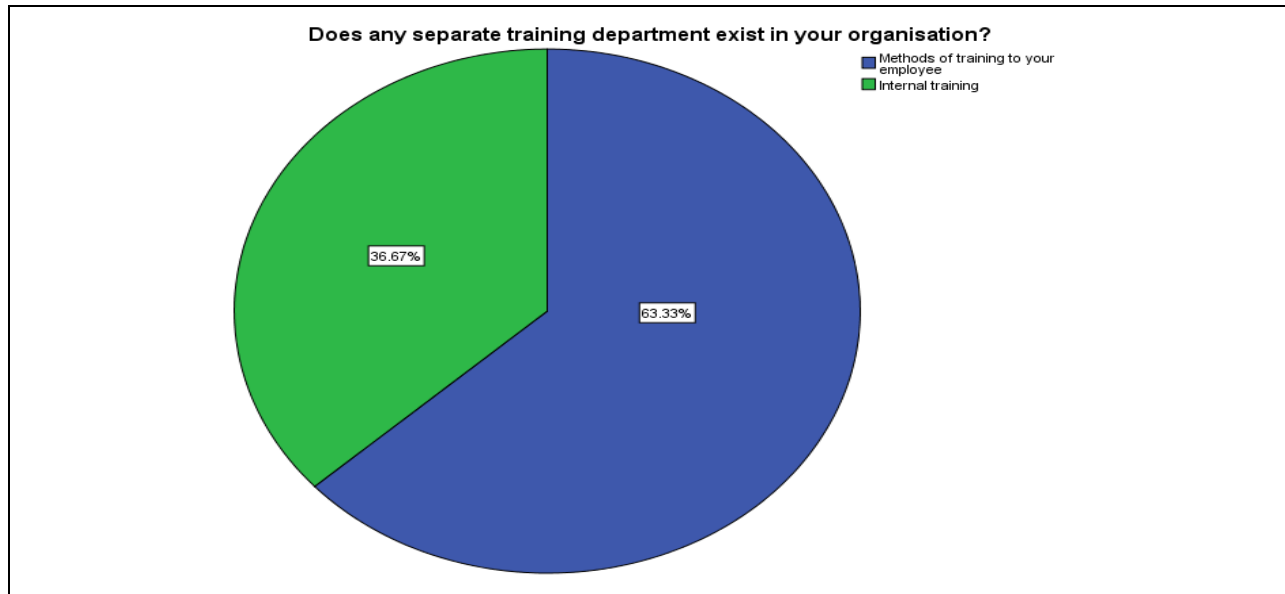
Does any separate training department exist in your organisation?

■ Methods of training to your employee
■ Internal training

36.67%

63.33%

(Source: Primary Data)

From the above frequency distribution table and pie chart it can be showed that out of 300 respondents. **63.3%**respondents said methods of training to your employees, 36.7% said internal training provided by the organization.

Hence majority of respondents had conformed existence of separate training department in the organization.

Q-21.How does the organisation encourage employees to sharpen their skills and performance?

Employee of chemical industries where asked to tell about How does the organisation encourage employees to sharpen their skills and performance?

Five options were given to the respondent's first option was sponsoring for higher educational programmes second option was arranging training programme, third options guiding through professionals, fourth was study leaves and fifth was incentives for taking projects. This question was asked to employees, to understand that organizational facilities and concessions to sharpen and arguments the skills and performance of the employees.

Results of data analysis are presented in the following frequency table and bar chart.

Table: 4.24.The organisation encourages employees to sharpen their skills and performance.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sponsoring for higher educational programmes	76	**25.3**	25.4	25.4
	Arranging training programme	57	19.0	19.1	44.5
	Guidance through professionals	51	17.0	17.1	61.5
	Study leaves	54	18.0	18.1	79.6
	Incentives for taking projects	61	20.3	20.4	100.0
	Total	299	99.7	100.0	
Missing	System	1	.3		
	Total	300	100.0		

(Source: Primary Data)

Graph: 4.21. The organisation encourages employees to sharpen their skills and performance.
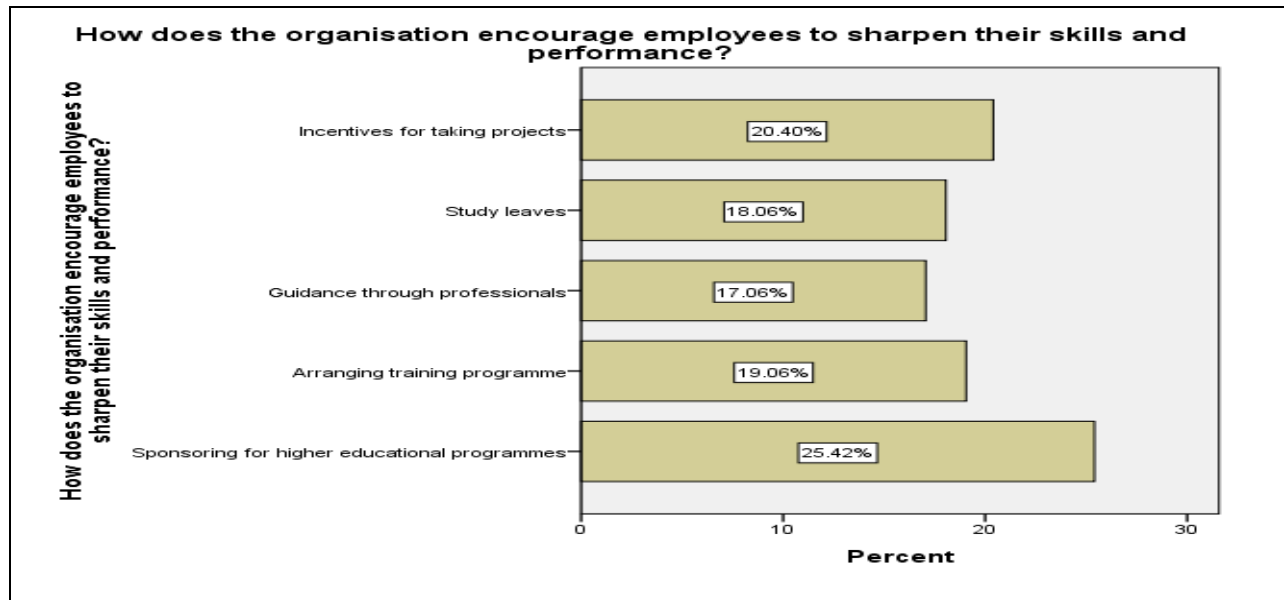
(Source: Primary Data)

From the above frequency distribution table and bar chart, it can be understand that out of 300 respondents. **25.42%** said sponsoring for higher educational programmes 19.06% respondents

said arranging training programme, 17.06% said guiding through professionals, 18.06% said study leaves and 20.4% said incentives for taking projects

Hence majority of respondents have confirmed that organization encourages employees by sponsoring for higher educational program, arranging training programmers, guidance through professionals.

Q-22. **What are the factors that assist you in identification training needs of your manager?**

Employees of chemical industries were asked to communicate about what are the factors that assist you in identification training needs of your manager?

Six options were given to the respondent's first option was from performance appraisal report, second option was through potential appraisal, third options was during performance review meetings, fourth was managers themselves indicates the nature of training needed, fifth was subject to changes in the task because of larger changes elsewhere, and sixth was subject to changes in the task in the organization (growth /diversification)This question was asked to know about exactly what kind of training is necessary for managers.

Results of data analysis are presented in the following frequency table and bar chart.

Table: 4.25. Identify training needs of Managers.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	From performance appraisal report	63	**21.0**	21.0	21.0
	Through potential appraisal	62	20.7	20.7	41.7
	During performance review meetings	58	19.3	19.3	61.0
	Managers themselves indicates the nature of training needed	56	18.7	18.7	79.7
	Subject to changes in the task because of larger changes elsewhere	42	14.0	14.0	93.7
	Subject to changes in the task in the organization (growth / Diversification)	19	6.3	6.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.22.Identify training needs of Managers.

What are the factors that assist you in identification training needs of your manager?

Factor	Percent
Subjec to changes in the task in the organization (growth / Diversification)	6.33%
Subject to changes in the task because of larger changes elsewhere	14.00%
Managers themselves indicates the nature of training needed	18.67%
During performace review meetings	19.33%
Through potential appraisal	20.67%
From performanec appraisal report	21.00%
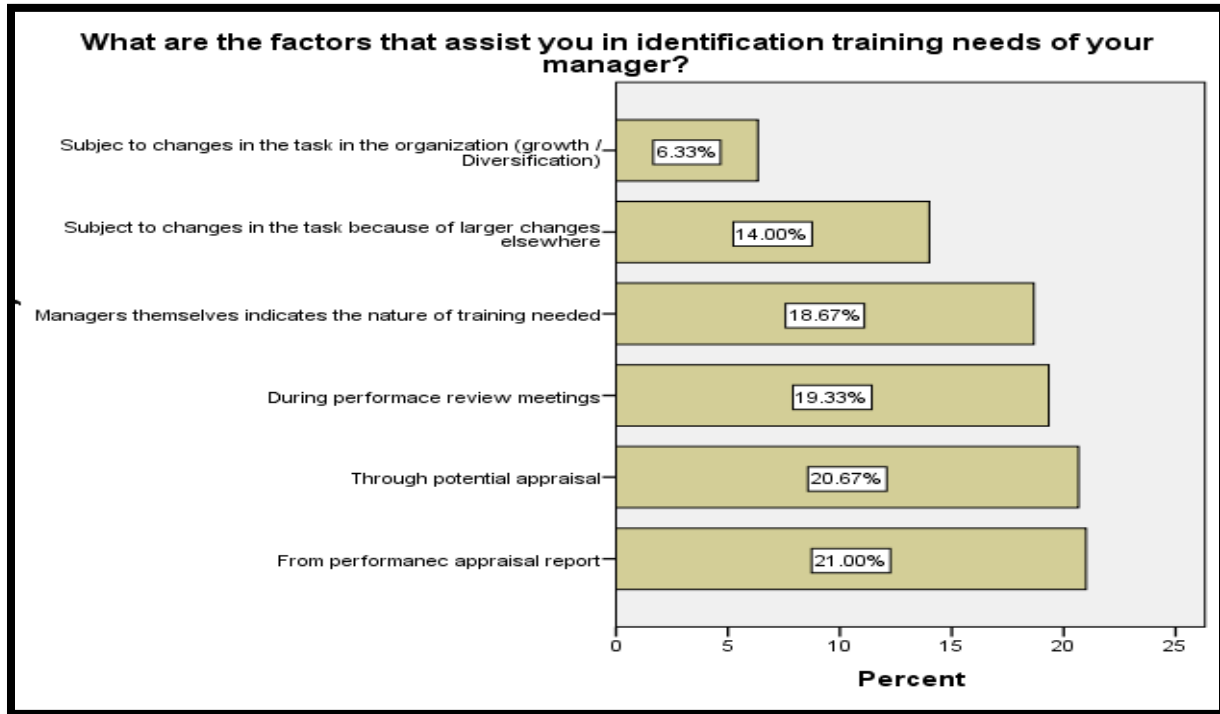
(Source: Primary Data)

From the above frequency distribution table and bar chart it can be comprehended that out of 300 respondents. **21.0%** respondent said from performance appraisal report 20.67% said through potential appraisal, 19.33% said during performance review meetings, 18.67% said managers themselves indicates the nature of training needed, 14.0% said to changes in the task because of larger changes elsewhere, and 6.33% respondents said subject to changes in the task in the organization (growth /diversification).

Hence majority of respondents confirmed that performance appraisal report plays major role in deciding training needs.

*Q-23.***Tick the Career planning opportunities presented to the employees in your organisation?**

Employee of chemical industries were asked to inform about Tick the Career planning opportunities presented to the employees in your organisation **Five** options were given to the respondent's first option was sponsoring for higher education programmes, second option was

training abroad, third options was coaching classes for professional courses, fourth was grant for study leaves, and fifth was preference for internal candidates for the new projects. This question was asked to respondents to know about career planning opportunities that the organisation offers to the employees.

Results of data analysis are presented in the following frequency table and bar chart.

Table: 4.26. Career planning opportunities offered to the employees in organization.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sponsoring for higher educational programmes	92	**30.7**	30.7	30.7
	Training abroad	55	18.3	18.3	49.0
	Coaching classes for professional courses	53	17.7	17.7	66.7
	Grant for study leaves	56	18.7	18.7	85.3
	Preference for internal candidates for the new projects	44	14.7	14.7	100.0
	Total	300	100.0	100.0	

Source: Primary Data)

Graph: 4.23. Career planning opportunities offered to the employees in organization.
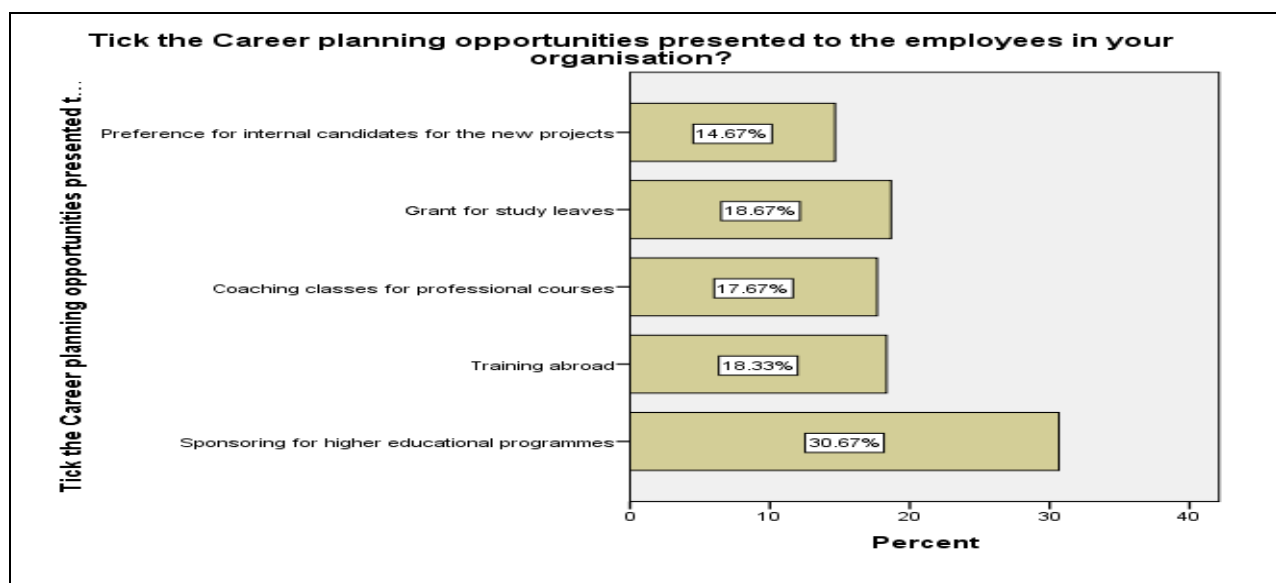
(Source: Primary Data)

From the above frequency distribution table and bar chart it can be showed that out of 300 respondents.**30.67%** respondents said that sponsoring for higher education programmes, 18.33% said training abroad, 17.67% said coaching classes for professional courses, 18.67% said grant for study leaves, and 14.67% said preference for internal candidates for the new projects.

Hence majority of respondents have contributed their preference to sponsoring for higher education programmes.

*Q-24.***Do you have Grievance Redressal cell in your Organisation?**

Employees of chemical industries were asked to tell about, Do you have Grievance Redressal cell in your Organisation?

Two options were given to the respondents first option was Yes and second option was No. This question was asked to respondents to know whether grievances redressal department is available or not in the organization.

Results of data analysis are presented in the following frequency table and pie chart.

Table: 4.27. Grievance redressal Cell in the Organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	194	**64.7**	64.7	64.7
	No	106	35.3	35.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.24. Grievance redressal Cell in the Organization
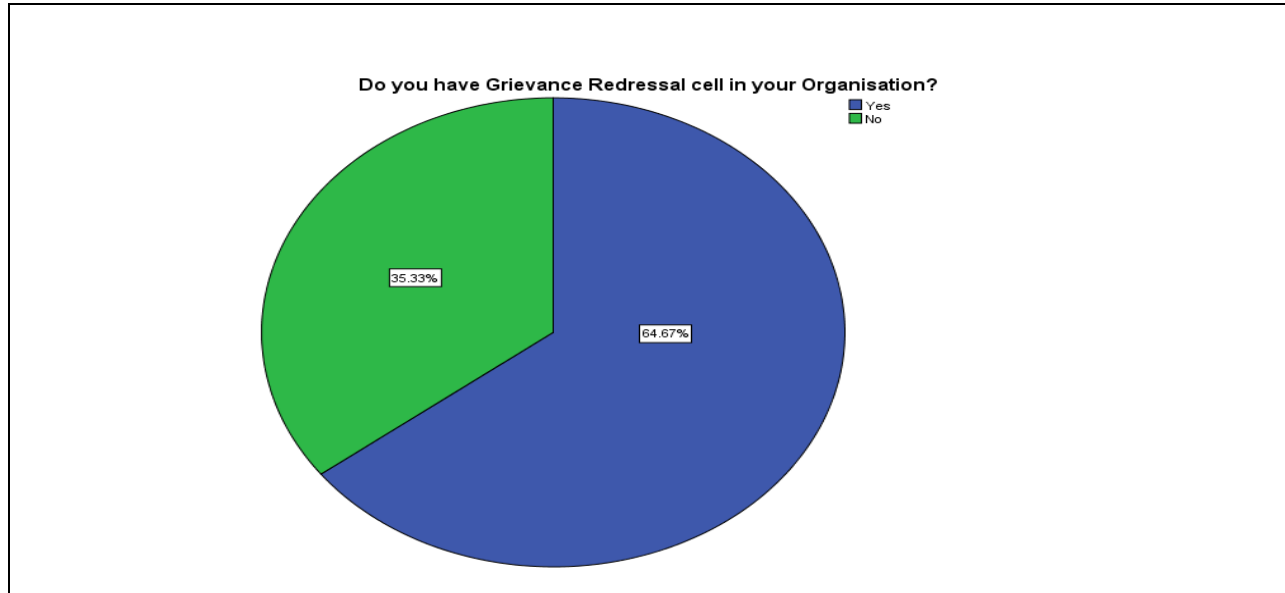
Do you have Grievance Redressal cell in your Organisation?
- Yes
- No

35.33%

64.67%

(Source: Primary Data)

From the above frequency distribution table and pie chart it can be pointed out that out of 300 respondents.**64.67%** respondents said Yes and 35.33 said No.

Hence majority of respondents have confirmed existence of Grievance redressal Yes performance.

Q-25.Does the Composition of Grievance Redressal Cell / Committee have employees?

Employee of chemical industries where asked to tell about Does the Composition of Grievance Redressal Cell Committee have employees? Two options were given to the respondent's first option was Yes and second option was No. This question was asked to respondents to know whether grievance Redressal committee accommodates from group of employees or not.

Results of data analysis are presented in the following frequency table and pie chart.

Table: 4.28. The Composition of Grievance Redressal Cell Committee.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	239	**79.7**	79.7	79.7
	No	61	20.3	20.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.25. The Composition of Grievance Redressal Cell
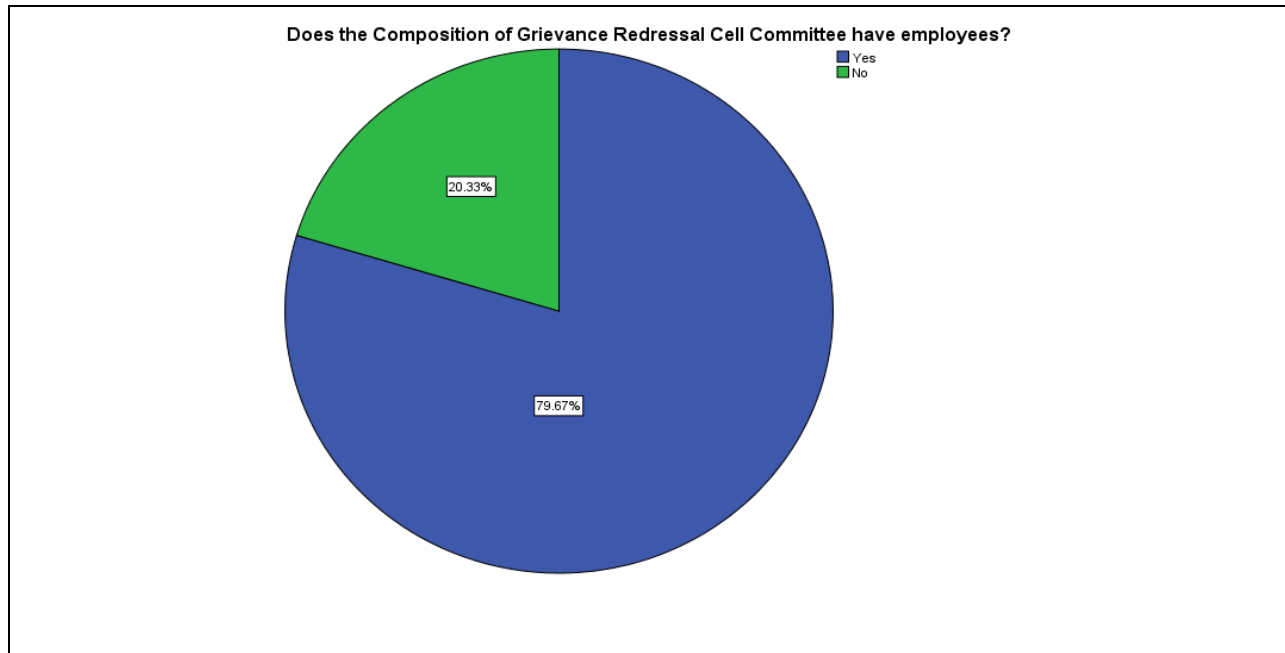
(Source: Primary Data)

From the above frequency distribution table and pie chart it can be highlighted that out of 300 respondents.**79.7%** respondents said Yes and 20.3% respondents said No.

Hence majority of respondents have confirmed inclusion of employees in composition of grievance redressal cell.

Q-26. Are you satisfied with the functioning and decisions of Grievance redressal committee?

Employee of chemical industries where asked to tell about Are you satisfied with the functioning and decisions of Grievance redressal committee? Two options were given to the

respondent's first option was Yes and second option was No. This question was asked to respondents to know whether the employees are satisfied with the decision of the grievance redressal committee.

Results of data analysis are presented in the following frequency table and pie chart.

Table: 4.29. Complainants satisfied with the decision of the grievance redressal committee.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	203	**67.7**	67.7	67.7
	No	97	32.3	32.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.26. Complainants satisfied with the decision of the grievance redressal committee.
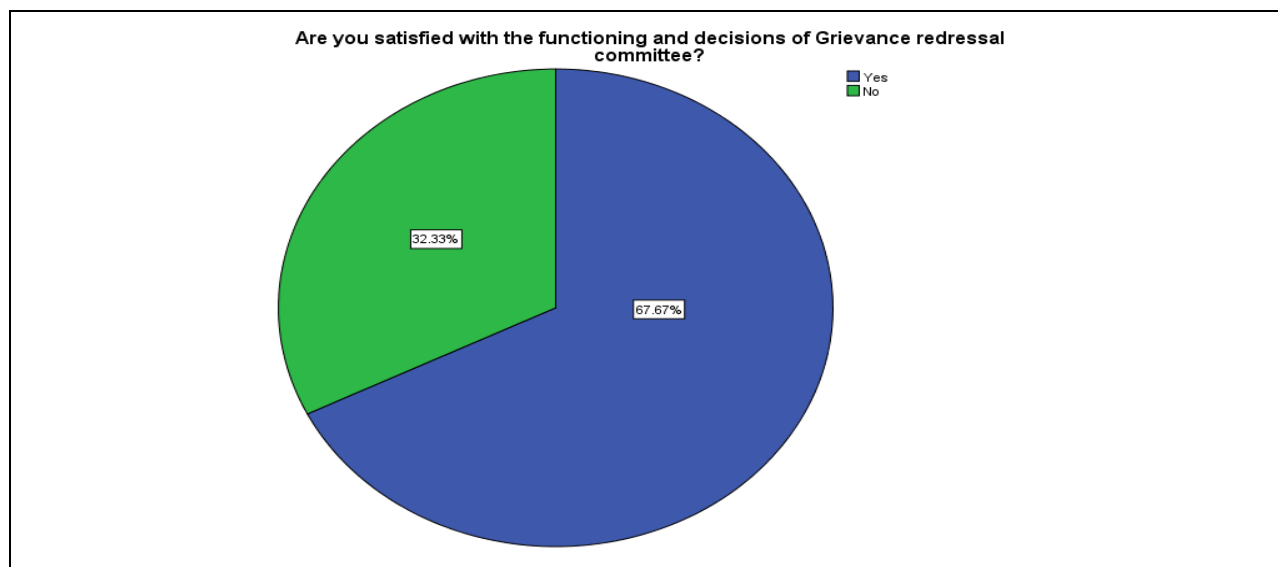
(Source: Primary Data)

From the above frequency distribution table and pie chart it can be seen that out of 300 respondents.**67.7%** respondents said Yes and 32.3% respondents said No.

Hence majority of respondents are satisfied with decisions and functioning of grievance redressal cell

Q-27. How do you thrust of Grievance redressal on production?

Employee of chemical industries where asked to tell about How do you thrust of Grievance redressal on production? Three options were given to the respondent's first option was Good, second option was Fair and third was Bad. This question was asked to respondents to know exactly what is the impact of decisions declared by the grievance Redressal committee on production

Results of data analysis are presented in the following frequency table and pie chart

Table 4.30.do you thrust of Grievance redressal on production?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Good	177	**59.0**	59.0	59.0
	Fair	67	22.3	22.3	81.3
	Bad	56	18.7	18.7	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.27. The impact of Grievance Redressal on production

How do you thrust of Grievance redressal on production?

- Good
- Fair
- Bad

18.67%

59.00%

22.33%
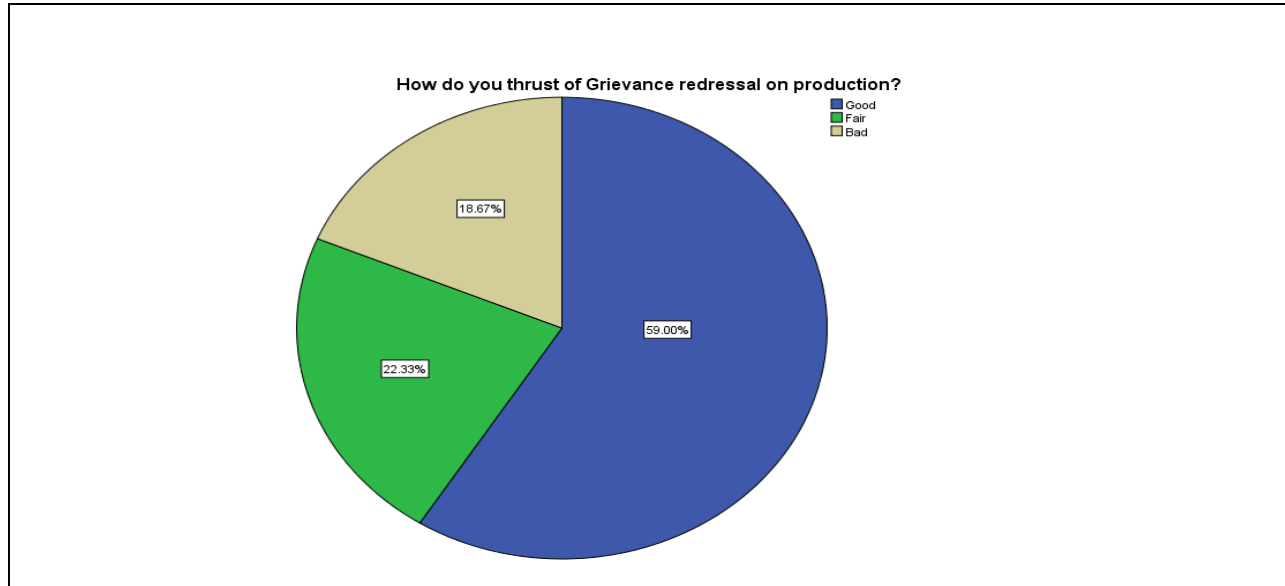
(Source: Primary Data)

From the above frequency distribution table and pie chart it can be said that out of 300 respondents.**59.0%** respondents said Good, 22.3% said Fair and 18.7% respondents said Bad.

Hence majority of respondents have given preference to Good.

Q-28. Does your organisation provide retirement benefits?

Employees of chemical industries were asked to inform about Does your organisation provide retirement benefits? Two options were given to the respondent's first option was Yes and second option was No. This question was asked to respondents to know that retirement benefits are available or not.

Results of data analysis are presented in the following frequency table and pie chart

Table:4.31.Post retirement benefits to the workers.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	201	**67.0**	67.0	67.0
	No	99	33.0	33.0	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.28. Retirement benefits to the workers
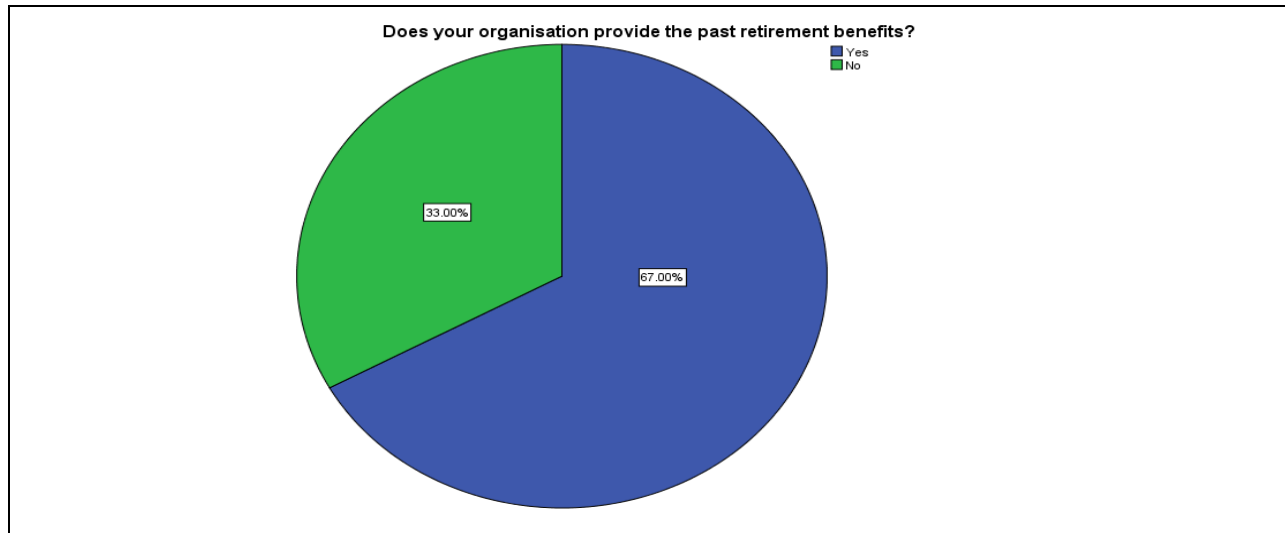
From the above frequency distribution table and pie chart it can be showed that out of 300 respondents.**67.0**% respondents said Yes and 33.0% respondents said No.

Hence the majority of respondents confirmed availability of retirement benefits in their organization.

Q-29. Does the Grievance Redressal cell get nomination from the employees?

Employees of chemical industries were asked to tell about Does the Grievance Redressal cell get nomination from the employees? Two options were given to the respondent's first option was Yes and second option was No. This question was asked to respondents to know members of Grievance Redressal Cell are nominated from the employees or not.

Table:4.32.The members of Grievance Redressal Cell are nominated from the employees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	300	**100.0**	100.0	100.0

Graph: 4.29.The members of Grievance Redressal Cell are nominated from the employees
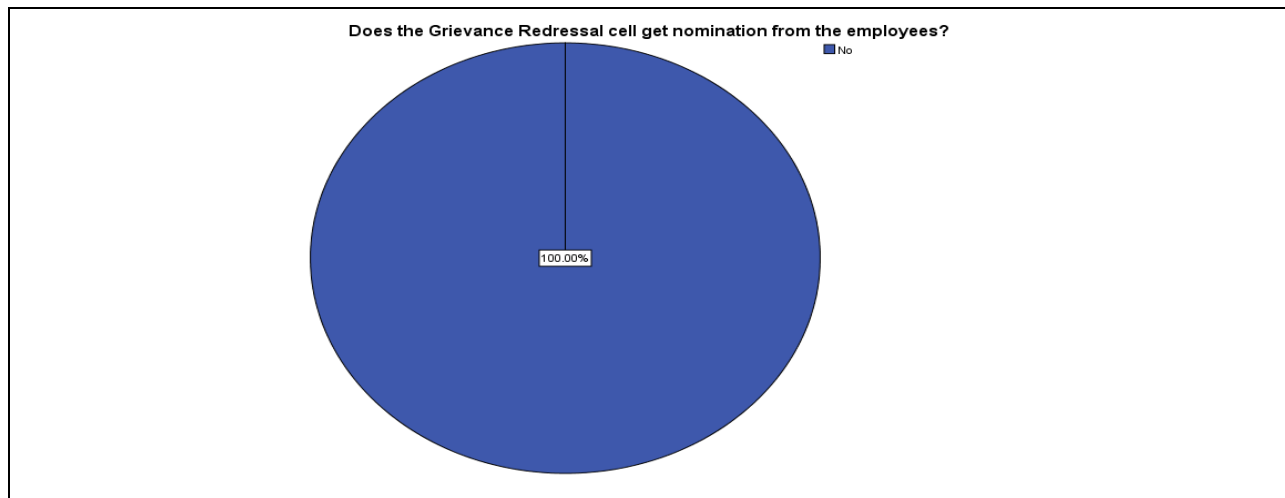
Does the Grievance Redressal cell get nomination from the employees?
■ No

100.00%

From the above frequency distribution table and pie chart, it can be showed that out of 300 respondents.**100.0**% respondents said No and 00.0% respondents said Yes.

Hence all of respondents confirmed that an employee does not get any nomination in redressal cell.

Q-30. Any Special awards received by your Company?

Employees of chemical industries were asked to tell about *any special awards get your Company?* Two options were given to the respondent's first option was Yes and second option was No. This question was asked to respondents to know any social awards received or by any social NGO or organization. If the organization is working towards be formant of society, it may receive some award for appreciation of the same.

Table:4.33. Special awards to the Company

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	143	47.7	47.7	47.7
	No	157	**52.3**	52.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.30. Special awards got to the Company
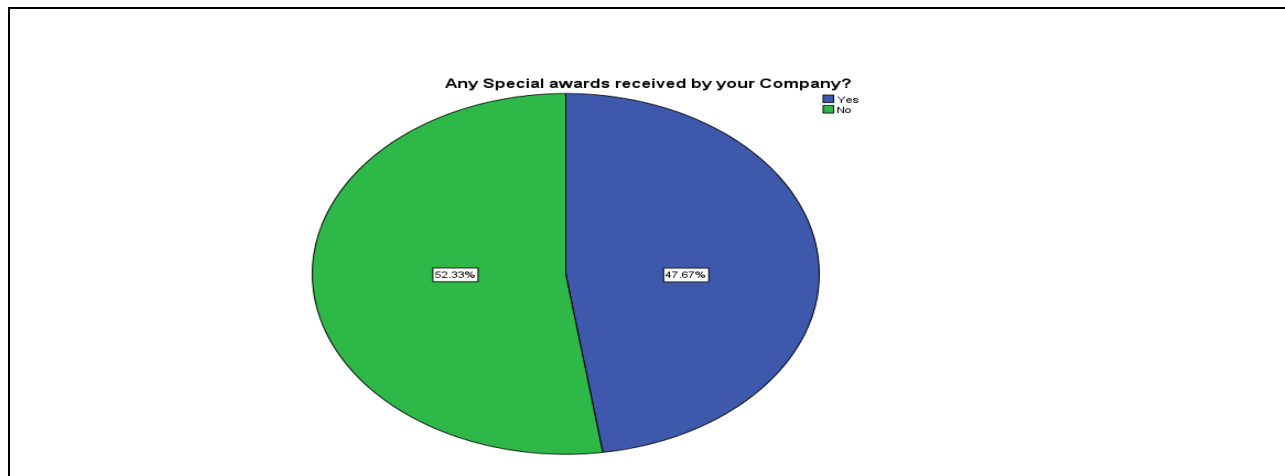
(Source: Primary Data)

From the above frequency distribution table and pie chart, it can be highlights that out of 300 respondents.**47.7**% respondents said Yes and 52.3% respondents said No.

Hence the majority of respondents have confirmed that their company does not win any special award.

Q-31. Do you take any care about environmental issues?

Employees of chemical industries were asked to inform about whether any care is taken in respect of environment? Two options were given to the respondent's first option was Yes and second option was No. This question was asked to respondents to know about their social awareness issues taken by the organization especially environmental hazards or not.

Table: 4.34. Any care taken about environmental issues.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	300	**100.0**	100.0	100.0

(Source: Primary Data)

Graph:4.31. Any care taken about environmental issues.
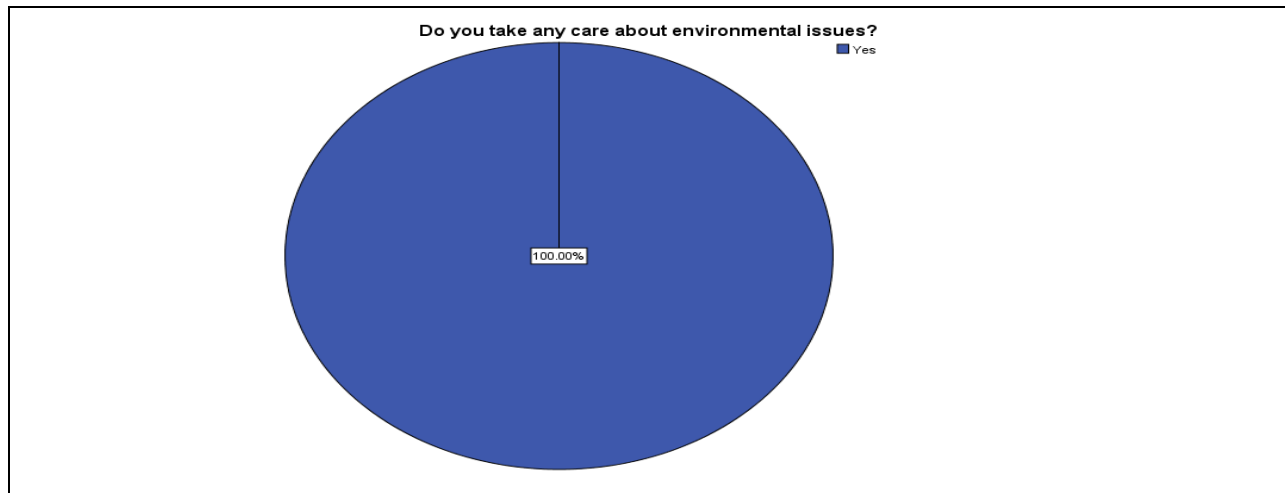
(Source: Primary Data)

From the above frequency distribution table and pie chart, it can be highlights that all the 300 respondents agreed that care needs to be taken about environmental issues.

Hence the majority of respondents are aware they are actively taking care for the same.

Q-32. Any specific action is taken on Chemical outlets?

Employee of chemical industries were requested to inform about **Any specific action is taken on Chemical outlets?** Two options were given to the respondents first option was Yes and second option was No. This question was asked to respondents to know whether notice is displayed on the notice board related with chemical and they are instructed to take care in respect of the hazards of the same.

Table:4.35. Any specific action is taken on Chemical outlets

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	300	**100.0**	100.0	100.0

(Source: Primary Data)

*Graph:4.32.*Any specific action is taken on Chemical outlets
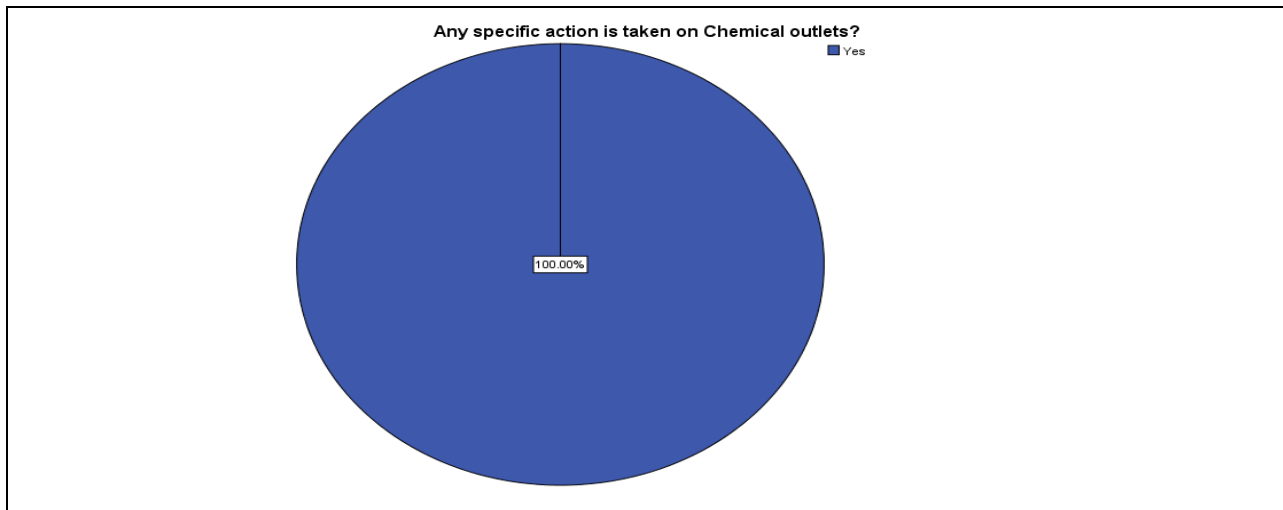
(Source: Primary Data)

From the above frequency distribution table and pie chart, it can be highlighted that out of 300 respondents.**100%** respondents said Yes and 00.0% respondents said No.

Respondents had unanimously confirmed that company provides information of specific procedures to be carried out on the chemical outlets to avoid hazards that can be caused by the same.

Q-33. Is there any Notice board is installed to inform the employees about hazardous and fatal chemicals in the premises of the organisation?

Employee of chemical industries were requested to inform about Is there any Notice board is installed to inform the employees about hazardous and fatal chemicals in the premises of the organisation? Two options were given to the respondent's first option was Yes and second

option was No. This question was asked to respondents to know whether notice are displayed on the notice board related with chemical and they are instructed to take care as against the hazards of the same.

Table :4.36. Is there any Notice board is installed to inform the employees about hazardous and fatal chemicals in the premises of the organisation?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	207	**69.0**	69.0	69.0
	No	93	31.0	31.0	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph:4.33. **Is there any Notice board is installed to inform the employees about hazardous and fatal chemicals in the premises of the organisation?**
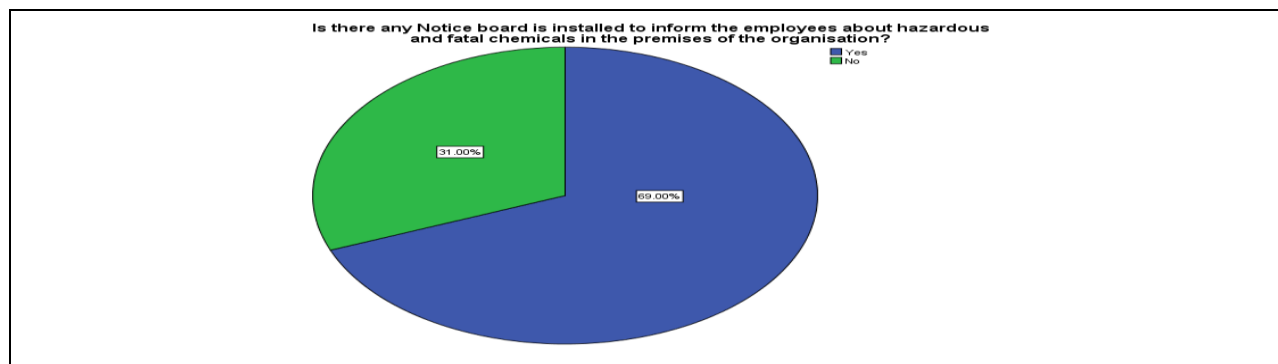
(Source: Primary Data)

From the above frequency distribution table and pie chart, it can be understood that out of 300 respondents.**69.00% respondents** said Yes and 31.0% respondents said No.

Hence the majority of respondents confirmed that a notice board is installed in the premises of the organization providing information to the employees and same is used by the employees to obtain the information.

Q-34. Which sorts of equipment / accessories are allotted to the workers in your organisation?

Employees of chemical industries were asked to communicate about which sort of equipment / accessories are allotted to the workers in your organisation? Three options were furnished to the respondent's first option was Permanent, second option was Temporary, and third option was

Not supplied. This question was asked to respondents to know any equipment's are provided by the company / organization or not to the workers.

Table: 4.37. **Sorts of equipment / accessories allotted to the workers in organization**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Permanent	174	**58.0**	58.0	58.0
	Temporary	81	27.0	27.0	85.0
	Not supplied	45	15.0	15.0	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph:4.34. **Sorts of equipment / accessories allotted to the workers in organisation**
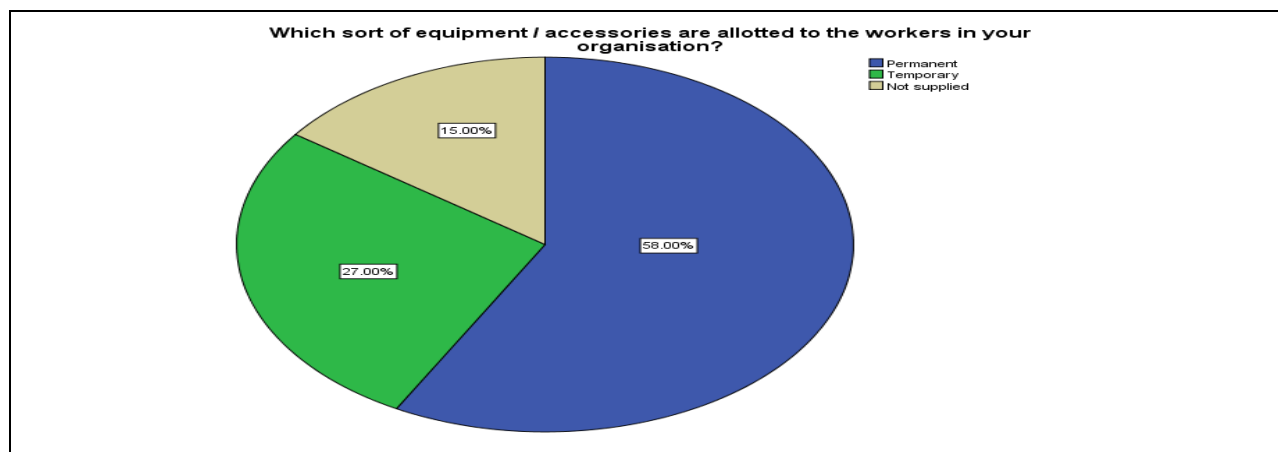
(Source: Primary Data)

From the above frequency distribution table and pie chart, it can be displayed that out of 300 respondents.**58.00%** respondents said permanent, 27.0% respondents said temporary and 15% said not supplied.

Hence the majority of respondents have confirmed that permanent equipments are supplied by the organization.

Q-35. Are you contended with the equipments supplied?

Employees of chemical industries were asked to tell about Are you contended with the equipments supplied? Two options were provided to the respondents first option was Yes and second option was No. This question was asked to respondents to know enough equipment

provided by the company to employees. Whether employees are satisfied with the equipments and whether it has resulted into concentration and increased in production or not.

Results of data analysis are presented in the following frequency table and pie chart

Table:4.38. The **contended with the equipment's supplied**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	218	**72.7**	72.7	72.7
	No	82	27.3	27.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph:4.35. The **contended with the equipment's supplied**
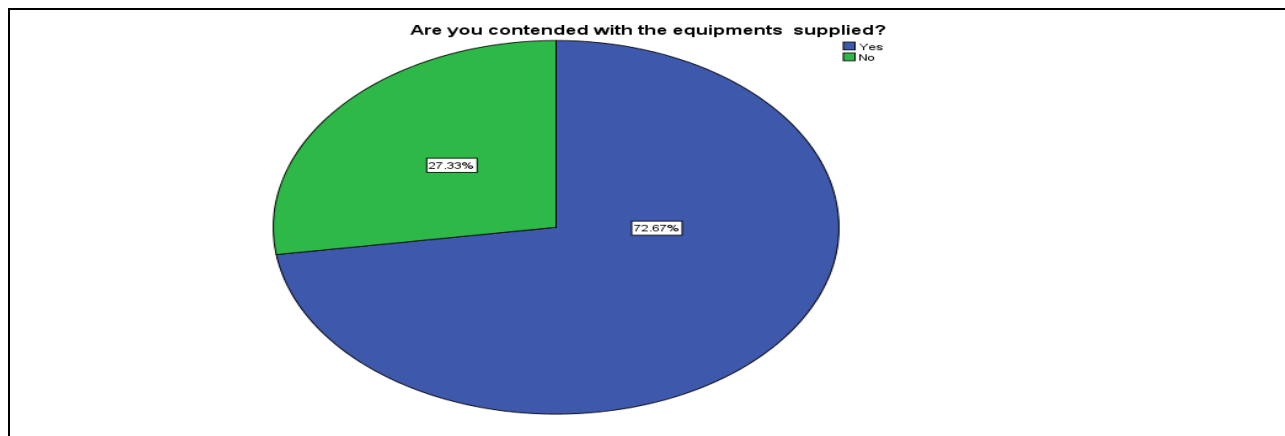
Are you contended with the equipments supplied?
Yes
No
27.33%
72.67%

(Source: Primary Data)

From the above frequency distribution table and pie chart, it can be pointed out that out of 300 respondents.**72.7%** respondents said yes and remaining 27.3% said No in response.

Hence the majority of respondents have chosen to Yes option, means of they are not satisfied if the equipment's are provided during working hours in the organisation.

Q-36. Is the internal facilities available?

Employees of chemical industries were asked to inform about internal facilities available? Two options were given to the respondent whether the employees are satisfied with internal facilities and whether it they protect them or not.

Results of data analysis are presented in the following frequency table and pie chart

Table:4.39. Internal facilities are available.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	217	**72.3**	72.3	72.3
	No	83	27.7	27.7	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph:4.36. Internal facilities are available
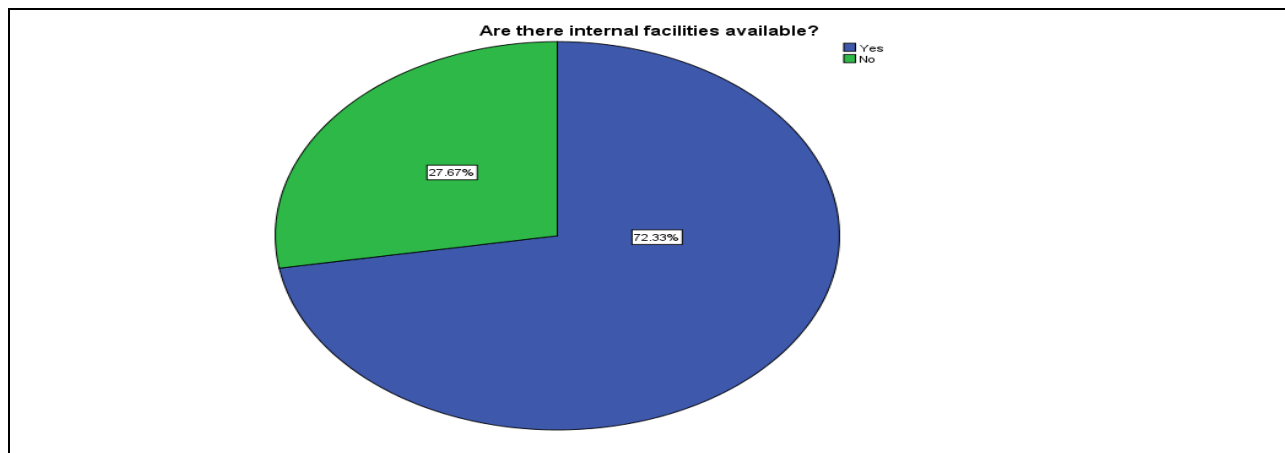
(Source: Primary Data)

From the above frequency distribution table and pie chart, it can be designed that out of 300 respondents.**72.3%** respondents said yes and remaining 27.7% said No in response.

Hence the majority of respondents have given preference to Yes means of they confirm availability of internal facilities.

Q-37.Do the employees of chemical industries Units are made aware about anticipatory injuries?

Employees of chemical industries were requested to tell about Do the employees of chemical industries Units are made aware about anticipate injuries? Two options were given to the respondents first option was Yes and second option was No. This question was asked to

respondents to inform the employees about possible physical injuries and how to protect themselves. Results of data analysis are posited in the following frequency table and pie chart.

Table:4.40. **The employees of chemical industries Units are made aware about anticipate injuries.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	242	**80.7**	80.7	80.7
	No	58	19.3	19.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph:4.37. **The employees of chemical industries Units are made aware about anticipatory injuries.**
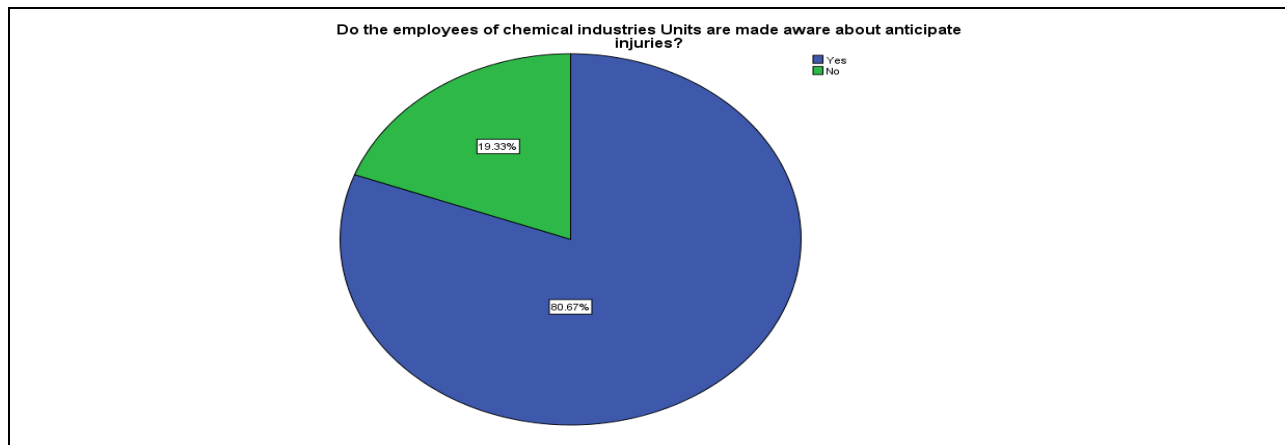
(Source: Primary Data)

From the above frequency distribution table and pie chart, it can be highlighted that out of 300 respondents.**80.7%** respondents said yes and remaining 19.3% said No in response.

Hence the majority of respondents have given preference to Yes, it means that they are informed about injuries by the organization.

Q-38. Whether the medical examination of the employee is regularly conducted?

Employees of chemical industries were asked to inform about whether the medical examination of the employee is regularly conducted? Two options were given to the respondents first option was Yes and second option was No. This question was asked to respondents to know whether

the medical facilities to employees are provided by the organisation or not. Also whether employees are made aware about their fitness and health problem or not.

Results of data analysis are displayed in the following frequency table and pie chart

Table:4.41.The medical examinations of the employees are conducted.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	225	**75.0**	75.0	75.0
	No	75	25.0	25.0	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph: 4.38. The employee's medical examinations of the employees are conducted
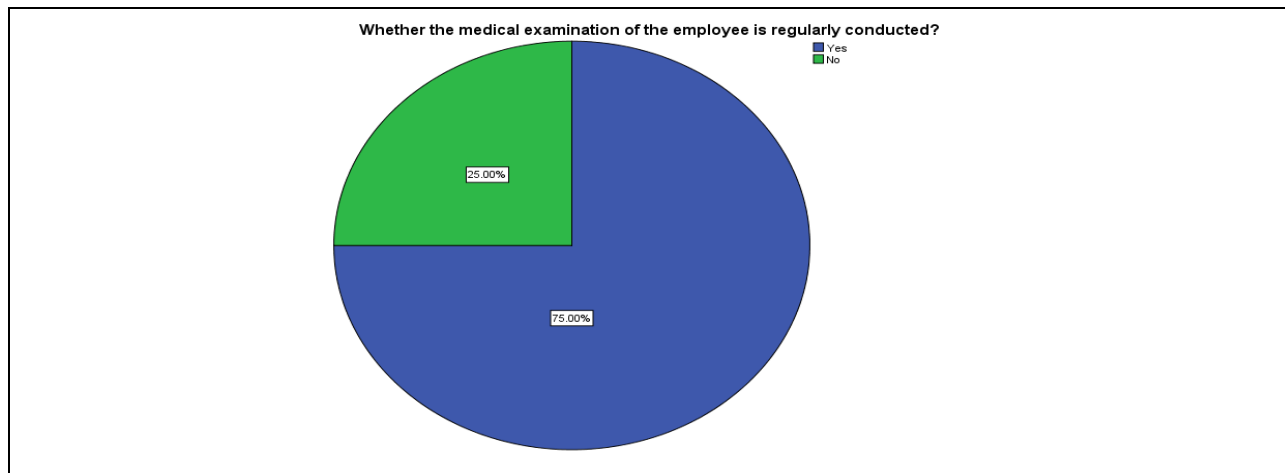
(Source: Primary Data)

From the above frequency distribution table and pie chart it can be shown that out of 300 respondents.**75.0%** respondents said yes and remaining 25.0% said No

Hence the majority of respondents have provided preference to Yes it means organisation provided internal medical examination facilities.

Q-39. **How do you adjudge your organisation in retaining employees in the last three years?**

Employees of chemical industries where asked to tell about, How do you adjudge your organisation in retaining employees in the last three years? Two options were given to the respondent's first option was Bad and second option was Good. This question was asked to respondents to know whether the company is capable to retain the employees in the last three

years or not. Because this retaining leads towards the progress of the organisation. Results of data analysis are presented in the following frequency table and pie chart

Table:4.42. The adjudge organisation in retaining employees in the last three years.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Employee Retention				
Valid	bad	125	41.7	41.7	41.7
	good	175	**58.3**	58.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph:4.39. The adjudge organisation in retaining employees in the last three years.
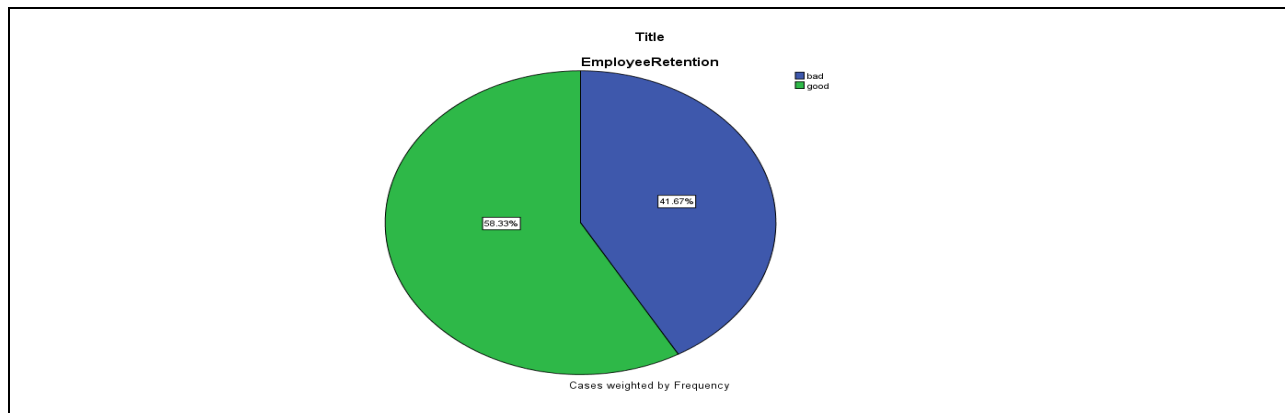
(Source: Primary Data)

From the above frequency distribution table and pie chart, it can be understood seen that out of 300 respondents.41.70%respondents said bad and remaining **58.3%** said good response.

It had been observed that company was successful in retaining its employees.

Q- 40. **How do you assess Human Resource Management Practices of your organisation in previous three years?**

Employees of chemical industries were asked to communicate about How do you assess Human Resource Management Practices of your organisation in previous three years Two options were given to the respondent's first option was Moderately Healthy and second option was Very Healthy. This question was asked to respondents to know whether overall Human Resource Management practices of last three years contribute in the progress of the organisation or not.

Results of data analysis are showcased in the following frequency table and pie chart

Table:4.43. Rate the overall Human Resource Management Practices of your company in last three year

HRM Practices					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	moderately healthy	100	33.3	33.3	33.3
	Very healthy	200	**66.7**	66.7	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph:4.40. Rate the overall Human Resource Management Practices of your company in last three years
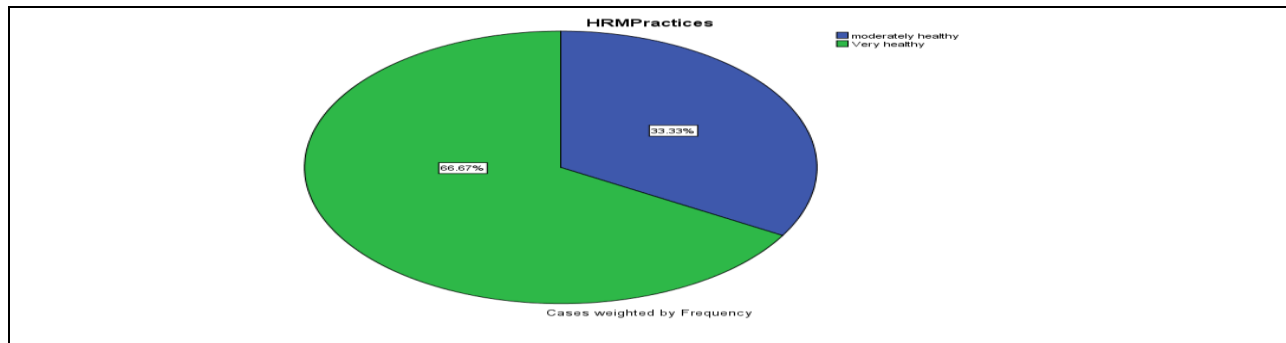
(Source: Primary Data)

From the above frequency distribution table and pie chart, It is revealed that out of 300 respondents.33.3% respondents said that the HR practices in their organization are Moderately Healthy and remaining **66.7%** said the HR practices are very healthy.

According to the majority of respondents HRM Practices in the organizations are healthy

*Q-41.***How do you adjudge the productivity of employees of your organisation in previous three years?**

Employees of chemical industries were asked to inform about how do you adjudge the productivity of employees of your organisation in previous three years? Two options were given to the respondent's first option was bad and second option was good. This question was asked to respondents to know the productivity of employees in the organization last three years.

 Results of data analysis are displayed in the following frequency table and pie chart.

Table:4.44. Rate productivity of employees of your company in the last three years.

		Frequency	Percent	Valid Percent	Cumulative Percent
Employee Productivity					
Valid	bad	135	45.0	45.0	45.0
	good	165	**55.0**	55.0	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Graph:4.41. Rate productivity of employees of your company in the last three years.
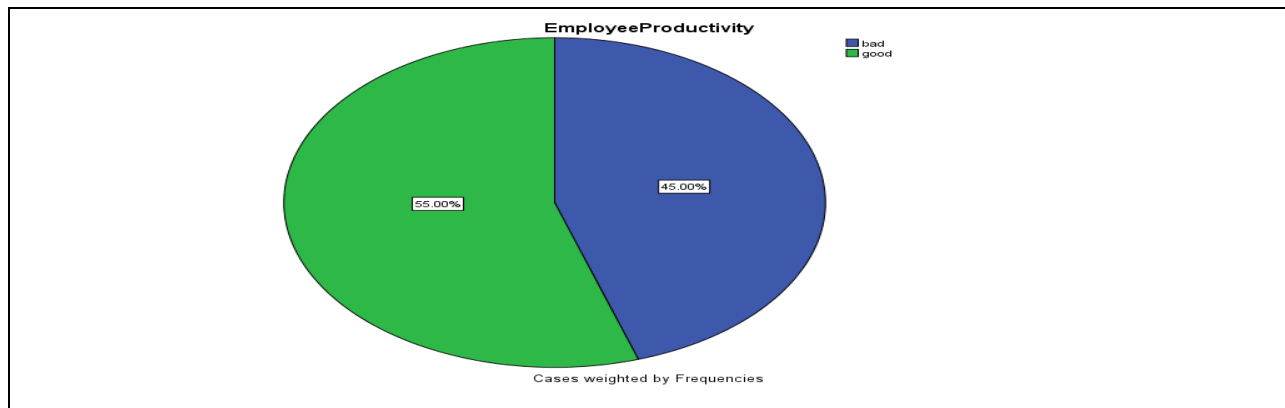
(Source: Primary Data)

From the above frequency distribution table and pie chart it can be shown that out of 300 respondents.45.0% respondents said bad and remaining **55.0%** said good.

Hence the majority of respondents have given preference to good. It means that productivity is available in the employees in last three years.

Q-42. Does the management believe that Human Resources are significant and they should be treated on human ground?

Table:4.45. Human Resources are significant and they should be treated on human ground.

(Histogram)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	10	3.3	3.3	3.3
	Rarely true	43	14.3	14.3	17.7
	Sometimes true	113	**37.7**	37.7	55.3
	Mostly true	101	33.7	33.7	89.0
	Almost always true	33	11.0	11.0	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table: 4.46. Top Management treated as more humanly.(COV)

Mean	**3.35**
Standard Deviation	0.968
Skewness	-0.229
Kurtosis	-0.262
COV = (Standard Deviation/Mean)*100	**28.89**

(Source: Primary Data)

Graph:4.42 . Human Resources are significant and they should be treated on human ground.

Histogram

Mean = 3.35
Std. Dev. = .968
N = 300

Does the management believe that Human Resources are significant and they should be treated on human ground?
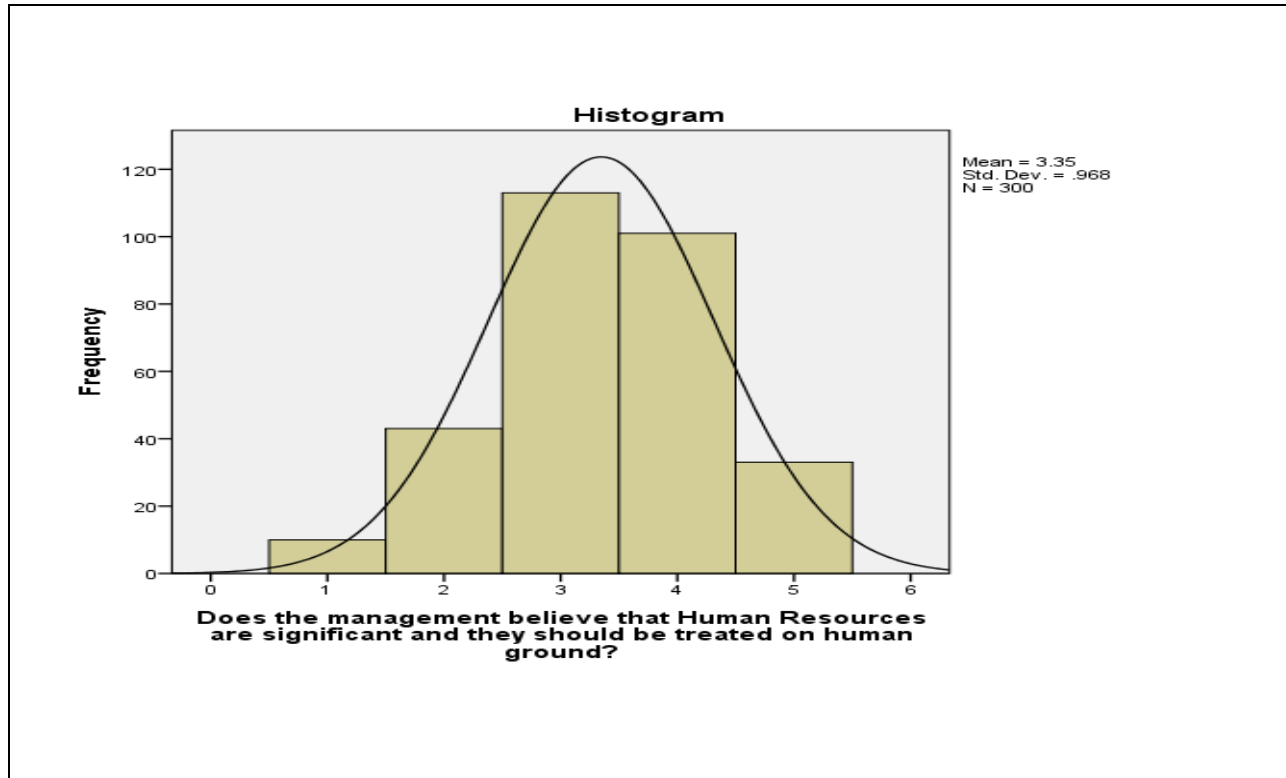
(Source: Primary Data)

Mean= 3.35 COV= 28.895%

COV is less than 33%, this indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (-0.229) the negative value of skewness indicates that the curve is left-skewed and most of the data are concentrated on the right of the graph. The positive value of kurtosis indicates that the curve is tall and narrow.

From the skewness and kurtosis values, it can be further interpreted that the mean is a good representation of the sample data under study.

Hence it can be affirmed that employees of chemical industries MODERATELY AGREE that top management believes that Human resources are an extremely important resource and that they have to be treated more humanly.

Interpretation:-

From the frequency distribution table, it can be seen that 3.3% employees says that it is not at all true that the top management believes that the Human resource are extremely important resources and that the Human Resources to treated more humanly, 14.3% says it is that rarely true, **37.7%** says it is sometimes true 33.7% says that mostly true. 11% says it is almost always true.

Hence majority of employees selected sometimes true option hence they believe that, top management is not consistent in providing humanly treatment to subordinates.

Q-43. Advancement of subordinate is treated as an organic part of managers / officers job.

Table:4.47. Advancement of subordinate is treated as an organic part of managers / officers job. (Histogram)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	7	2.3	2.3	2.3
	Rarely true	26	8.7	8.7	11.0
	Sometimes true	99	33.0	33.0	44.0
	Mostly true	127	**42.3**	42.3	86.3
	Almost always true	41	13.7	13.7	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table: 4.48. Advancement of subordinate is treated as an organic part of managers / officers job.(COV)

Mean	**3.56**
Standard Deviation	0.914
Skewness	-0.453
Kurtosis	0.132
COV= (Standard Deviation/Mean)*100	**25.674**

(Source: Primary Data)

Graph: 4.43. Advancement of subordinate is treated as an organic part of managers / officers job.(COV)
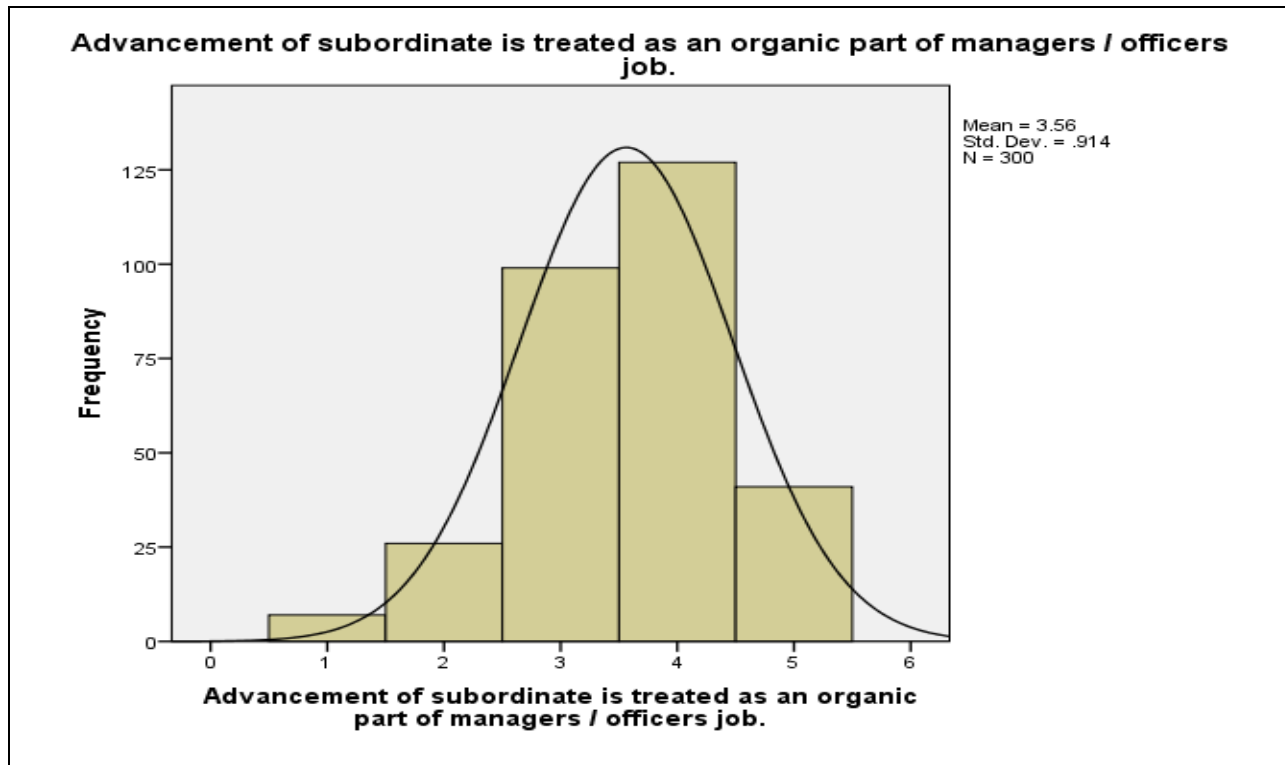
(Source: Primary Data)

Mean= 3.56 COV= 25.674 %

COV is less than 33% this shows that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (-0.453) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrate on the right of the graph.

The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be conducted that employees of chemical industries moderately agree that the development of subordinate is seen as an important part of their job by the manager / officers here.

*Interpretation***:-**

From the frequency distribution table it can be told that 2.3% employees says that the development of subordinate is seen as an important part of their job by the manager / officers , 8.7% says it is that rarely true, 33.% says it is sometimes true **42.3%** says that mostly true. 13.7% says it is almost always true.

Hence majority of employees believe that, that the development of subordinate is seen as an important part of their job by the manager / officers.

Q-44. The potential policies of your organisation complement employee's advancement.

Table: 4.49. The potential policies of your organisation complement employee's advancement(Histogram)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	14	4.7	4.7	4.7
	Rarely true	47	15.7	15.7	20.3
	Sometimes true	103	**34.3**	34.3	54.7
	Mostly true	103	**34.3**	34.3	89.0
	Almost always true	33	11.0	11.0	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table 4.50. The potential policies of your organisation complement employee's advancement (COV)

Mean	**3.31**
Standard Deviation	-1.016
Skewness	-0.293
Kurtosis	-0.365
COV+(Standard Deviation/Mean)*100	**30.694**

(Source: Primary Data)

Graph:4.44. The potential policies of your organisation complement employee's advancement

The potential policies of your organisation complement employee's advancement.

Mean = 3.31
Std. Dev. = 1.016
N = 300
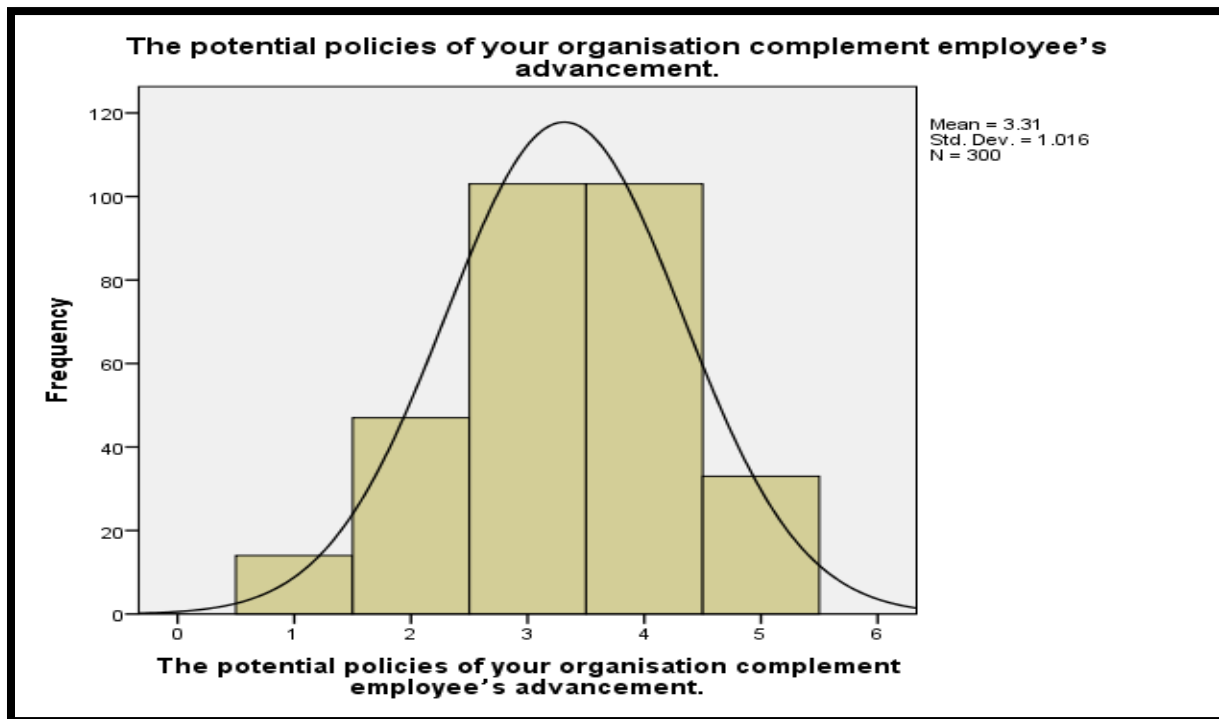
(Source: Primary Data)

Mean= 3.31 COV= 30.694 %

COV is less than 33%, This indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (-0.293) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrated on the right of the graph.

The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value, it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be affirmed that employees of chemical industries moderately agree that the Personnel policies in this organisation facilitates employee's development.

Interpretation:-

From the frequency distribution table, it can be shown that 4.7% employees says that the personnel policies in this organization facilitates employee's development , 15.7 % says it is that rarely true, **34.3%** says it is sometimes true **34.3%** says that mostly true. 11.0 % says it is almost always true.

Hence majority of employees believes that, the personnel policies in the organisation facilitate employee's development.

Q-45. Senior Officers are pro in assisting their subordinates in their work.

Table: 4.51. Senior Officers are pro in assisting their subordinates in their work.(Histogram)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	6	2.0	2.0	2.0
	Rarely true	30	10.0	10.0	12.0
	Sometimes true	107	35.7	35.7	47.7
	Mostly true	121	**40.3**	40.3	88.0
	Almost always true	36	12.0	12.0	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table: 4.52. Senior Officers are pro in assisting their subordinates in their work.(COV)

Mean	**3.5**
Standard Deviation	0.901
Skewness	-0.341
Kurtosis	-0.015
COV+(Standard Deviation/Mean)*100	**25.742**

(Source: Primary Data)

Graph: 4.45. Senior Officers are pro in assisting their subordinates in their work.
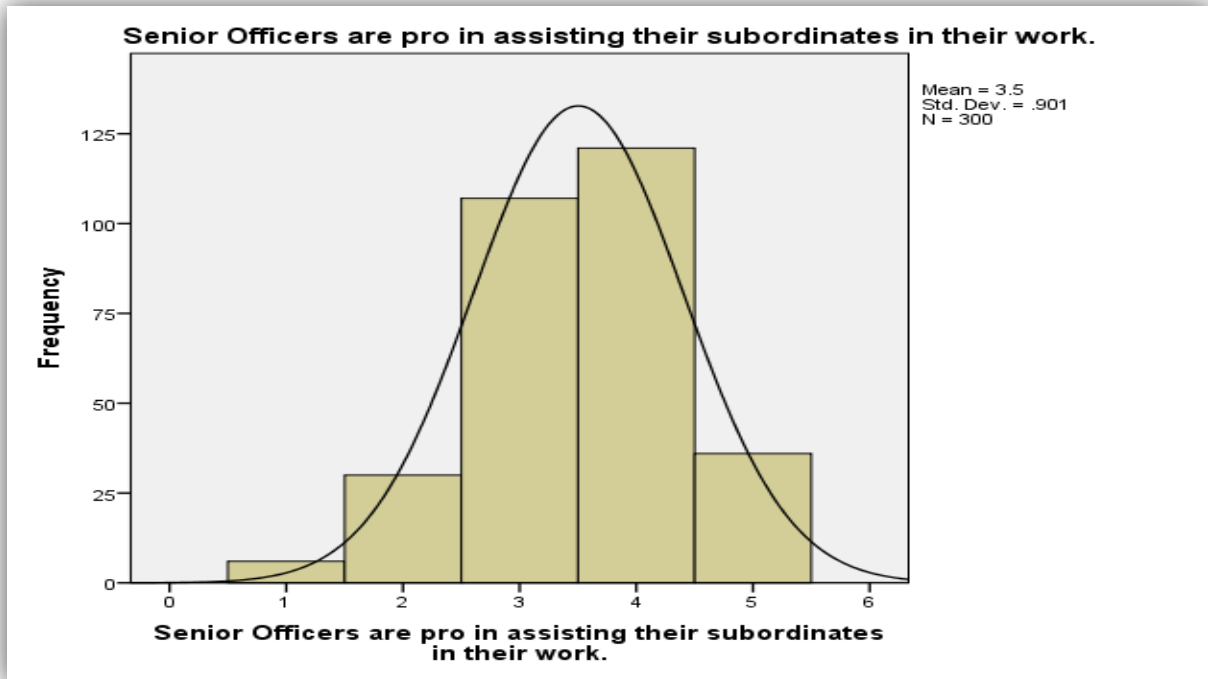
(Source: Primary Data)

Mean= 3.5 COV= 25.742 %.

COV is less than 33%. This is indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (-0.341) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrated on the right of the graph.

The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be concluded that employees of chemical industries moderately agree that the senior officers / Executives in this organisation take active interest in their juniors and help them their job.

Interpretation:-

From the frequency distribution table it can be pointed out that 2.0% employees say that not at all true that Senior officers / Executives in this organization take active interest in their juniors and help them their job., 10.2% says it is that rarely true, 35.7% says it is sometimes true **40.3%** says that mostly true. 12.0 % says it is almost always true.

Hence majority of employees believe that, that the senior officers / Executives in the organisation take active interest in the development of subordinates.

Q-46. People in this company are advantageous to each other.

Table: 4.53. People in this company are advantageous to each other.

Q-46. People in this company are advantageous to each other.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	9	3.0	3.0	3.0
	Rarely true	31	10.3	10.3	13.3
	Sometimes true	111	37.0	37.0	50.3
	Mostly true	118	**39.3**	39.3	89.7
	Almost always true	31	10.3	10.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table:4.54. People in this company are advantageous to each other.

Mean	**3.44**
Standard Deviation	0.916
Skewness	-0.400
Kurtosis	0.099
COV+(Standard Deviation/Mean)*100	**26.627**

(Source: Primary Data)

Graph:4.46. **People in this company are advantageous to each other.**
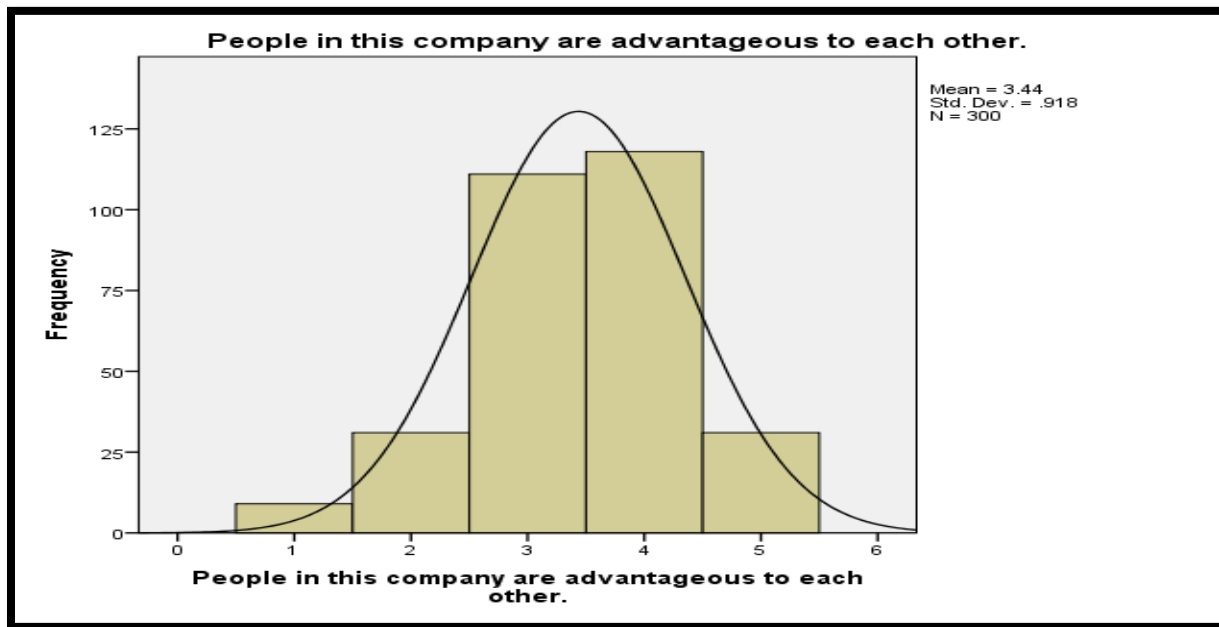
Mean= 3.44, COV= 26.627 %

COV is less than 33% this indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (-0.400) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are congested on the right of the graph.

The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be concluded that employees of chemical industries moderately agree that People in their organisation are helpful to each other.

Interpretation: -

From the frequency distribution table, it can be highlighted that 3.0% employees say that not at all true that People in this organisation are helpful to each other.,10.3% says it is that rarely true, 37.0% says it is sometimes true,**39.3%** says that mostly true, and 10.3 % says it is almost always true.

Hence majority of employees believe that, People in this organisation are helpful to each other.

Q-47. Senior mentor juniors for the future responsibilities they are likely to shoulder.

Table: 4.55.Senior mentor juniors for the future responsibilities they are likely to shoulder.

(Histogram)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	11	3.7	3.7	3.7
	Rarely true	41	13.7	13.7	17.3
	Sometimes true	97	32.3	32.3	49.7
	Mostly true	102	**34.0**	34.0	83.7
	Almost always true	49	16.3	16.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table: 4.56. Senior mentor juniors for the future responsibilities they are likely to shoulder.

(COV)

Mean	**3.46**
Standard Deviation	1.035
Skewness	-0.311
Kurtosis	-0.427
COV+(Standard Deviation/Mean)*100	**29.913**

(Source: Primary Data)

Graph: 4.47. **Senior mentor juniors for the future responsibilities they are likely to shoulder.**
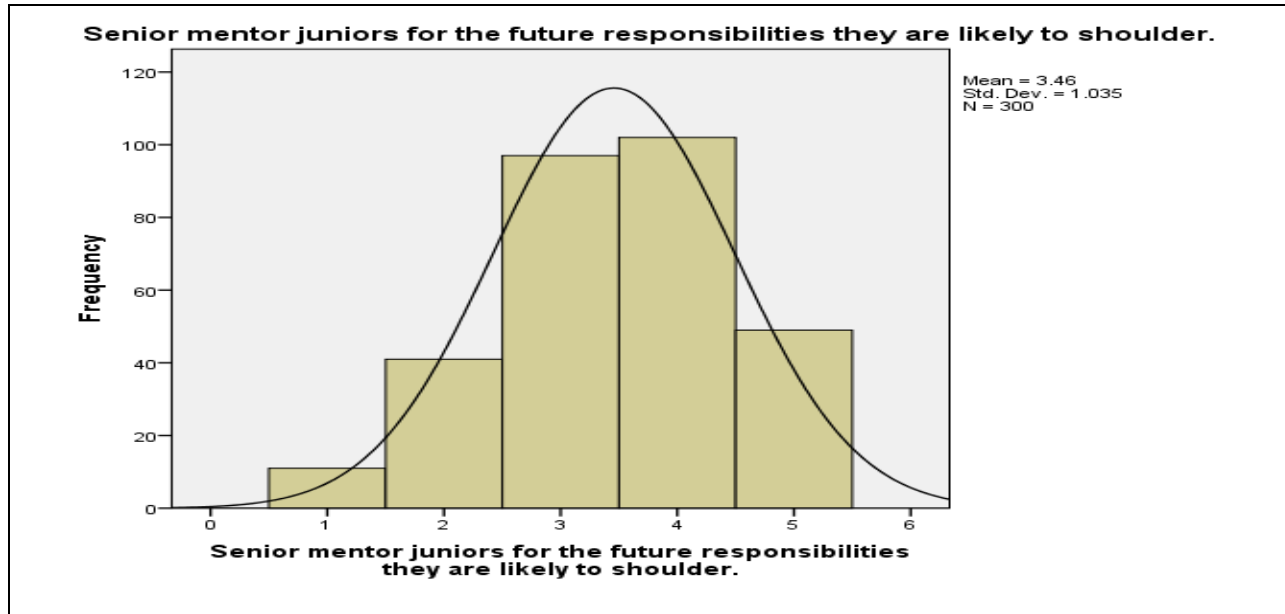
Mean= 3.46, COV= 29.913 %.

COV is less than 33% . this indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (-0.311) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrated on the right of the graph.

The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

 Hence it can be concluded that employees of chemical industries moderately agree that the seniors guide their juniors and prepare for future responsibilities / roles they are likely to take up.

*Interpretation***:-**

From the frequency distribution table, it can be shown that 3.7% employees says that not at all true at People in this organisation are helpful to each other.,13.7% says it is that rarely true, 32.3% says it is sometimes true,**34.0%** says that mostly true and 16.3 % says it is almost always true.

Hence majority of employee believes that, seniors guide their juniors and prepare for future responsibilities / roles they are likely to take up.

Q-48. The Top management of the company acknowledges and nurtures the potential of the employees.

Table:4.57. The Top management of the company acknowledges and nurtures the potential of the employees.(Histogram)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely true	15	5.0	5.0	5.0
	Sometimes true	113	37.7	37.7	42.7
	Mostly true	134	**44.7**	44.7	87.3
	Almost always true	38	12.7	12.7	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table:4.58. **The Top management of the company acknowledges and nurtures the potential of the employees.**

Mean	**3.65**
Standard Deviation	0.763
Skewness	0.006
Kurtosis	-0.422
COV+(Standard Deviation/Mean)*100	**20.904**

(Source: Primary Data)
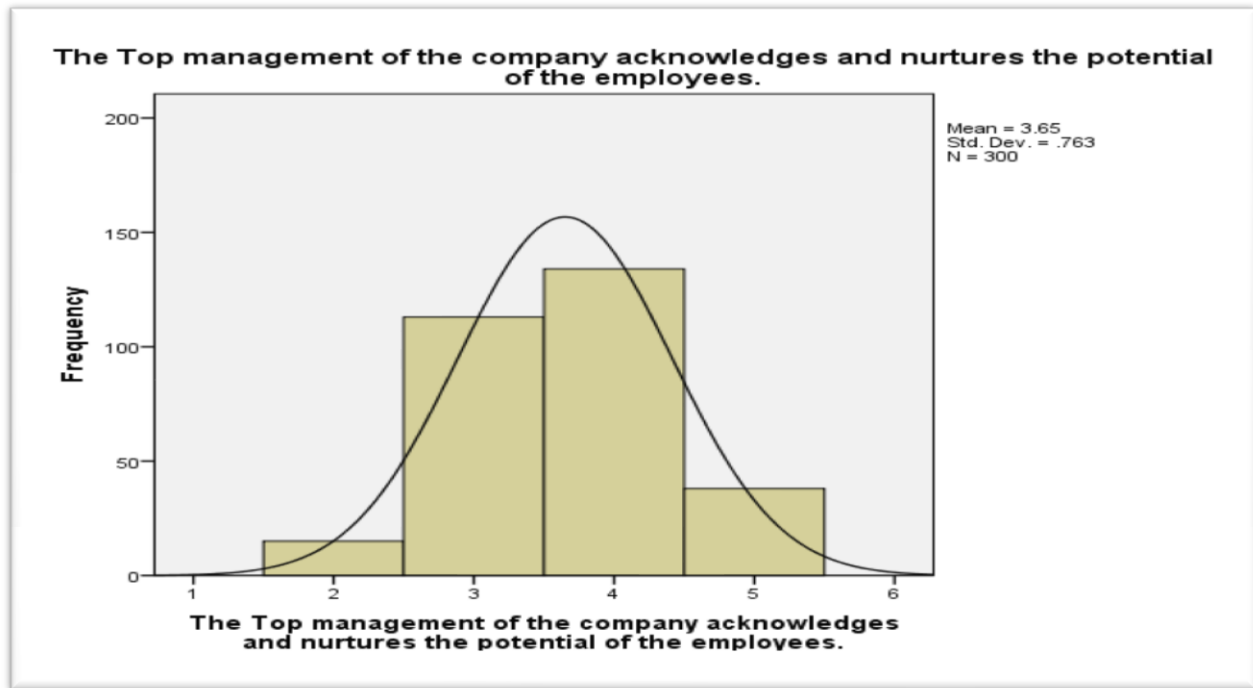
(Source: Primary Data)

Mean= 3.65, COV= 20.904 %

COV is less than 33%. This indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is positive value (0.006) the positive value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrated on the right of the graph.

The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study. Hence it can be affirmed that employees of chemical industries moderately agree that the top management of this organisation makes efforts to identify and utilize the potential of the employees**.**

From the frequency distribution table, it can be seen that 5.0% employees say that rarely true, that the top management of this organisation makes efforts to identify and utilize the potential of the employees**.,**37.7% says it is that sometimes true, **44.7%** say it is mostly true, 12.7 % says it is almost always true.

Hence majority of employees believes that, the top management of their organisation takes efforts to identify and utilize the potential of the employees.

Q-49. When employees does good work his supervising officers take special care to appreciate it.

*Table: 4.59. Employee's good works his supervising officers take special care to appreciate it.***(Histogram)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	6	2.0	2.0	2.0
	Rarely true	53	17.7	17.7	19.7
	Sometimes true	127	**42.3**	42.3	62.0
	Mostly true	95	31.7	31.7	93.7
	Almost always true	19	6.3	6.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Q-49. The supervising officers always appreciate the effective work done by employees.

Table:4.60. **The supervising officers always appreciate the effective work done by employees.**

Mean	**3.23**
Standard Deviation	0.882
Skewness	-0.077
Kurtosis	-0.269
COV+(Standard Deviation/Mean)*100	**27.306**

(Source: Primary Data)

The supervising officers always appreciate the effective work done by employees
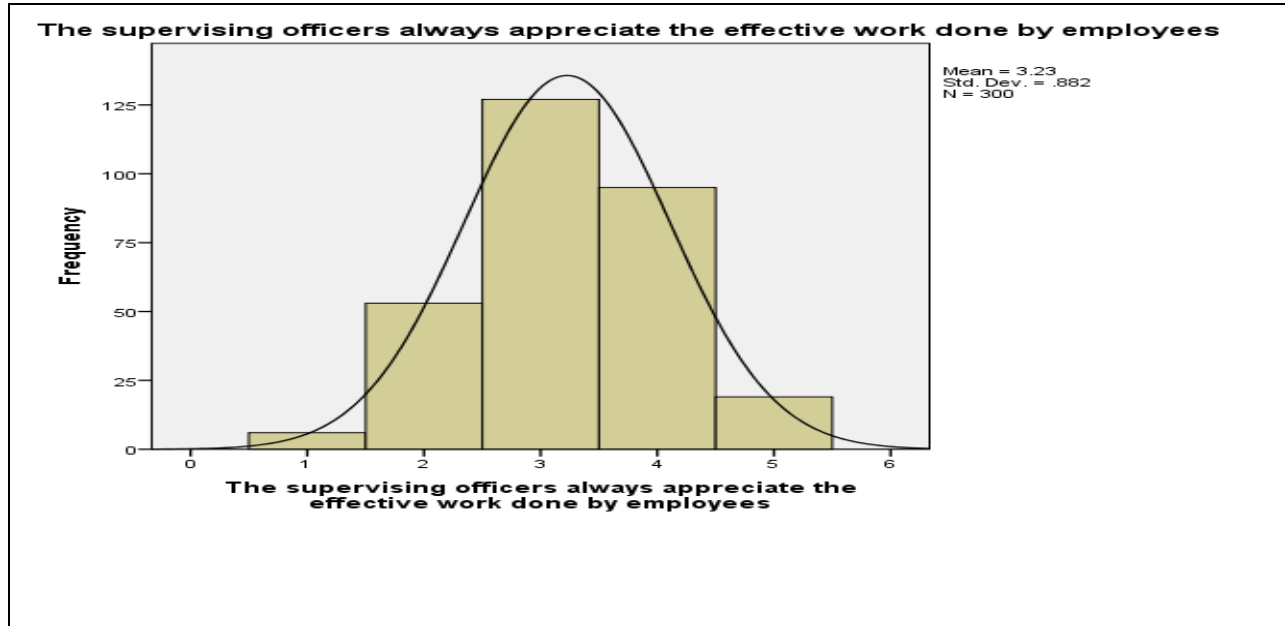
(Source: Primary Data)

Mean= 3.23, COV= 27.306 %

COV is less than 33%. This is indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (-0.077) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrated on the right of the graph.

The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be concluded that employees of chemical industries moderately agree that when employees does good work his supervising officers take special care to appreciate it.

Interpretation:-

From the frequency distribution table, it can be seen that 2.0% employees says that not at all true that When employees does good work his supervising officers take special care to appreciate it.,17.7% says it is that rarely true, **42.3%** says it is sometimes true 31.7% says that mostly true. 6.3 % says it is almost always true.

Hence majority of employees believe that, when employees does good work his supervising officers take special care to appreciate it.

Q-50. People in the organisation do not carry any fixed mental impression about each other.

Table:4.61. People in this organisation do not have any fixed mental impressions about each other **(Histogram)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	1	.3	.3	.3
	Rarely true	69	23.0	23.0	23.3
	Sometimes true	134	**44.7**	44.7	68.0
	Mostly true	84	28.0	28.0	96.0
	Almost always true	12	4.0	4.0	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table:4.62. People in this organization do not have any fixed mental impressions about each other.*(COV)*

Mean	**3.12**
Standard Deviation	0.819
Skewness	0.173
Kurtosis	-0.535
COV+(Standard Deviation/Mean)*100	**26.25**

(Source: Primary Data)

Graph:4.50. People in this organization do not have any fixed mental impressions about each other.

People in the organisation do not carry any fixed mental impression about each other.

Mean = 3.12
Std. Dev. = .819
N = 300
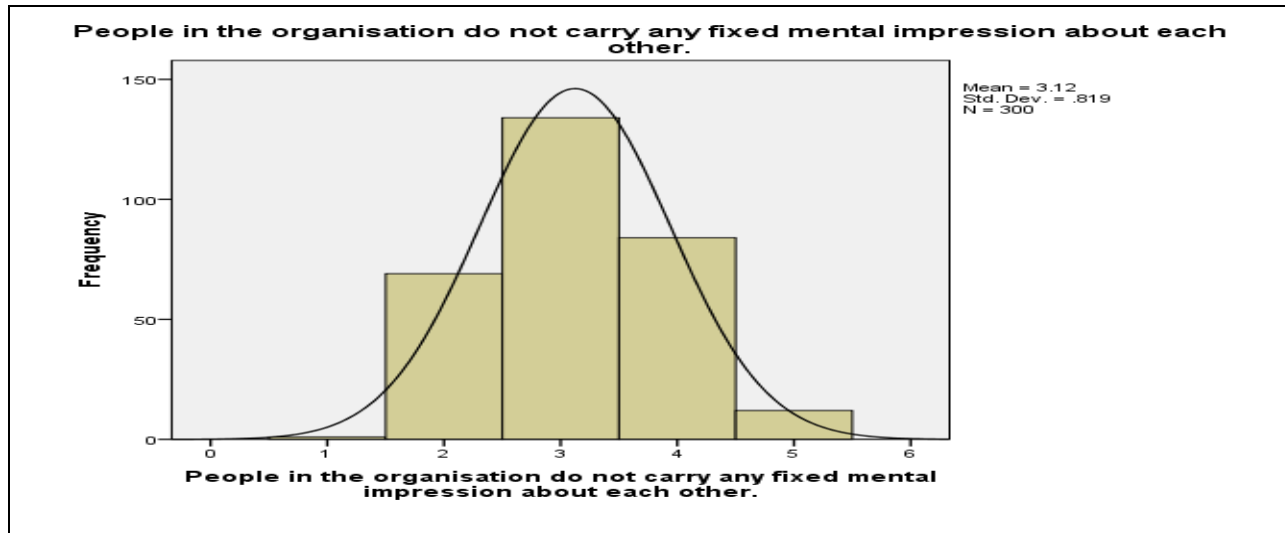
(Source: Primary Data)

Mean= 3.12, COV= 26.25 %

COV is less than 33% this is indicate that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (-0.173) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrated on the right of the graph.

The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Interpretation:-

From the frequency distribution table it can be seen that 3.0% employees say that not at all true that When employees does good work his supervising officers take special care to appreciate it.,23.0% says it is that rarely true, **44.7%** says it is sometimes true,28.0% says that mostly true and 4.0 % says it is almost always true.

Hence majority of respondents believe that, employees in their organization do not have any fix mental impression about each other, in other words their bias is not affected.

Q-51. Mistakes of employees are conveyed in a mild manner.

Table:4.63. Mistakes of employees are conveyed in a mild manner.(Histogram)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	4	1.3	1.3	1.3
	Rarely true	37	12.3	12.3	13.7
	Sometimes true	113	37.7	37.7	51.3
	Mostly true	115	**38.3**	38.3	89.7
	Almost always true	31	10.3	10.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table:4.64. Mistakes of employees are conveyed in a mild manner.

Mean	**3.44**
Standard Deviation	0.885
Skewness	-0.196
Kurtosis	-0.243
COV+(Standard Deviation/Mean)*100	**25.726**

(Source: Primary Data)

Graph:4.51.. **Mistakes of employees are conveyed in a mild manner.**
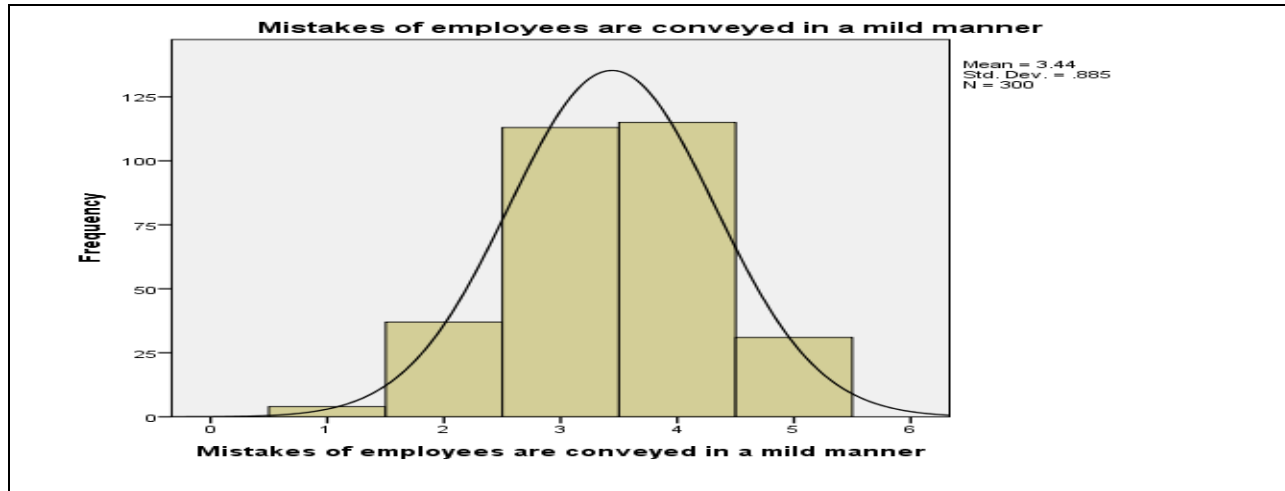
Mean= 3.44, COV= 25.726 %

COV is less than 33%. This indicated that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (-0.196) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrated on the right of the graph.

The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be concluded that employees of chemical industries moderately agree that Weaknesses of employees are communicated to them in a non-threatening way.

Interpretation:-

From the frequency distribution table it can be seen that 1.3% employees says that not at all true that Weakness of employees are communicated to them in a non-threatening way,12.3% says it is that rarely true, 37.7% says it is sometimes true **38.3%** says that mostly true and 10.3 % says it is almost always true.

Hence majority of employees had agreed that their mistakes and weakness of employees is communicated to them in a non-threatening manner.

Q-52. The behaviour feedback informed to employees is taken seriously by them.

Table:4.65.The behaviour feedback informed to employees is taken seriously by them(Histogram)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	8	2.7	2.7	2.7
	Rarely true	45	15.0	15.0	17.7
	Sometimes true	124	**41.3**	41.3	59.0
	Mostly true	96	32.0	32.0	91.0
	Almost always true	27	9.0	9.0	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table: 4.66.The behaviour feedback informed to employees is taken seriously by them.(COV)

Mean	**3.3**
Standard Deviation	0.923
Skewness	-0.135
Kurtosis	0.199
COV+(Standard Deviation/Mean)*100	**27.969**

(Source: Primary Data)

*Graph:4.52.*The behaviour feedback informed to employees is taken seriously by them

The behaviour feedback informed to employees is taken seriously by them.

Mean = 3.3
Std. Dev. = .923
N = 300
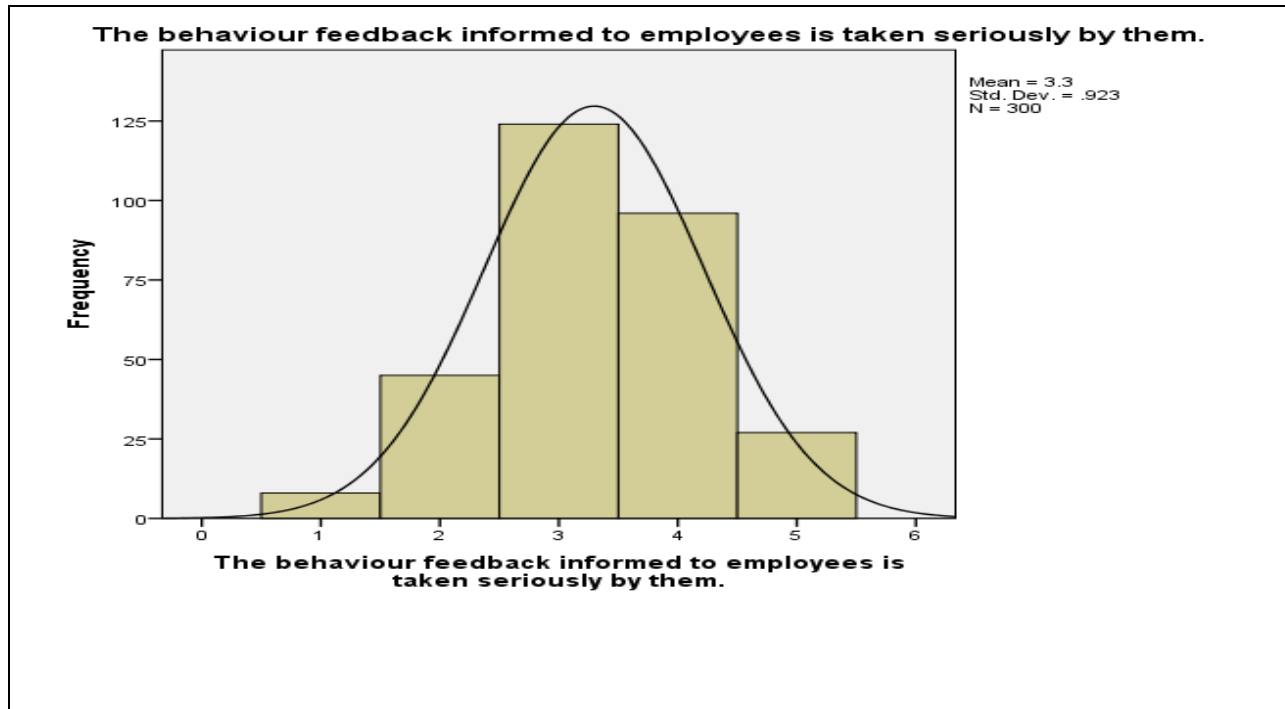
(Source: Primary Data)

Mean= 3.3 COV= 27.969 %

COV is less than 33%. This indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value. Skewness is negative value (-0.135) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrating on the right of the graph. The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be concluded that employees of chemical industries moderately agree that when behavior feedback is given to employees they take it seriously and use it for their development.

Interpretation:-

From the frequency distribution table it can be seen that 2.7% employees says that it is not at all true that the When behavior feedback is given to employees they take it seriously and use it for development, 15.0% says it is that rarely true, **41.3%** says it is sometimes true 32.0% says that mostly true and 9.0% says it is almost always true.

Hence majority of employees believes that, top management believes that when behavior feedback is given to employees they take it seriously and use it for development.

Q-53. Employees in the organisation take efforts to understand their potential and weakness from the supervising authority and colleagues

Table: 4.67.Employees in the organisation underline the potential and weakness their supervising.(Histogram)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	4	1.3	1.3	1.3
	Rarely true	26	8.7	8.7	10.0
	Sometimes true	114	38.0	38.0	48.0
	Mostly true	123	**41.0**	41.0	89.0
	Almost always true	33	11.0	11.0	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table: 4.68. Employees in the organisation underline the potential and weakness their supervising.

Mean	**3.52**
Standard Deviation	0.852
Skewness	-0.265
Kurtosis	0.034
COV+(Standard Deviation/Mean)*100	**24.204**

(Source: Primary Data)

Graph:4.53. Employees in the organisation underline the potential and weakness their supervising.

Employees in the organisation underline the potential and weakness their supervising.

Mean = 3.52
Std. Dev. = .852
N = 300
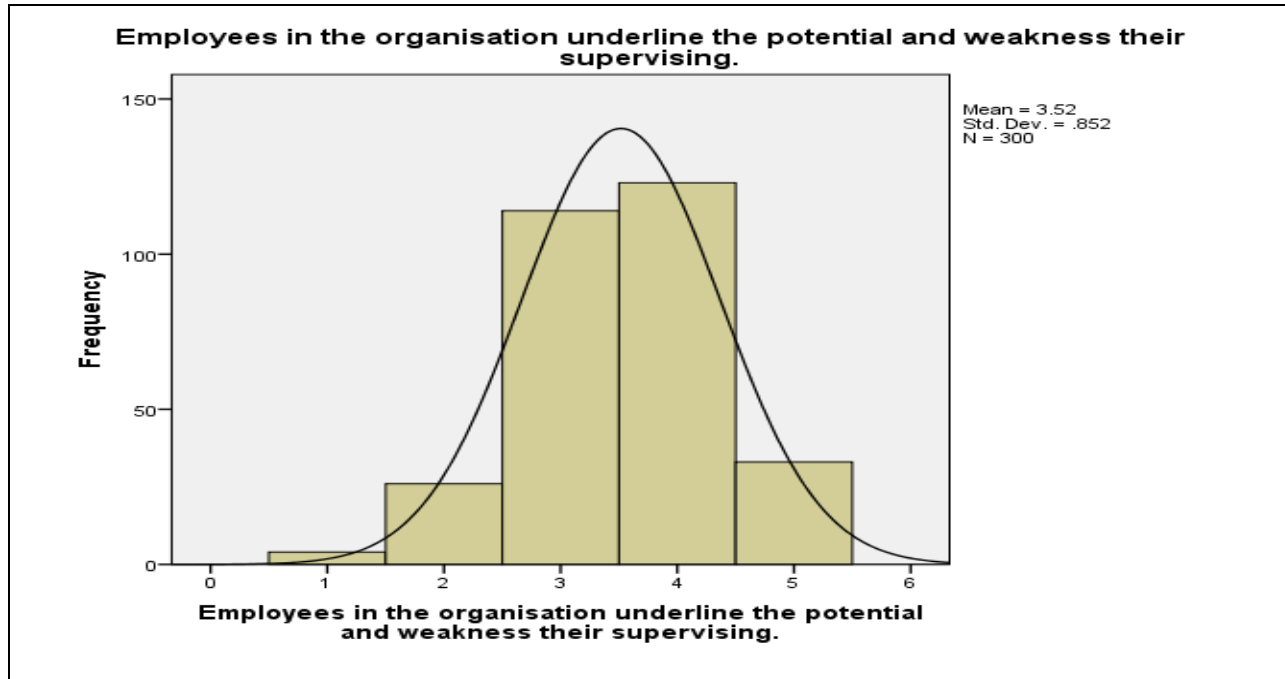
(Source: Primary Data)

Mean= 3.52 COV= 24.204 %

COV is less than 33%. This indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (-0.265) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrating on the right of the graph. The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be affirmed that employees of chemical industries moderately agree that Employees in their organisation take pains to find out their strengths and weakness from their supervising officers or colleagues.

*Interpretation***:-**

From the frequency distribution table it can be shown that 1.3.% employees says that it is not at all true that the Employees in this organisation take pains to find out their strengths and weakness from their supervising officers or colleagues, 8.7% says it is that rarely true, 38.0% says it is sometimes true **41.0%** says that mostly true. 11.0% says it is almost always true.

Hence majority of employees believe that, employees in their organisation take pains to find out their strengths and weakness from their supervising officers or colleague.

Q-54. When organisation sponsors employees for training, they learn from it seriously.

Table: 4.69. *When organisation sponsors employees for training, they learn from it seriously.*
(Histogram)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	5	1.7	1.7	1.7
	Rarely true	9	3.0	3.0	4.7
	Sometimes true	82	27.3	27.3	32.0
	Mostly true	137	**45.7**	45.7	77.7
	Almost always true	67	22.3	22.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table: 4.70. When organisation sponsors employees for training, they learn from it seriously.

Mean	**3.84**
Standard Deviation	0.862
Skewness	-0.599
Kurtosis	0.615
COV+(Standard Deviation/Mean)*100	**22.447**

(Source: Primary Data)

Graph: 4.54. When organisation sponsors employees for training, they learn from it seriously.
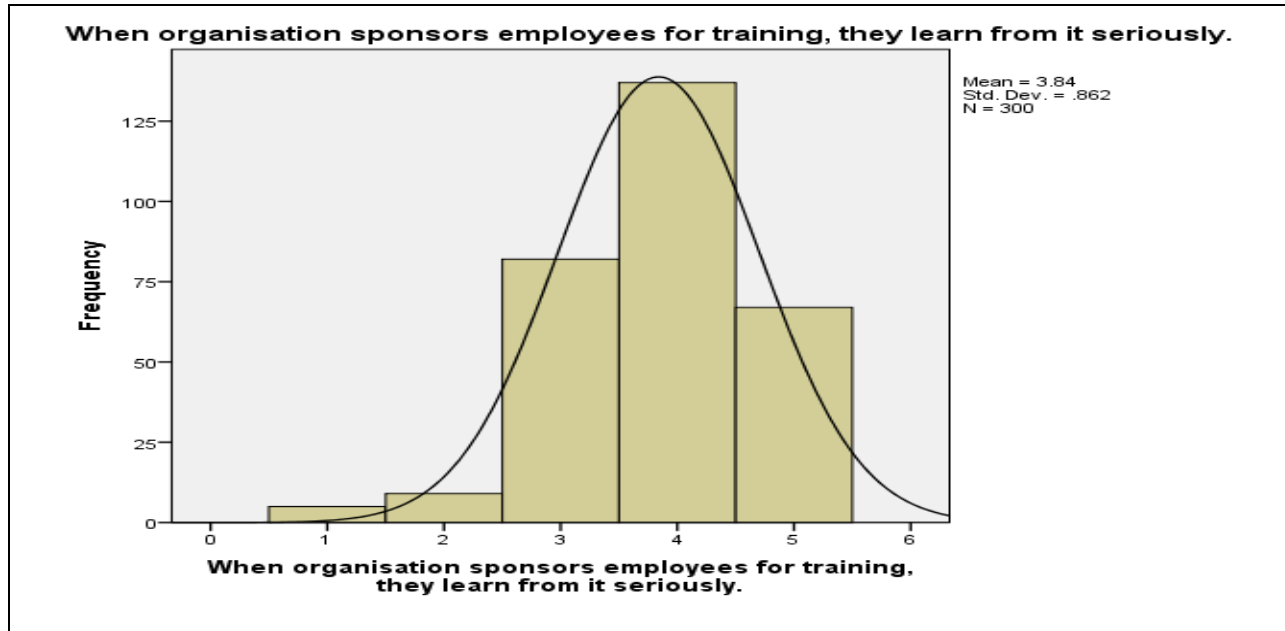
(Source: Primary Data)

Mean= 3.84 COV= 22.447 %

COV is less than 33%. This indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (-0.599) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrating on the right of the graph. The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be concluded that employees of chemical industries moderately agree that when employees are sponsored for training; they take it seriously and try to learn from the programmes.

Interpretation:-

From the frequency distribution table it can be highlighted that 1.7.% employees says that it is not at all true that the When employees are sponsored for training; they take it seriously and try to learn from the programmes they added, 3.0% says it is that rarely true, 27.3% says it is sometimes true **45.7%** says that mostly true. 22.3% says it is almost always true.

Hence majority of employees believes that, when employees are sponsored for training; they take it seriously and try to learn from the programmes.

Q-55. Employers sponsor training programme according to the training needs of employees

Table:4.71. Employers sponsor training programme according to the training needs of employees (Histogram)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	7	2.3	2.3	2.3
	Rarely true	65	21.7	21.7	24.0
	Sometimes true	153	**51.0**	51.0	75.0
	Mostly true	65	21.7	21.7	96.7
	Almost always true	10	3.3	3.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table:4.72. Employers sponsor training programme according to the training needs of employees.

Mean	**3.02**
Standard Deviation	0.814
Skewness	0.076
Kurtosis	0.090
COV+(Standard Deviation/Mean)*100	**26.95**

(Source: Primary Data)

Graph:4.55. Employers sponsor training programme according to the training needs of employees.

Employers sponsor training programme according to the training needs of employees.

Mean = 3.02
Std. Dev. = .814
N = 300
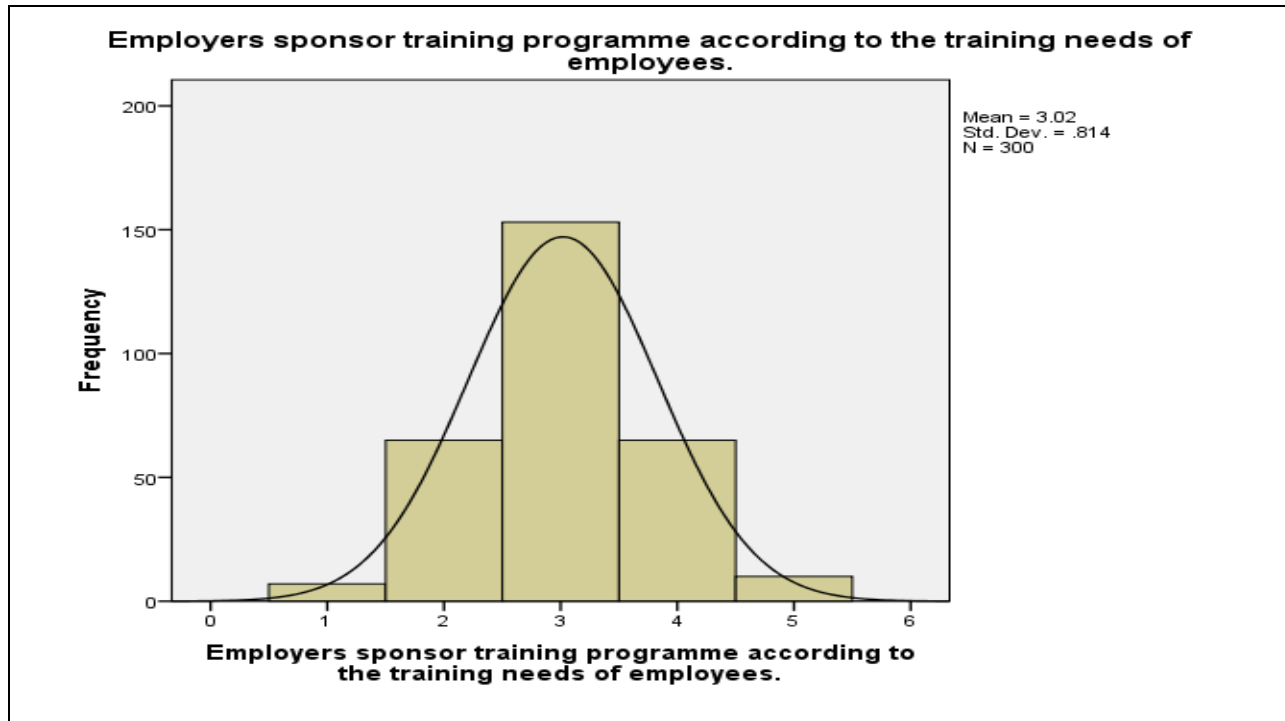
(Source: Primary Data)

Mean= 3.02 COV= 26.95%

COV is less than 33%. This indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (0.076) the positive value of skewness indicates that the curve is right skewness and most of the data for their variables are concentrating on the left of the graph. The negative value of kurtosis indicates that the curve is narrow and is tall.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be affirmed that employees of chemical industries moderately agree that employees are sponsors for training programmes on the basis of genuine training needs.

Interpretation:-

From the frequency distribution table, it can be understood that 2.3.% employees says that it is not at all true that the When employees are sponsors for training programmes on the basis of genuine training needs, 21.7 % says it is that rarely true, **51.00%** says it is sometimes true 21.7% says that mostly true. 3.3% says it is almost always true.

Hence majority of employees believe that, Employees are sponsors for training programmes on the basis of genuine training needs.

Q-56. Peoples are trustworthy towards each other in the organisation

Table:4.73. **Peoples are trustworthy towards each other in the organisation.(Histogram)**

	Frequency	Percent	Valid Percent	Cumulative Percent
Not at all true	11	3.7	3.7	3.7
Rarely true	62	20.7	20.7	24.3
Sometimes true	137	**45.7**	45.7	70.0
Mostly true	77	25.7	25.7	95.7
Almost always true	13	4.3	4.3	100.0
Total	300	100.0	100.0	

(Source: Primary Data)

Table:4.74.. **Peoples are trustworthy towards each other in the organisation.**

Mean	**3.06**
Standard Deviation	0.884
Skewness	-0.066
Kurtosis	-0.124
COV+(Standard Deviation/Mean)*100	**28.888**

(Source: Primary Data)

Graph: 4.56. **Peoples are trustworthy towards each other in the organisation.**
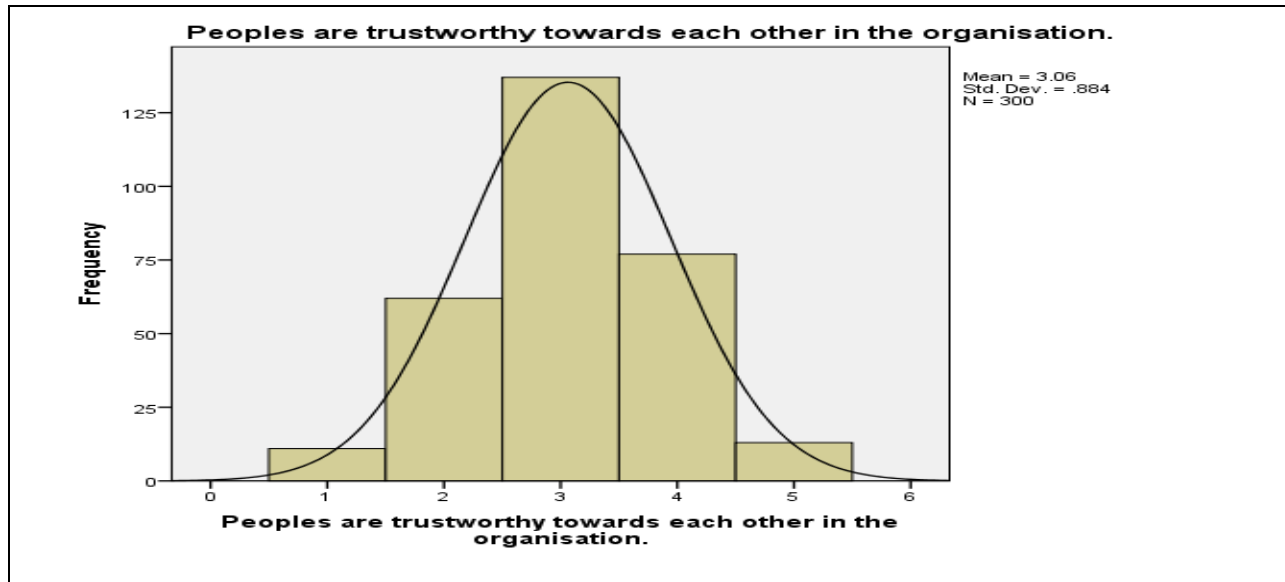
(Source: Primary Data)

Mean= 3.06 COV= 28.888 %

COV is less than 33%. This indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (-0.066) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrating on the right of the graph. The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be concluded that employees of chemical industries moderately agree that Peoples trust each other in this organisation

Interpretation:-

From the frequency distribution table, it can be shown that 3.7. % employees says that it is not at all true that the. People trust each other in this organisation, 20.7% says it is that rarely true, **45.7%** says it is sometimes true 25.7% says that mostly true and 4.3% says it is almost always true.

Hence majority of employees believes that People trust each other.

Q-57. Employees open mindedly express their views with the supervisors.

Table:4.75. Employees open mindedly express their views with the supervisors.(Histogram)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	29	9.7	9.7	9.7
	Rarely true	96	32.0	32.0	41.7
	Sometimes true	126	**42.0**	42.0	83.7
	Mostly true	36	12.0	12.0	95.7
	Almost always true	13	4.3	4.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table:4.76. Employees open mindedly express their views with the supervisors.

Mean	**2.69**
Standard Deviation	0.953
Skewness	0.275
Kurtosis	0.004
COV+(Standard Deviation/Mean)*100	**35.427**

(Source: Primary Data)

Graph: 4.57. **Employees open mindedly express their views with the supervisors.**
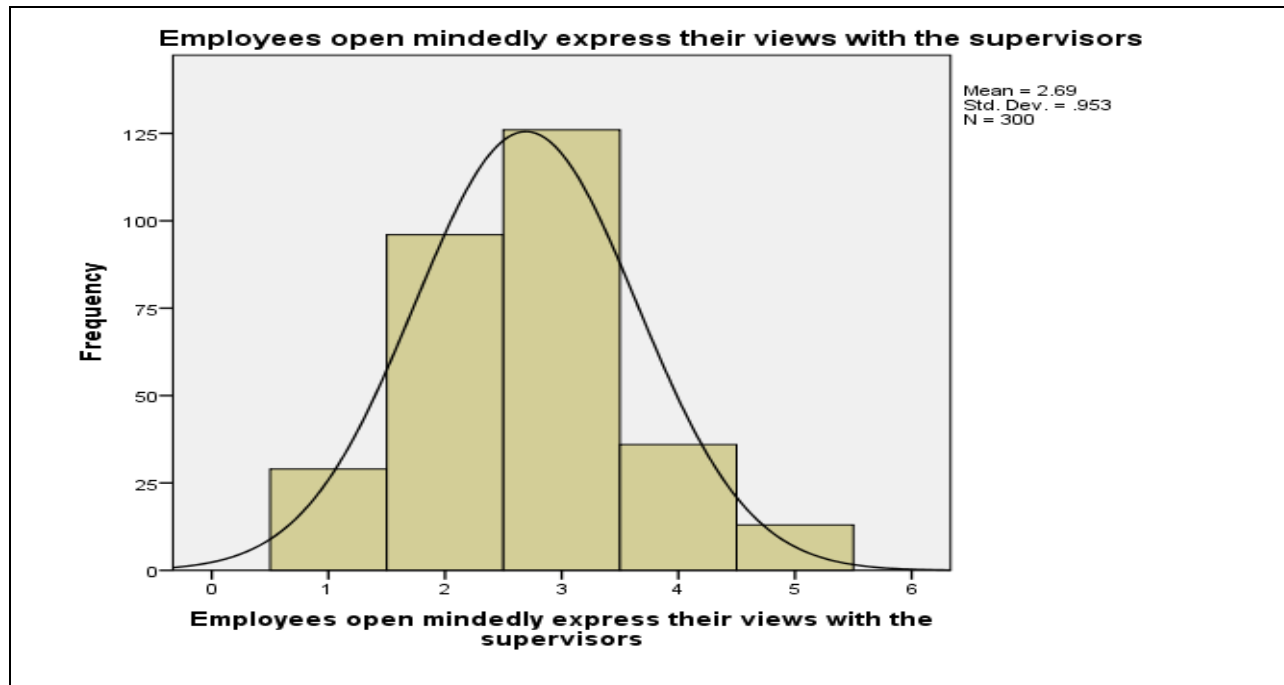
(Source: Primary Data)

Mean= 2.69 COV= 35.427 %

COV is greater than 33%. This indicates that there is more disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is positive value (0.275) the positive value of skewness indicates that the curve is right skewness and most of the data for their variables are concentrating on the left of the graph. The positive value of kurtosis indicates that the curve is normal and tall

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be concluded that employees of chemical industries moderately agree that Employees are not afraid to express or their feelings with their supervisors.

*Interpretation***:-**

From the frequency distribution table, it can be seen that 9.7 % employees says that it is not at all true that the**.** Employees are not afraid to express or their feelings with their supervisors, 32.0% says it is that rarely true, **42.0%** says it is sometimes true 12.0% says that mostly true and 4.3% says it is almost always true.

Hence majority of employees believe that Employees are not afraid to express or to share their feelings and opinions with their supervisors.

Q-58.Authority open mindedly express their views with the subordinates

*Table:4.77.***Authority open mindedly express their views with the subordinates**

Q-58.Authority open mindedly express their views with the subordinates					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	27	9.0	9.0	9.0
	Rarely true	74	24.7	24.7	33.7
	Sometimes true	97	**32.3**	32.3	66.0
	Mostly true	75	25.0	25.0	91.0
	Almost always true	27	9.0	9.0	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table:4.78.Authority **open mindedly express their views with the subordinates**

Mean	**3.00**
Standard Deviation	1.105
Skewness	-0.007
Kurtosis	-0.711
COV+(Standard Deviation/Mean)*100	**36.833**

(Source: Primary Data)

Graph:4.58. Authority **open mindedly express their views with the subordinates**
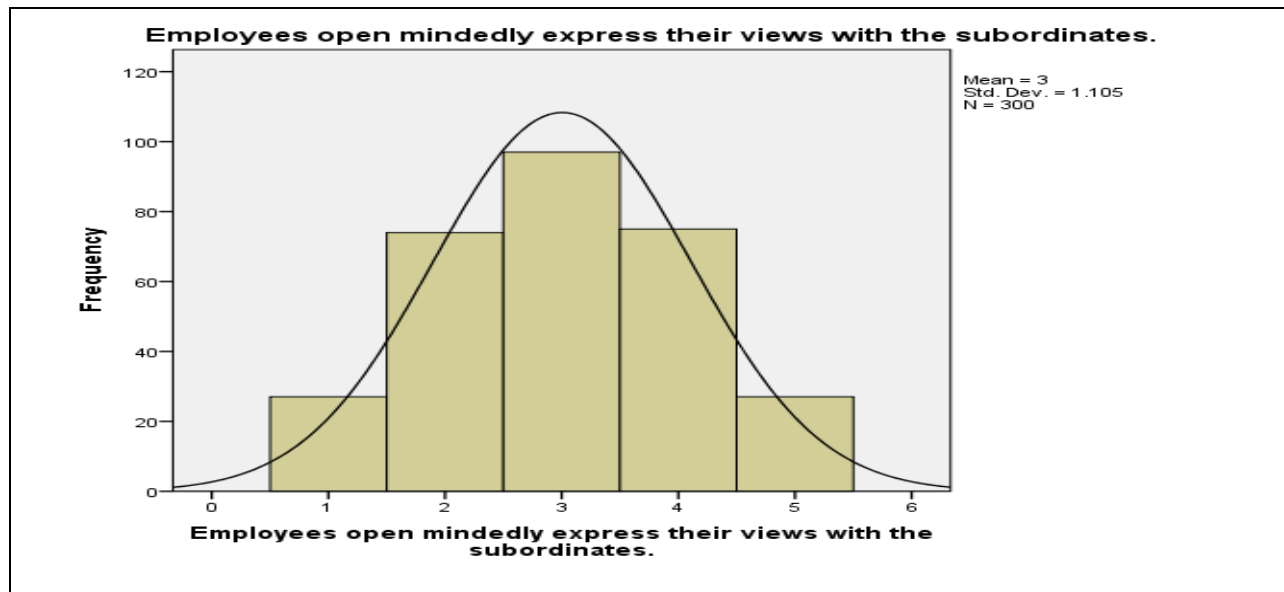
(Source: Primary Data)

Mean= 3.00 COV= 36.833 %

COV is more than 33%. This indicates that there is more disparity in the data set.

Hence there is more dispersion in the sample data therefore; the mean value fails to represent the sample data well. Hence the frequency distribution table is referred for interpretation purpose.

Skewness is negative value (-0.007) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrating on the right of the graph. The positive value of kurtosis indicates that the curve is short and spread.

*Interpretation***:**

From the frequency distribution table it can be seen that 9.0.% employees says that it is not at all true that the Employee is not afraid to express or discuss their feelings with their subordinates, 24.7% says it is that rarely true, **32.3%** says it is sometimes true 25.0% says that mostly true. 9.0% says it is almost always true.

Hence majority of employees believe that, Authorities express or discuss their views with their subordinates.

Q-59. Delegation of authority is a normal procedure in the organisation to motivate the subordinates in dealing with higher responsibilities

Table: 4.79. **Delegation of authority is a normal procedure in the organisation to motivate the subordinates in dealing with higher responsibilities**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	13	4.3	4.3	4.3
	Rarely true	73	24.3	24.3	28.7
	Sometimes true	127	**42.3**	42.3	71.0
	Mostly true	68	22.7	22.7	93.7
	Almost always true	19	6.3	6.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table:4.80. **Delegation of authority is a normal procedure in the organisation to motivate the subordinates in dealing with higher responsibilities (COV)**

Mean	**3.02**
Standard Deviation	0.948
Skewness	0.095
Kurtosis	-0.287
COV+(Standard Deviation/Mean)*100	**31.390**

(Source: Primary Data)

Graph: 4.59. Delegation of authority is a normal procedure in the organisation to motivate the subordinates in dealing with higher responsibilities

Delegation of authority is a normal procedure in the organisation to motivate the subordinates in dealing with higher responsibilities.

Mean = 3.02
Std. Dev. = .948
N = 300

Delegation of authority is a normal procedure in the organisation to motivate the subordinates in dealing with higher responsibilities.
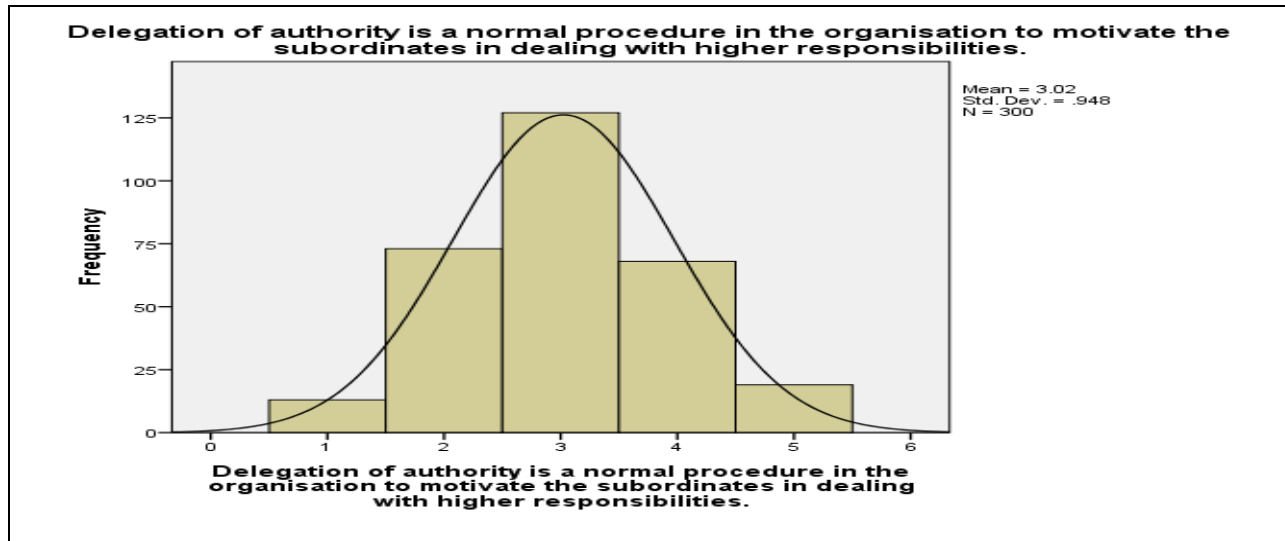
(Source: Primary Data)

Mean= 3.02, COV= 31.390 %

COV is less than 33%. This indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is positive value (0.095) the positive value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrating on the right of the graph. The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be concluded that employees of chemical industries moderately agree that delegation of authority to encourage juniors to develop handling higher responsibilities is quite common in this organization.

*Interpretation***:-**

From the frequency distribution table, it can be shown that 4.7. % employees says that it is not at all true that the delegation of authority to encourage juniors to develop handling higher

responsibilities is quite common in this organisation, 24.3% says it is that rarely true, **42.3%** says it is sometimes true 27.7% says that mostly true and 6.3% says it is almost always true.

Hence majority of employees believe that, Delegation of authority to encourage juniors to develop handling higher responsibilities is quite common in this organization.

Q-60. Team spirit is of higher order in this organisation.

Table:4.81. **Team spirit is of higher order in this organisation.**

Q-60. Team spirit is of higher order in this organisation.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	14	4.7	4.7	4.7
	Rarely true	79	26.3	26.3	31.0
	Sometimes true	133	**44.3**	44.3	75.3
	Mostly true	67	22.3	22.3	97.7
	Almost always true	7	2.3	2.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table:4.82. **Team spirit is of higher order in this organisation.**

Mean	**2.91**
Standard Deviation	0.873
Skewness	-0.044
Kurtosis	-0.273
COV+(Standard Deviation/Mean)*100	**30.00**

(Source: Primary Data)

Graph: 4.60. Team spirit is of higher order in this organisation.

Team spirit is of higher order in this organization

Mean = 2.91
Std. Dev. = .873
N = 300
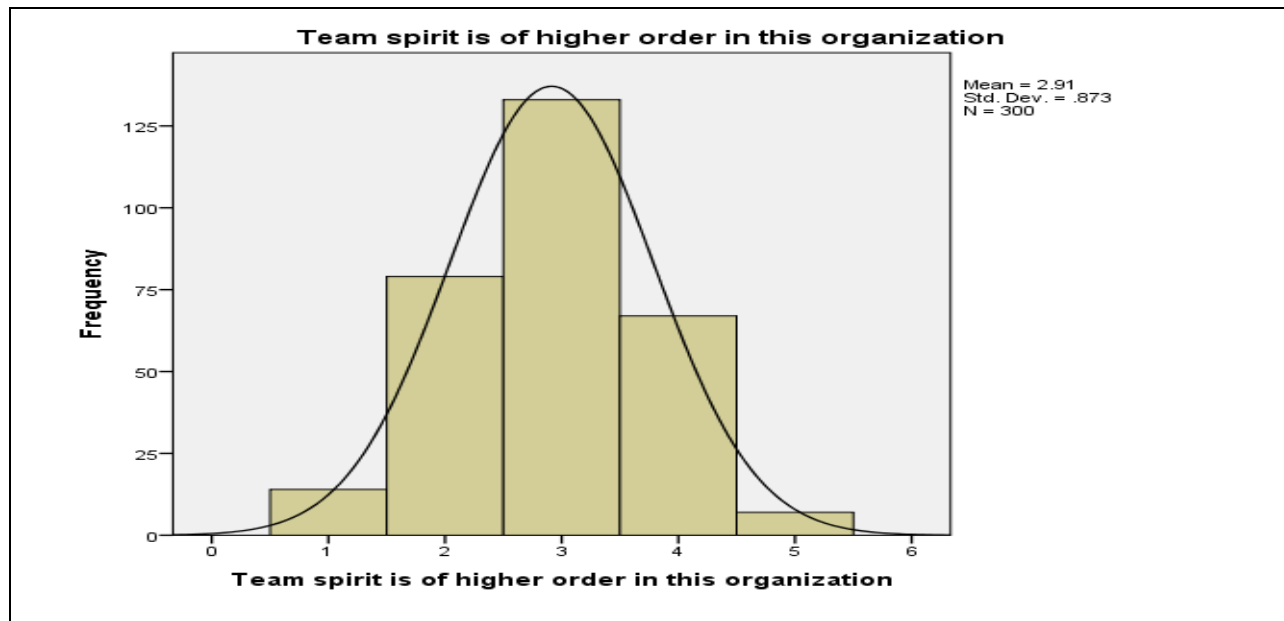
(Source: Primary Data)

Mean= 2.91, COV= 30.00 %

COV is less than 33%. This indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (-0.044) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrating on the right of the graph. The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be concluded that employees of chemical industries moderately agree that team spirit is of higher order in their organisation.

*Interpretation***:-**

From the frequency distribution table it can be seen that 4.7.% employees says that it is not at all true that the Team spirit is of higher order in this organization, 26.3% says it is that rarely true, **44.3%** says it is sometimes true 22.3% says that mostly true and 2.3% says it is almost always true.

Hence majority of employees believes that Team spirit is of higher order in their organisation.

Q-61. When a problem crops ups, it is discussed frankly rather than back-biting and accusation.

Table: 4.83. When a problem crops ups, it is discussed frankly rather than back-biting and accusation. (Histogram)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	18	6.0	6.0	6.0
	Rarely true	103	34.3	34.3	40.3
	Sometimes true	118	**39.3**	39.3	79.7
	Mostly true	49	16.3	16.3	96.0
	Almost always true	12	4.0	4.0	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table: 4.84. When a problem crops ups, it is discussed frankly rather than back-biting and accusation. (COV)

Mean	**2.78**
Standard Deviation	0.928
Skewness	0.300
Kurtosis	-0.181
COV+(Standard Deviation/Mean)*100	**33.381**

(Source: Primary Data)

Graph: 4.61. **When a problem crops ups, it is discussed frankly rather than back-biting and accusation.**

When a problem crops ups, it is discussed frankly rather than back-biting and accusation.

Mean = 2.78
Std. Dev. = .928
N = 300
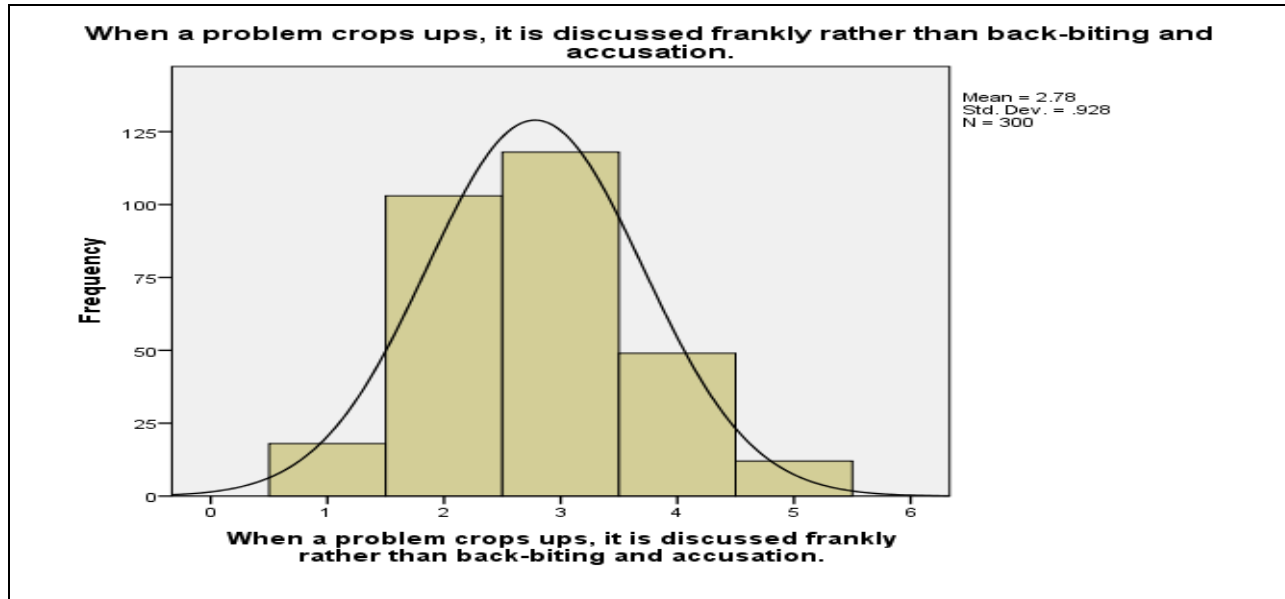
(Source: Primary Data)

Mean= 2.78, COV= 33.381 %

COV is more than 33%. This indicates that there is more disparity in the data set.

Hence there is more dispersion in the sample data. Hence the mean value fails to represent the sample data well. Hence the frequency distribution table is referred for interpretation purpose.

Skewness is positive value (0.300) the positive value of skewness indicates that the curve is right skewness and most of the data for their variables are concentrating on the left of the graph. The positive value of kurtosis indicates that the curve is normal and is tall.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be concluded that employees of chemical industries moderately agree that when problem arise people discuss these problems openly and try to solve them rather than keep accusing each other behind the back.

Interpretation:-

From the frequency distribution table it can be displayed that 6.0. % employees says that it is not at all true that the When problem arise people discuss these problems openly and try to solve them rather than keep accusing each other behind the back**.**, 34.3% says it is that rarely true, **39.3%** says it is sometimes true 16.3% says that mostly true. 4.0% says it is almost always true.

Hence majority of employees believe that when problem arise people discuss these problems openly and try to solve them rather than keep accusing each other behind the back.

Q-62. Juniors are helped with career opportunities by the senior officers

Table: 4.85. Juniors are helped with career opportunities by the senior officers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	14	4.7	4.7	4.7
	Rarely true	71	23.7	23.7	28.3
	Sometimes true	115	**38.3**	38.3	66.7
	Mostly true	78	26.0	26.0	92.7
	Almost always true	22	7.3	7.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table:4.86. Juniors are helped with career opportunities by the senior officers

Mean	**3.08**
Standard Deviation	0.987
Skewness	0.014
Kurtosis	-0.464
COV+(Standard Deviation/Mean)*100	**32.045**

(Source: Primary Data)

Graph: 4.62. **Juniors are helped with career opportunities by the senior officers**

Juniors are helped with career opportunities by the senior officers.

Mean = 3.08
Std. Dev. = .987
N = 300
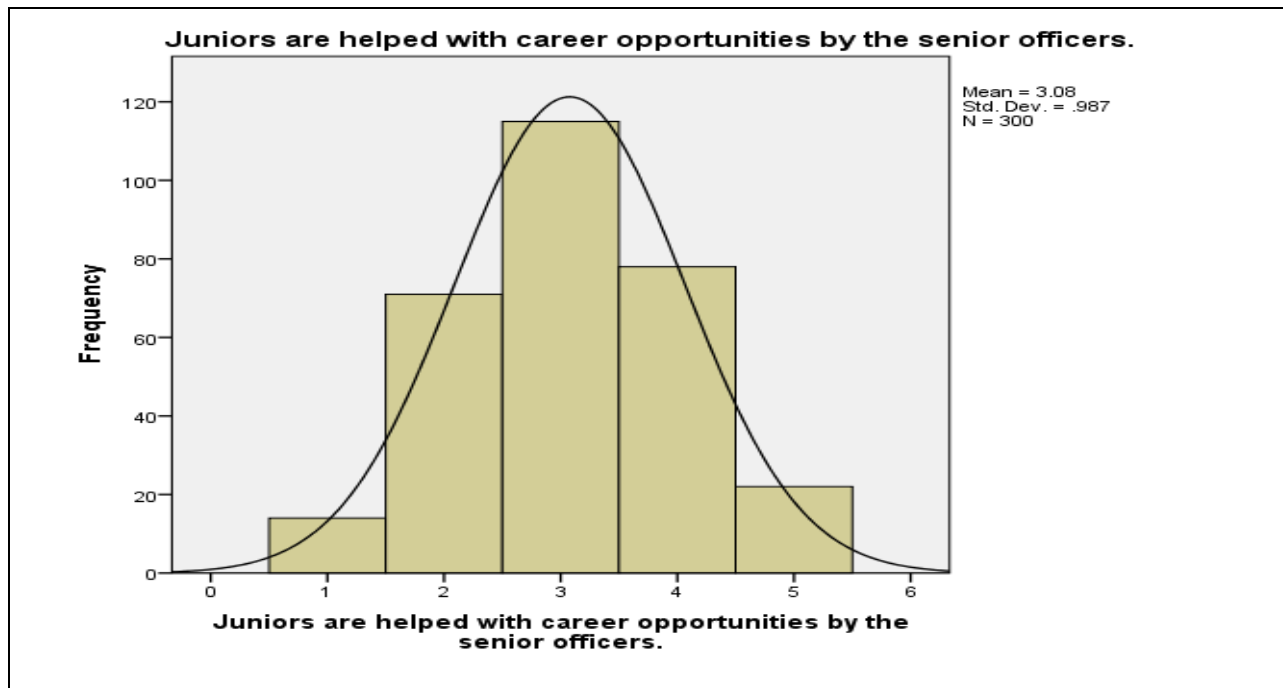
(Source: Primary Data)

Mean= 3.08, COV= 32.045 %

COV is less than 33%. This indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (0.014) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrating on the right of the graph. The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be concluded that employees of chemical industries moderately agree that Career opportunities are pointed out to juniors by senior officers in the organisation.

Interpretation:-

From the frequency distribution table, it can be seen that 4.7 % employees says that it is not at all true that the Career opportunities are pointed out to juniors by senior officers in the organisation, 23.7% says it is that rarely true, **38.3%** says it is sometimes true 26.00% says that mostly true and 7.3% says it is almost always true.

Hence majority of employees believe that Career opportunities are pointed out to juniors by senior officers in the organization.

Q-63. The organisation informs the future plan to Management cadre so that they can nurture Juniors for the same.

Table:4.87. The organisation informs the future plan to Management cadre so that they can nurture Juniors for the same.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	4	1.3	1.3	1.3
	Rarely true	17	5.7	5.7	7.0
	Sometimes true	90	30.0	30.0	37.0
	Mostly true	134	**44.7**	44.7	81.7
	Almost always true	55	18.3	18.3	100.0
	Total	300	100.0	100.0	

(Source: Primary Data)

Table:4.88. The organisation informs the future plan to Management cadre so that they can nurture Juniors for the same.

Mean	**3.37**
Standard Deviation	0.872
Skewness	-0.453
Kurtosis	0.185
COV+(Standard Deviation/Mean)*100	**23.37**

(Source: Primary Data)

Graph: 4.63. **The organisation informs the future plan to Management cadre so that they can nurture juniors for the same.**

The organisation informs the future plan to Management cadre so that they can nurture Juniors for the same.

Mean = 3.73
Std. Dev. = .872
N = 300
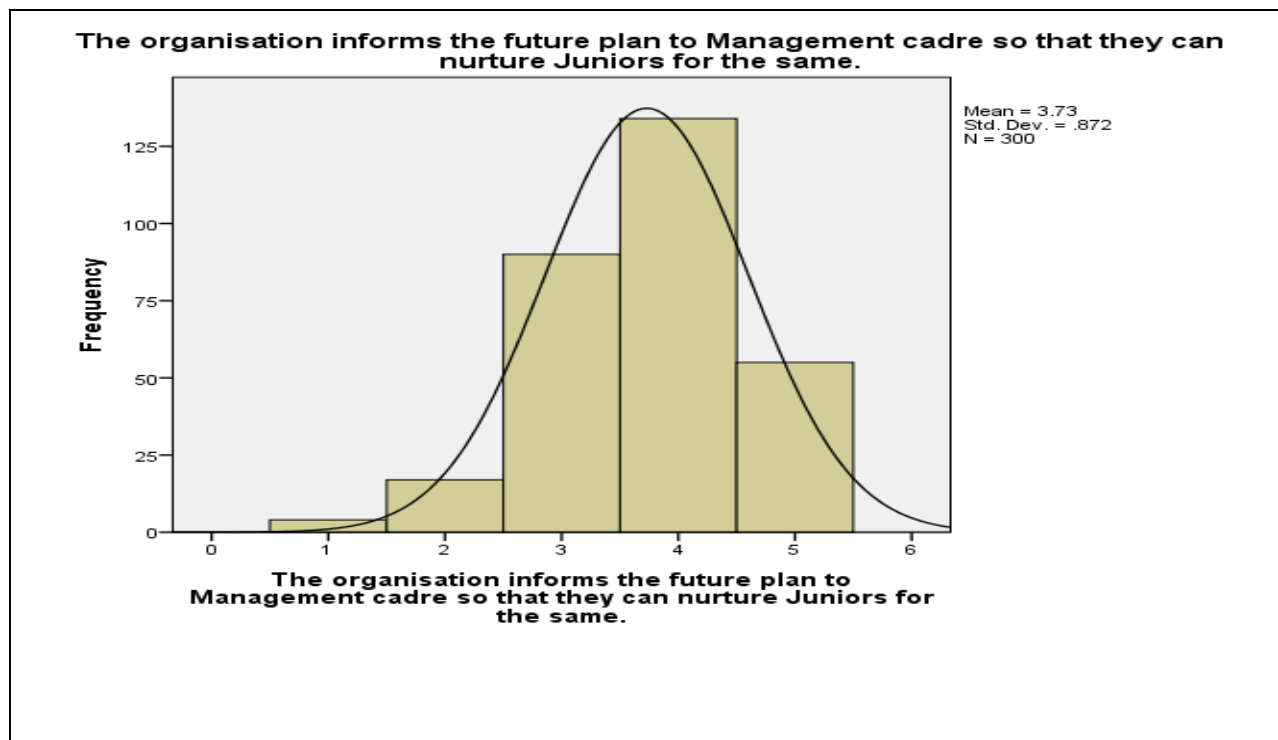
(Source: Primary Data)

Mean= 3.37, COV= 23.37 %

COV is less than 33%. This indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (-0.453) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrating on the right of the graph. The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence it can be affirmed that employees of chemical industries moderately agree that the organizations future plans are made known to the managerial staff to help them develop their juniors and prepare them for future.

Interpretation:-

From the frequency distribution table, it can be seen that 1.3. % employees says that it is not at all true that the organisation future plans are made known to the managerial staff to help them develop their juniors and prepare them for future**,** 5.7% says it is that rarely true, 30.0% says it is sometimes true **44.7%** says that mostly true and 18.3% says it is almost always true.

Hence majority of employees believe that the organizations future plans are made known to the managerial staff to help them develop their juniors and prepare them for future.

Q-64.Job- rotation facilities the advancement of employees.

Table:4.89. Job- rotation facilities the advancement of employees.

Q-64. Job- rotation facilities the advancement of employees.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all true	6	2.0	2.0	2.0
	Rarely true	15	5.0	5.0	7.0
	Sometimes true	100	33.3	33.3	40.3
	Mostly true	137	**45.7**	45.7	86.0
	Almost always true	42	14.0	14.0	100.0
	Total	300	100.0	100.0	

(Source Primary Data)

Table: 4.90. Job- rotation facilities the advancement of employees.

Mean	**3.65**
Standard Deviation	0.855
Skewness	-0.512
Kurtosis	0.580
COV+(Standard Deviation/Mean)*100	**23.424**

(Source Primary Data.)

Graph:4.64. Job- rotation facilities the advancement of employees.
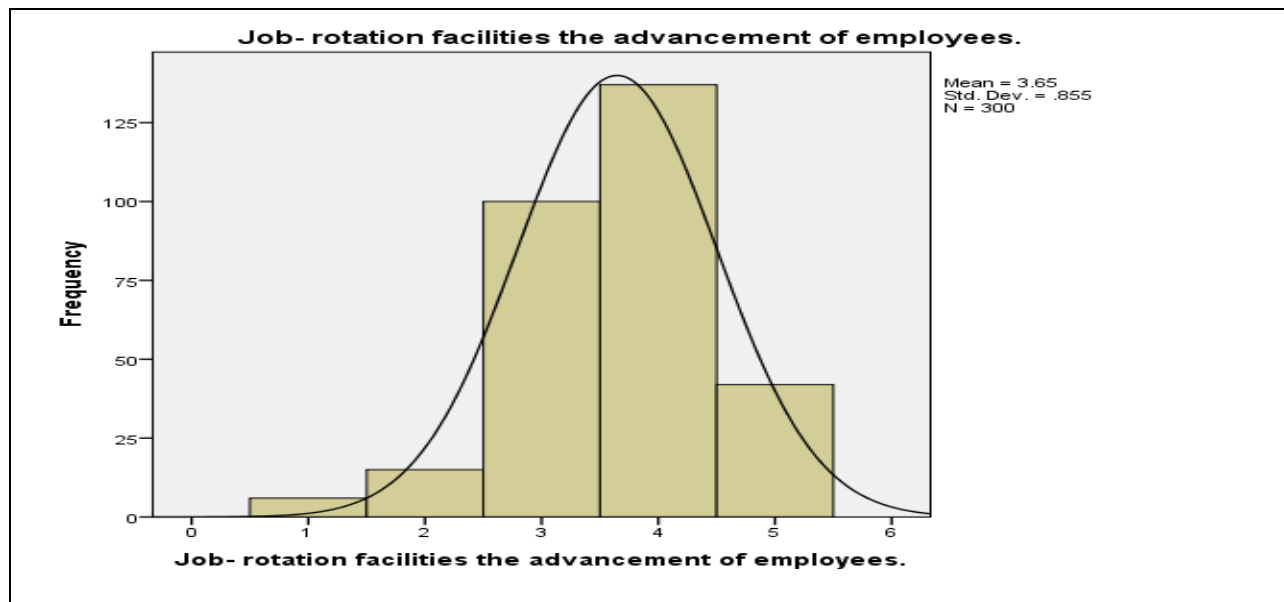
(Source Primary Data.)

Mean= 3.65, COV= 23.424 %

COV is less than 33%. This indicates that there is less disparity in the data set.

Hence the mean value can well represented the sample data and is a meaningful value.

Skewness is negative value (-0.512) the negative value of skewness indicates that the curve is left skewness and most of the data for their variables are concentrating on the right of the graph. The positive value of kurtosis indicates that the curve is short and spread.

From the skewness and kurtosis value it can be further interpreted that the mean value is a good representation of the sample data under study.

Hence majority of employees believes that the Job- rotation in this organisation facilitates employee development is mostly true.

*Interpretation***:-**

From the frequency distribution table, it can be seen that 2.0 % employees says that it is not at all true that the Job- rotation in this organization facilitates employee development**,** 5.0 % says it is that rarely true, 33.3% says it is sometimes true **45.7%** says that mostly true. 14.0% says it is almost always true.

Hence it can be concluded that employees of chemical industries moderately agree that the Job- rotation in this organization facilitates employee development

Table : 4.91. Hypothesis Table

Sr. No	Hypothesis	Question Nos. From – to
1	H1"Existing Human Resource Management Practices of Chemical Industries in Navi Mumbai are healthy (adequate)"	Q-42 to 64 = 23 (5 Points scale) Binomial test
2	H2"Employees retention is a result of Healthy Human Resource Management Practices in Chemical Industries in Navi Mumbai."	Q-24 to Q-41= 18 (Good, Bad / Yes, No) Chi Square Test Cross tabulation
3	H3"Employee productivity is a result of Healthy Human Resources Management Practices in Chemical Industries in Navi Mumbai."	Q-01 to Q-23= 23 General Questions Chi square Test Cross tabulation

(Source: Primary Data)

4.6. Conclusion

The collected data is evaluated and deciphered with the help of tables and graphs as presented above. The classification of questions is useful in order to prove Hypothesis, which is as follows. The findings of the study and validation of the hypotheses on the basis of facts obtained from the analyses is presented in the next chapter.

Chapter 5

Findings, Conclusion, and Recommendations

5.1. Introduction

5.2. Findings

5.3. Conclusion.

5.3.1 Factor Analysis.

5.3.2 Hypotheses Testing

5.4. Suggestions and Recommendations.

5.4.1 Suggestions to HR Manager and Management of the Organization.

5.4.2 Suggestions to Government.

5.4.3. Suggestions to Employees.

5.1. Introduction

The collected data was evaluated and the same is presented in the earlier chapter, The facts obtained from the analysis are presented in the chapter and hypotheses are tested on the basis of these facts for its validity. Recommendations are also furnished to different stakeholders.

5.2 Findings.

Findings of the study

I. Finding in respect of Human Resource Management practices in Chemical Industries in Navi Mumbai

1. Recruitment and Selection

a) It has been observed that company utilizes both internal and external sources of manpower supplies. 64.7% of the respondents had confirmed this fact. (Ref. Page No-123)

b) 30% of the respondents have confirmed that company promotes its existing employees to fill in the vacancies. (Ref. Page No-124)

c) It has been noticed that organization give preference for campus recruitment as external source of the manpower supply 25% of the respondent had confirmed this fact.(Ref. Page No-126)

d) It had been observed that 40% of respondents have confirmed that organisation gives preference to candidates from internal source while selecting the manpower. (Ref. Page No-127)

e) It had been observed that 51.67% respondents have confirmed that organisation does follow uniform probation period for its employees. (Ref. Page No-128)

f) It had been observed that organisation provides regular appointment if performance of trainee is satisfactory during probation period, confirmed this fact. (Ref. Page No-129)

g) According to 41. 3% respondents' Differential placement method is most commonly used method of placement in chemical industries of Navi Mumbai. (Ref. Page No-132)

2. Training and Development.

a) It had been observed that organisation provides induction training to its employees 54.3% respondents have confirmed provision of induction training by employer. (Ref. Page No-133)

b) Effort was made to identify how organization provides training to its employees to enable them to discharge new responsibility. 31.7 % respondents said that organisation provides in – house training to its executives to make them ready to accept future responsibilities. (Ref. Page No-134)

c) It had been observed that respondents have given preference to training that is essential if the job or responsibility is changed. (Ref. Page No-136)

d) It had been observed that majority of respondents have given preference to "On the job training" to cope up with new technological changes in the organization. (Ref. Page No-137)

e) 63.3% of respondents have confirmed existence of separate training department to provide training to the employees in the organisation. (Ref. Page No-151)

f) Majority of respondents have confirmed that organization encourages employees by sponsoring for higher educational program, arranging training programmers, guidance through professionals. (Ref. Page No-152)

g) Majority of the respondents believes that personnel policies in the organisation facilitate employee's development. (Ref. Page No-182)

h) Majority of the respondents confirm that senior officers / executive's in their organisation take active interests in the development of subordinates. (Ref. Page No-184)

i) Majority of respondents had confirmed that employees in the organisation take efforts to find out their strengths and weaknesses from their supervising officers or colleagues. (Ref. Page No-200)

j) Majority of respondents had moderately agreed that when employees are sponsored for training they take it seriously and try to learn from it. (Ref. Page No-202)

k) According to majority of respondents employer sponsors training programs on the basis of genuine training needs.   (Ref. Page No-204)

l) It was observed that senior officers pointed out career opportunities to juniors to help them in career advancement. (Ref. Page No-218)

m) Majority of respondents had confirmed that managerial staff is aware of future plans of the organisation and accordingly they nurture / develop their subordinates.(Ref. Page No-220)

3. Performance Evaluation / appraisal.

a) Majority of the respondents that is 31.33% confirmed that their immediate superior is responsible for initiation and execution of Performance appraisal system. (Ref. Page No-143)

b) It had been observed that 54.7% respondents belong to organisation which follows common performance appraisal system for all levels of officers in the organization. (Ref. Page No-145)

c) As per 39.3% respondent's organization follows confidential appraisal system for Performance appraisal. (Ref. Page No-146)

d) Performance Appraisal system is mainly used for job enrichment and salary decision (21% each) followed by promotions (20 %) Transfer (19.3%) and for other purpose. (Ref. Page No-148)

e) As per majority the organisation took action immediately on receipt (35%) of appraisal report, then at a time of promotion (34.7 %) and followed by at the time of increment (30.3%).(Ref. Page No-149)

f) It had been observed that majority of respondents confirmed that performance appraisal report plays major role in deciding training needs.(Ref. Page No-154)

g) According majority of the respondents when organisation provides behavioral feedback to the employees they take it seriously and use it for their development. (Ref. Page No-198)

4. Employees Communication.

a) It had been observed that 62.3% respondents have confirmed existence of human resource information system in the organisation.(Ref. Page No-139)

b) It had been observed that 44.7% confirm that the information is updated continuously in the organisation. (Ref. Page No-140)

c) It had been observed that 39.3% respondents confirm use of Human Resource Information System for deciding consideration of special project followed by increment (32.3%) and to decide training (23.3%) requirement.(Ref. Page No-142)

d) It had been observed that 69% of the respondents had confirmed that a Notice Board is installed in the premises of the organisation providing information to the employees and same is used by the employees to obtain the information.(Ref. Page No-167)

e) It had been observed that majority of respondents have stated that they are informed about injuries by the organization.(Ref. Page No-171)

f) Majority of respondents had agreed that their mistakes and weaknesses are communicated to them in non-threatening manner. (Ref. Page No-196)

g) It had been observed that employees in the chemical industries in Navi Mumbai try to solve problems by discussing it openly with collective efforts rather than accusing each other behind the back.(Ref. Page No-216)

h) It had been observed that respondents confirmed that company provides information of specific procedures to be carried out on the chemical outlets to avoid hazards that can be caused by the same. (Ref. Page No-166)

5. Grievance Redressal

a) As per 64.67% respondents Grievance Redressal do exist in their organisation. (Ref. Page No-157)

b) 79.7% respondents confirm that composition of Grievance redressal cell / Committee includes employees. (Ref. Page No-158)

c) It had been observed that 67.75 respondents are satisfied with the decision of the grievance redressal committee. (Ref. Page No-159)

6. Working Conditions.

a) 58.0 % respondents had confirmed that permanent equipment are supplied by the organisation.(Ref. Page No-168)

b) Majority of the respondents (72.7%) are not satisfied with the equipment provided to them by the organisation. (Ref. Page No-169)

c) 72.3% respondents had confirmed that internal facilities are provided by the organisation. (Ref. Page No-170)

d) It had been observed that majority of respondents have stated that organisation provides internal medical examination facilities.(Ref. Page No-172)

e) 42.3% respondents had agreed that advancement of subordinate is an organic part of manager's job. (Ref. Page No-179)

f) Majority of respondents had confirmed that delegation of higher responsibilities by superior is a common practice in the chemical Industries of Navi Mumbai.(Ref. Page No-212)

g) According to respondents job rotation policies adopted by the organisation helps them in advancement of their knowledge and enable them in career advancement. (Ref. Page No-222)

7. Retirement Benefits.

a) It had been observed that 67.0 % respondents have confirmed availability of retirement benefits in their organisation. (Ref. Page No-162)

II. Findings in respect of the awareness in Chemical Industries about Human Resources Management Practices.

a) It had been observed that 58.3% of the respondents confirm that the company is able to retain its employee in last three years.(Ref. Page No-173)

b) It has been observed that the chemical industries in Navi Mumbai have healthy Human Resources Management Practices as 66.77% respondents confirm this fact. (Ref. Page No-174)

c). It had been observed that 55.0% respondents in the chemical industries in Navi Mumbai have confirmed that the productivity of employees and the organizations had increased in the last three years.(Ref. Page No-176)

d) Majority of respondents (37.7%) believes that sometimes top management treats Human Resource as significant and should be treated on Human ground. (Ref. Page No-177)

e) Majority of the respondents had confirmed that senior employees in the organisation trained junior employees to prepare them for future responsibilities. (Ref. Page No-188)

f) According to majority the responsibility top management of the organisation takes efforts to identify potential of its employees and nurture their potential'. (Ref. Page No-190)

g) Majority of employees confirmed that their supervising authority appreciates their efforts and good work done by them. (Ref. Page No-192)

h) Majority of respondents had confirmed that people in their organization trust each other. (Ref. Page No-206)

III. Finding in respect of constraints of related to Human Resource Management Practices in chemical industries in Navi Mumbai.

a) Majority of respondents believes that employees in their organisation do not have any fixed mental impression about each other in the other words there is no bias. (Ref. Page No-194)

b) Majority of respondents had confirmed that employees are not afraid to express or to share their feelings and opinions with their supervisors. (Ref. Page No-208)

c) Majority of respondents had confirmed that authority express or discuss their views with their subordinates. (Ref. Page No-210)

IV. Other Findings.

a) Majority of respondents have stated their preference for sponsors for higher education programmes. (Ref. Page No-155)

b) As per 52.3% respondents confirmed that their organisation did not receive any special award for the same. (Ref. Page No-164)

c) It had been observed that respondents are aware in respect of environmental issues and they are actively taking care of the same. (Ref. Page No-165)

d) Respondents confirmed that people in their organisation are helpful to each other (Ref. Page No-186)

e) It was agreed that team spirit among the employees of chemical industries is at higher level. (Ref. Page No-214)

5.3. Conclusion

Based on above findings hypotheses of the study are tested for its validation it is presented below

5.3.1 Factor Analysis

Factor analysis is a data reduction technique. It is use to reduce a set of variables into a few manageable factors. In the current study 20 variables have been used to measure Human Resource Management practices in chemical industries of Navi Mumbai.

Factor analysis was performed to know if the 20 variables show overlap and can be combined into a few manageable factors.

Table: 5.1. KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.542
Bartlett's Test of Sphericity	Approx. Chi-Square	360.770
	Df	190
	Sig.	.000

Bartlett's test is testing a null hypothesis that variables are unrelated.

Bartlett test is significance (P<0.05), hence the Nulls rejected and it is concluded that relationship exit between variables.

The KMO value is more than 0.5 indicting that relationship between variables is adequate for a stable factor solution.

Table: 5.2: Total variance Explained.

Total Variance Explained					
	Initial Eigen values			Extraction Sums of Squared Loadings	
Component	Total	% of Variance	Cumulative %	Total	% of Variance
1	1.957	9.787	9.787	1.957	9.787
2	1.584	7.919	17.707	1.584	7.919
3	1.392	6.962	24.669	1.392	6.962
4	1.323	6.615	31.283	1.323	6.615

5	1.276	6.378	37.661	1.276	6.378
6	1.205	6.027	43.688	1.205	6.027
7	1.115	5.575	49.263	1.115	5.575
8	1.033	5.163	54.426	1.033	5.163
9	.981	4.907	59.333		
10	.957	4.783	64.116		
11	.901	4.504	68.620		
12	.887	4.434	73.054		
13	.882	4.410	77.464		
14	.769	3.847	81.311		
15	.718	3.592	84.903		
16	.689	3.443	88.346		
17	.632	3.158	91.504		
18	.610	3.049	94.553		
19	.573	2.865	97.418		
20	.516	2.582	100.000		

To know the number of factor extracted 'Eigen value more than one' method was used.

From that total variance table it can be seen that ten factor have Eigen values more than one, hence suggesting a ten-factor solution.

In order to know which variables have loaded on to which factor 'rotated component matrix' is taken into consideration.

Rotation was performed using Varimax techniques. Varimax is an orthogonal rotation.

A) From the rotated components matrix table, it can be seen that 'Peoples trust each other in this organization', 'People in this organization do not have any fixed mental impressions about each other', 'Team spirit is of higher order in this organization', 'employees are not afraid to express or discuss their feelings with their subordinates' and 'Weaknesses of employees are communicated to them in a non-threatening way' load on to factor one and have spirit of togetherness in common.

Hence this factor can be named as "**Encouraging Team Spirit".**

B) From the rotated components matrix table, it can be seen that , 'When problem arise people discuss these problems openly and try to solve them rather than keep accusing each other behind the back.', 'Employees are not afraid to express or discuss their feelings with their subordinates. 'Lead on to factor one and have spirit of togetherness in common.

Hence this factor can be named as "**Self Motivation".**

C) From the rotated components matrix table, it can be seen that, 'The organizations future plans are made known to the managerial staff to help them develop their juniors and prepare them for future.' 'Job- rotation in this organization facilitates employee development', 'Lead on to factor one and have spirit of togetherness in common.'

Hence this factor can be named as **"Future Oriented / Future planning."**

D) From the rotated components matrix table, it can be seen that, '.When employees are sponsored for training; they take it seriously and try to learn from the programmes they added.', 'Senior officers / Executives in this organization take active interest in their juniors and help them their job.' 'The personnel policies in this organization facilitate employee's development.' Lead on to factor one and have spirit of togetherness in common.

Hence this factor can be named as **"Organizational Activities/ Leadership Qualities."**

E) From the rotated components matrix table it can be seen that, '.The top management of this organization makes efforts to identify and utilize the potential of the employees', 'Employees in this organization take pains to find out their strengths and weakness from their supervising officers or colleagues' Lead on to factor one and have spirit of togetherness in common.

Hence this factor can be named as **"Progressive Activities".**

F) From the rotated components matrix table it can be seen that, 'Peoples in this organization are helpful to each other'; 'Employees are sponsors for training programmes on the basis of genuine training needs. 'lead on to factor one and have spirit of togetherness in common.

Hence this factor can be named as **"Cooperativeness / Unity Strength**".

G) From the rotated components matrix table it can be seen that, 'When behavior feedback is given to employees they take it seriously and use it for development.'; 'Development of subordinate is seen as an important part of their job by the managers / officers here.' Lead on to factor one and have spirit of togetherness in common.

Hence this factor can be named as **"Challenges to Progressive activities".**

H) From the rotated components matrix table it can be seen that, 'The top management believes that Human Resources are an extremely important resource and that they have to be treated more humanly', 'When employee's does good work his supervising officers take special care to appreciate it. 'lead on to factor one and have spirit of togetherness in common.
Hence this factor can be named as "Concentration **on Employees to develop each other employees".**

Hence factor analysis has successfully reduced, 64 variables into 8 manageable factors Encouraging Team spirit, Self Motivation, Future Oriented/Future Planning, Organizational Activities, Leadership Qualities, Progressive Activities, Cooperativeness / Unity Strength, Challenges to Progressive activities and Concentration on Employees to Develop each other employees in Human Resource Management practices in the organizations.

5.3.2 Hypothesis Testing.

Considering above findings and factor analysis following hypotheses are tested for its validity

Hypotheses

1. **H1:"Existing Human Resource Management Practices of Chemical Industries in Navi Mumbai are healthy (adequate)."**

2. **H2: "Employees retention is a result of Healthy Human Resource Management Practices in Chemical Industries in Navi Mumbai"**

3. **H3: "Employee productivity is a result of healthy HRMP in Chemical Industries in Navi Mumbai."**

1.“Existing Human Resource Management Practices of Chemical Industries in Navi Mumbai are healthy (adequate).”

Statistical Test: Binomial Test.

Variables and Measurement

Employees of Chemical Industries were asked to comment on the following statement related to the above a five point scale (5= Very healthy, 1= Less / Moderately healthy)

a. Encouraging Team spirit.
b. Self Motivation.
c. Future Oriented/Future Planning.
d. Organizational Activities, Leadership Qualities.
e. Progressive Activities.
f. Cooperativeness / Unity Strength.
g. Challenges to Progressive activities.
h. Concentration on Employees.

Cut point: the original 5 point scale was converted to 2- point scale using CUT POINT option as "3" in IMBSPSS 21.Hence the newly created categories were

< = 3: Not adequate.

> 3: adequate.

Test Proportion: Test proportion was taken as 0.5. Since more than 50% of favorable responses to a particular category suggest greater approval for this category. **Hence P = 0.5**

H0: P ≤ 0.5 (proportion of responses indicating "Existing Human Resource Management Practices of Chemical Industries in Navi Mumbai are healthy (adequate).", less than or equal to 50%)

H1: **P**> 0.5 (proportion of responses indicating "Existing Human Resource Management Practices of Chemical Industries in Navi Mumbai are healthy (adequate)." is more than 50%)

Levels of significance <= 0.05

Table: 5.3: Binomial Test.

Binomial Test		Category	N	Observed Prop.	Test Prop.
Encouraging Team spirit	Group 1	<= 3	151	.50	.50
	Group 2	> 3	149	.50	
	Total		300	1.00	
Self Motivation	Group 1	<= 3	64	.21	.50
	Group 2	> 3	236	.79	
	Total		300	1.00	
Future Oriented future Planning	Group 1	<= 3	69	.23	.50
	Group 2	> 3	231	.77	
	Total		300	1.00	
Leadership Qualities	Group 1	<= 3	69	.23	.50
	Group 2	> 3	231	.77	
	Total		300	1.00	
Progressive Activities	Group 1	<= 3	73	.24	.50
	Group 2	> 3	227	.76	
	Total		300	1.00	
Cooperativeness	Group 1	<= 3	163	.54	.50
	Group 2	> 3	137	.46	
	Total		300	1.00	
Challenges To Progressive Activities	Group 1	<= 3	113	.38	.50
	Group 2	> 3	187	.62	
	Total		300	1.00	
Concentration On Employees To Develop all Employees	Group 1	<= 3	149	.50	.50
	Group 2	> 3	151	.50	
	Total		300	1.00	

(Contd…)

(*Source: Primary Data*)

Table: 5.4: Binomial Test.

Binomial Test		Exact Sig. (2-tailed)
Encouraging Team spirit	Group 1	.954
	Group 2	
	Total	
Self Motivation	Group 1	.000
	Group 2	
	Total	
Future Oriented future Planning	Group 1	.000
	Group 2	
	Total	
Leadership Qualities	Group 1	.000
	Group 2	
	Total	
Progressive Activities	Group 1	.000
	Group 2	
	Total	
Cooperativeness	Group 1	.149
	Group 2	
	Total	
Challenges To Progressive Activities	Group 1	.000
	Group 2	
	Total	
Concentration On Employees To Develop all Employees	Group 1	0.954
	Group 2	
	Total	

(*Source: Primary Data*)

Interpretation:

a) Encouraging team spirit

Observed proportion: 0.5 Test proportion: 0.5, P = 0.954

Hence only 50% of the respondents agree that there is team spirit in change employee of the organization

b) Self-Motivation

Observed Proportion: 0.79 test proportion 0.5, P= 0.000

Hence more than 50% of the respondents agree that employees of the organization self-motivated.

c) Future Oriented / Future Planning

Observed Proportion.0.77 Test proportion 0.5, P= 0.000

Hence more than 50% of the respondent agrees that employees of the organisation are future Oriented.

d) Leadership Qualities

Observed Proportion.0.77 Test proportion 0.5, P= 0.000

Hence more than 50% of the respondent agrees employees of the organization have leadership qualities.

e) Progressive activities.

Observed Proportion.0.76 Test proportion 0.5, P= 0.000

Hence more than 50% of the respondent agrees that employees of the organisation are found in progressive activities.

f) Cooperativeness

Observed Proportion.0.46 Test proportion 0.5, P= 0.149

Hence less than 50% of the respondents agree employees of the organization are not found Cooperativeness.

g) Challenges to progressive activities

Observed Proporation.0.62 Test proportion 0.5, P= 0.000

Hence more than 50% of the respondent agrees those employees of the organization are found challenges to progressive activities.

h) Concentration on employees to develop all employees.

Observed proportion: 0.5 Test proportion: 0.5, P = 0.954

Hence only 50% of the respondents agree that there is Concentration on employees to develop all employees in change employee of the organization

Out of 8 variables, 5 variables have observed proportion more than 0.50 and P value less than 0.05, hence the hypothesis, 'Human Resource Management Practices in Chemical Industries are healthy (adequate) is proved'.

2.H2: "Employees retention is a result of Healthy Human Resource Management Practices in Chemical Industries in Navi Mumbai"

Statistical Test: Chi square test

Variables and Measurement:

Employee retention is categorical variables measured using two response option, (1= bad, 2= good)

Human resource Management Practices is also a categorical variable with two response options (1= moderately healthy, 2= very healthy)

Levels of Significance: α = 0.05.

H0: Employee retention is independent of healthy HRM Practices.

H1 : Employee retention depends upon Healthy HRMP.

Since the Chi Square Test is significance (P < 0.05) the NULL hypothesis is rejected, hence it is concluded that Employees retention depend upon Healthy Human Resource Management Practices.

Table: 5.5: Chi-Square Test

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	68.571[a]	1	.000		
Continuity Correction	66.530	1	.000		
Likelihood Ratio	70.115	1	.000		
Fisher's Exact Test				.000	.000
N of Valid Cases	300				

(*Source: Primary Data*)

Table: 5.6: Employees Retention HRM Practices Cross Tabulation.

Employee Retention * HRM Practices Cross tabulation					
			HRM Practices		
			moderately / Less healthy	Very healthy	Total
Employee Retention	bad	Count	75	50	125
		% within Employee Retention	60.0%	40.0%	100.0%
	good	Count	25	150	175
		% within Employee Retention	14.3%	85.7%	100.0%
Total		Count	100	200	300
		% within Employee Retention	33.3%	66.7%	100.0%

(*Source: Primary Data*)

From the cross tabulation table it can be affirmed that out of the 175 respondents who said that retention is good 85.7%   agreed that HRMP are very healthy and out of the 125 employees who said employee's retention is bad, 60% agreed that HRMP are moderately healthy.

Hence it can be concluded that employee retention is result of healthy Human Resource Management Practices.

3. H3: "Employee productivity is a result of healthy Human Resource Management Practices in Chemical Industries in Navi Mumbai."

Statistical test: - Chi square test.

Variable and Measurement:

Employee productivity is categorical variable measured using two response options (1=bad 2= Good).

Human Resource management Practices is also categorical variable with two response options (1= moderately/ Less healthy, 2= Very healthy)

H0 : Employee productivity is independent of healthy Human Resource Management Practices.

H1: Employee productivity depends upon healthy Human Resource Management Practices.

Table: 5.7. Employee Productivity HRM Practices Cross tabulation

			HRM Practices		
			Moderately / Less healthy	Very healthy	Total
Employee Productivity	bad	Count	80	55	135
		% within Employee Productivity	59.3%	40.7%	100.0%
	good	Count	20	145	165
		% within Employee Productivity	12.1%	87.9%	100.0%
Total		Count	100	200	300
		% within Employee Productivity	33.3%	66.7%	100.0%

(Source: Primary Data)

Table :5.8. Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	74.242[a]	1	.000		
Continuity Correction	72.136	1	.000		
Likelihood Ratio	77.535	1	.000		
Fisher's Exact Test				.000	.000
N of Valid Cases	300				

(Source: Primary Data)

From the cross table, it can be seen that out of 165 respondents who said that Employees productivity is good, 87.9% agreed that Human Resource Management Practices are very healthy and out of 135 employees who said that Employees productivity is Bad, 59.3% agreed that Human resource Management Practices are Moderately healthy.

Hence it can be concluded that employee productivity is a result of healthy Human Resource management Practices.

5.4. Research Problem:

Literature review enable to identify gaps and also to frame research problem for the study, the research problem of the study is whether Human Resource Practices adopted in chemical industries in Navi Mumbai are adequate?

5.5. Suggestions& Recommendations:

5.5.1 Suggestions to HR Manager and Management of the organization

1. **Promotions:** It is observed that very less number of employees are promoted to higher positions, HR Manager and Management should give more opportunities to their existing employees by considering them for promotions.(Ref. Page No-155,218)

2. **Campus Recruitment:** It is observed that organization focuses on Campus Recruitment for manpower supply. It negatively affects the company as it loses opportunity to get skilled workers. Company should apply scientific method for recruitment and selection. (Ref. Page No-123 to 129)

3. **Development of Employees:** It had been observed that only 42% superiors delegate responsibilities to their subordinates, the organization should bear in mind that there is always a need for second line of human resources.(Ref. Page No-188,212)

4. **Job Rotation:** It is observed that proper job rotation policies need to be adopted for development of different skill sets of the employees.(Ref. Page No- 222)

5. **Performance Appraisal:** Companies need to adopt scientific performance appraisal methods for appraisal of its employees.(Ref. Page No-145,146)

6. **Performance based remuneration:** It is observed that employees of the Companies need performance based remuneration than current increment system.(Ref. Page No- 148)

7. **Immediate Penal Action should be avoided:** It is observed that penal action is taken against employees immediately; it is advised that companies should be more liberal while taking penal action against employees.(Ref. P- No- 149)

8. **Retirement Benefits:** The management should come up with better retirement benefits to the employees of the organization.(Ref. page No-162)

9. **Social Activities: The** Management of the organization should plan and execute social activities for its employees, and for surrounding area. .(Ref. page No-164)

10. **Training:** The organizations should focus more on training of the employees. It is observed that only 53% organization give preference for induction training.(Ref.P-202,204)

5.5.2 Suggestions to Government

1. **Implementation of Labour Laws:** Government should effectively implement and supervise compliance of labour law regulations in respect of grievance redressal for chemical industries in Navi Mumbai.

2. **Supervision of Laws related to Payment of remuneration:** Government should strictly implement laws related to payment remuneration.

3. **Laws related to Women Employees:** Government should supervise and ensure effective implementation of labour laws specifically related to women employees.

4: **Safety and Security:** Government must ensure adherence of laws related to safety and security of employees and environment.

5. **Insurance Coverage and Medical Facilities:** Government should ensure family insurance cover should be provided to all employees along with medical facilities by the employer.

6. **Education Benefits:** Government should enact law in respect of granting scholarship to the bright students of employees.

7. **Human Resource Accounting:** Implementation of Human Resource Accounting in all Chemical Industries of Navi Mumbai

5.5.3. Suggestions to Employees

1. **Communication:** Employees must take active participation in communication process, employees must be aware about notices, circulars etc. displayed on Notice Board.(Ref. Page No-206,208)

2. **Training: Employees** must emphasis on training before placement.(Ref. Page No-151)

3. **Mutual Trust:** Employees must develop mutual trust among each other and try to solve problems by discussing it with each other and appropriate authority.(Ref. Page No-216)

4. **Participation in Management:** Employees are advised to increase their active participation in Management of organization

5. **Awareness:** Employees specifically women employees are advised to study and obtain knowledge in respect of various labour laws, employee benefit schemes and other rules.(Ref. Page No- 167)

6. BIBLIOGRAPHY.

6.1. References:

6.2. Journals and Periodical.

6.3.Articles.

6.4.   Websites:

6.1. References:

1. AgarwalaTanuja., **Human Resource Management: The Emerging Trends**", Indian Journal 'Industrial Relations, Vo1.37, No.3, 2002.

2. AnuradhaSharama, "**Management and Job Performance**" (1986)   New Delhi Gain Publication House.

3. Apparao P. B. **"Personnel management in Small scale Industries"** (1988), Deep and Deep Publication house New Delhi.

4. Armstrong, Michael, **A Hand book Of Human Resource Management**, (8th Edition), (2001), Printed and Bounded in Great Britain by The Bath Press, Bath, Great Briton.

5. Aswathappa K., Reddy Sudarsana. G**.,Business Environment for Strategic Management,** Second Revised and Enlarged Edition, 2011, ISBN- 978-93-5051-104-6, Himalaya Publishing House.

6. Aswathappa, K. **Human Resource management**, (Text and Cases) (2011), Tata McGraw-Hill Publishing Company Limited, New Delhi.

7. Aswathappa, K., **Essentials of Production Management**, Himalaya Publishing House, Mumbai. 1998, ISBN- 81-7493-587-8.

8. Bedi R.V. , and Hundekar S.G**, "International Human Resource Management"**, (2009) Vrinda Publication Pvt.Ltd, New Delhi

9. Bhagolivala, T.N**. " Personnel management and Industrial relation"** (1999), Sahitya Bhavan Publication , Agra.

10. BholanathDutta, **HRM Review, Employment and Employability**, ICFAI University Press 2009, Pg. 17.

11. Blum, M.L., **Industrial Psychology and its Social foundations**" (1966) Harper International Publications, New York.

12. Burnett, **Promotion Management**, (1999) AITBS, Publisher and Distributor (Regd.) Delhi-51.

13. Burton Gene, Thakur Manab, (1998) **Management Today, Introduction to management** (Tata McGraw- Hill Publishing Company Limited, New Delhi.) ISBN No- 0-07-463110-1.

14. C.B.Mamoria and S.V.Gankar**, Personnel management** (text and Cases) **(2008)** Himalaya Publishing House, Pune,1.

15. Choudhari, K. ,." **Change in Organization",** (1980) Lavani Publication House, Mumbai.

16. Dale Yoder**, "Personnel Management and Industrial Relations**",(1988) Prentice Hall of India Publication, New Delhi,

17. Dale, Earnest, **Management: Theory and Practices, 1978, International Student Edition, McGrawHill International Book Company.**

18. Davar R.S., **Personal management and Industrial Relations, (Reprint 2011)** Vikas Publishing house Pvt Ltd, Tenth Revised Edition.

19. Davar, R.S**., Personnel Management and Industrial Relations, 1988, Vikas Publishing House Pvt. Ltd, New Delhi.**

20. Davar, Rustom, S., **Personnel Management and Industrial Relations,** (10th edition) 1976, Vikas Publishing House Pvt. Ltd, New Delhi.

21. David A. Decenzo**, Stephen P. Robbins Fundamentals of Human Resource management** (8th Edition) John Wiley India, New Delhi 110002.

22. Deshpande A.S., **Principles of Management and Personnel Management,** Third Edition**,** 1987, Vora and Sons Publishers Private Limited Bombay-02.

23. Dipak Kumar Bhattacharya, **Human Resource planning** (2nd Edition) Excel Books, New Delhi 110028.

24. Donald R Cooper, Pameela S. Sachindlar, "Business Research Methods", (1998) Tata Mc Grew Publications Company Ltd. New Delhi.

25. Dr. Aswathappa**, K**, **Production management**, (1998), Himalaya Publishing House, Pune.

26. Dr. BediRavindranath, **Human Resource Management** (Text and Cases) (2011) Himalaya Publishing House, Mumbai 400004.

27. Dr. Murugan, M. Sakthivel, **Management Principles and Practices**, (2016), New age International Publications, New Delhi.

28. Dr. Shajahan, S. **Research Methodology,** (text and cases)(2006), Jaico Publishing House Mumbai.

29. Dr. Vaisishth, Neeru, Taxmann**, Students Guide to Management**, Second Edition, July 2003, Management: Concepts and Naturem- 15.

30. Drucker P.F.: "**The Practice of Management**,". (1984) London, Heinemann, Publication.

31. Drucker Peter**F.: The practice of management**, (1990) New Delhi: Allied publishers Pvt. Ltd.

32. DubrinAndrew**, JLeadership,**(Research Findings , Practice, and Skills) 5th Edition (2008), Biztantra, Management for the flat world, Delhi-02.

33. Dwivedi. R.S, **Manpower management**, 1984, Prentice-Hall of India, Pvt., Ltd., New Delhi., ISBN 0-87692-047-4.

34. Dwivedi R.S**., Management of Human Resources**, (2000) Oxford & IBH Publishing Co., New Delhi.

35. FlippoE.B.: "**Principles of Personnel Management**;"(1976) (Fourth Ed), McGraw Hill, KogakushaLtd.,Tokyo.

36. Flippo E.B.," **Principles of Personnel Management**", (1981) McGraw Hill Books Co, Singapore.

37. Gary Dessler**, "Human Resource Management**" – 10 Edition, ,(2006) Florida International University. Prentice, Hall of India Pvt. Ltd., New Delhi – 110 001.

38. **Goel, S.L.,Modern Management Techniques**, (1995), deep and Deep publication, New Delhi-27.

39. Gupta, C.B. **Human Resource management**, (2010), Sultan Chand & Sons, Educational Publishers, New Delhi, ISBN No- 978-81-8054-857-4.

40. Hannagan Tim, **Management-Concepts & Practices**, (1995), Macmillan India Ltd, SBN No 0333 93081-9.

41. Harrel T.W., "Industrial Psychology" (1997) Oxford& IBH Publishing Co, New Delhi.**HeinzWeihrich, Harold Koontz,** (2006) **Management – A global Perspective**, (11th Edition) (Tata McGraw- Hill Publishing Company Limited, New Delhi.).

42. Ian Beardwell& Len MaCmillan Human Resource **Management, A contemporary Perspective –** Indian book's publication Ltd., New Delhi 110002.

43. ICFAI Center for Management Research, Introduction to **Human Resource Management, Managing Careers,** Hyderabad, India, ISBN 81-7881-978-3, 2004.

44. John W. Newstrom and Keith Davis. 11th Edition, Stress and Counseling: **Organizational Behavior, T**ata McGraw-Hil, Delhi India, ISBN: 0-07-047264-5, 364-387.

45. Kerzner, Harold, **Project Management**, (A system approach to planning, Scheduling and controlling) (2002) CBS, Publisher and Distributor New Delhi-02, **International Publishers New Delhi, ISBN:81-224-1506-7.**

46. Khanka S.S., **"Human resource Management"** (text and cases) (2009) S. Chand and Company Limited, New Delhi2009, Chapter 13 Internal mobility and Separation.

47. Khanka S.S., **Human Resource management**, (2011), S Chand & Company Ltd, New Delhi- 55, ISBN No- 81-219-2300-X.

48. Khanzode V. V: "**Human Resource Management**" (1998): Ashish Publishing House, New Delhi.

49. Kirk Patrick, D.L., **Evaluating of Training and Development Handbook, (1987)** McGraw-Hill, New York,

50. Koontz O Dennell**, Weihrich**, **Essentials Of Management**, Fourth Edition, Mc Grew Hill, International Editors, New Delhi.

51. Kothari,C.R.,(2008) **Research Methodology** ,Methods and Techniques, ,New age international publishers, New Delhi 110002.

52. Krishnaswamy, O.R**., "Human Resource Development**" (1987) Rainbow Publications, Coimbatore.

53. Kumar Ranjit, **Research Methodology**, 3rd edition, Sage Publication India Pvt. Ltd, New Delhi-44, (2012), ISBN- 978-81-321-0648-7(PB).

54. LatiffT.A.," Training for Management" (2003) Starling Publications, New Delhi.

55. Luis R. Gomez - mejia, David B. Balkin, Robert L. Cardy**, Managing Human Resources** (4th Edition) Pearson education, prentice Hall, New Delhi 110092.

56. McFarland, D.E., "**Principles of Management**." (1968) McGraw Hill Book Co, New York.

57. Mamoria C.B, Rao, V.S.**P. Personnel management**, (text and Cases) Himalaya Publishing House Pune, (2012), ISBN N0- 978-93-5051-468-9.

58. Managing Human Resources, **Personnel Management in Indian Enterprises** - R. S. Dwivedi, Galgotia Publishing Company, New Delhi 110005.

59. Mathis, K.I. and Jackson. J.H., "Personnel Management" (1988) Tata Mc Grew Hill < New Delhi.

60. Memoria, Memoria, Gankar**. Dynamic Industrial Relations**, (2011), Himalaya Publishing House, Mumbai, ISBN No- 978-81-8318-140-6.

61. Menon P.S.K. **A Comprehensive manual of Human Resource Management**, (2012), Himalaya Publishing House Pvt. Ltd., Mumbai-04., ISBN No- 978-93-5051-333-0.

62. Michael Armstrong**, Human Resource Management Practices,** 8th Edition, (2001) British Library cataloguing in publishing data, Great Britain be the Bath press, Bath USA.,ISBN-07494 3393 0.

63. Michael V.P.: "**Human Resource Management and Human Relation**" (2001): Himalaya Publishing House, Mumbai.

64. Michael, V.P**., Human Resource Management and Human Relations,** 2011**,** Himalaya Publishing House Pvt. Ltd, ISBN-978-93-5024-998-7.

65. MonappaArun: '**Managing Human Resource'**: McMillan India Ltd., New Delhi.

66. Moorthy M.V.: **"Human Resource Management**" -(Psycho-Sociological Approach) (1992): R&M Associates, Bangalore.

67. Morajkar,V.V,Kakade,M.D, Geet,S.D, Geet, A.S**, Human resource Management,** NiraliPrakashan, Pune, (1999).

68. Murugan M, Sakthivel**, Management Principles and Practices, 2004, New Age.** The author has focused in this reference book on management as a growing and developing discipline.

69. Noe, Hollenbeck, Gerhart, '**Human Resource Management'**, Irwin McGraw Hill, 4th Ed., 2003.

70. P.Jyothi, D.N.Venkatesh, (2006), **Human Resources Management**, Oxford University Press.

71. Pardeshi P.C**.,Human Resource Management**, (1999), NiraliPrakashan, Pune.

72. Penny Hackett.: '**Success in Management Personnel'** (1979): John MurryPublisshers Ltd., London.

73. Peter J. Dowling and Denice E. Welch (2004**). International Human Resource Management**.

74. Prasad Lallan, Gulshan.S.S., **Management Principles and Practice**, 1998, S. Chand & Company Ltd., Ram Nagar, Delhi-55, ISBN-81-219-0317-3.

75. Prasad, L. M., **Human Resource Management**, Sultan Chand & Sons, Educational Publishers, New Delhi. (2006). ISBN N0 978-81-8054-769-0.

76. Punekar, S.D, Deodhar, S.B, Sankaran, Sarswathi, **Labour Welfare, Trade Unionism and Industrial Relations,** (2012), Himalaya Publishing House, Nagpur, ISBN 978-93-5051-512-9.

77. Rao T.V., **Human Resources Development: Experiences, Interventions and Strategies, (1996)** Sage Publication, New Delhi.

78. Rao, SubbaP. **Personnel and Human Resource Management** (text & Cases), (2000) Himalaya Publishing House, Pune, Mumbai, ISBN- 81-7493-777-3.

79. Rao, Subba. P**., Essentials of Human Resource Management and Industrial Relations, Fifth Edition, 2012, Himalaya Publishing House, Mumbai, ISBN-978-93-5051-630-0.**

80. Rao, T.V., **HRD Audit: Evaluating the Human Resource Function for Business Improvement, (1999)** Response Books, New Delhi.

81. **Rao, V.S.P.Human Resource Management**, (Text and Cases)(2005), Excel Books , New Delhi, ISBN No- 81-7446-448-4.

82. Ravishankar S. and Mishra R.K.: "**Management of Human Resource in Public Enterprises"** (1985): Vision Book Pvt. Ltd., New Delhi.

83. Raymond Note, "**Human Resource Management –** 5th Edition, 2007 A Note and Others. Tata McGraw-Hill Publishing Company Ltd., New Delhi.

84. Robert A. Fazzal, **Management Plans**, 1994, IRWIN, Professional Publishing, Burr Ridge, Illinois, New York.

85. Sadri, Sadri Jayashree., **Human Resources Management in Modern India** (Concepts and Cases), 2013, Himalaya Publishing House Pvt, Ltd, ISBN-978-93-5097-099-7.

86. Sarma A.M., **Aspect of Labour Welfare and Social Security**, (2012), Himalaya Publishing House, Pune.

87. Sarma, A.M., **Aspects of Labour Welfare and Social Security,** 2000, Himalaya Publishing House.

88. Sarma, A.M**.,Industrial Relation**, (2012), Himalaya Publishing House, Mumbai, ISBN: 978-93-5024-674-0.

89. Sarma, A.M**.,Personnel and Human Resource Management**. Third revised edition, 2000, Himalaya Publishing House, ISBN- 81-7866-017-2.

90. Schuler R.S and Young B.: '**Effective Personnel Management'** (2001): Harper and Raw Publishers, Singapore.

91. SeemaSanghi, **Human Resource Management**, MaCmillan Publishers India Ltd., New Delhi 110002, 2011.

92. SenRatan, **Industrial Relations in India**, (Shifting Paradigms) (2003), Macmillan India Ltd, ISBN 1403 910294.

93. Sherlekar S. A.: Principles **of Management** – Himalaya Publishing House, Mumbai, 1984.

94. **Sherlekar S.A**. in his book Management (Value- Oriented Holistic Approach) 1977, Himalaya publishing, Pune.

95. Singh Nisha, **Human Resource Management**, (2012), Himalaya Publishing House, Mumbai. ISBN No- 978-93-5051-748-2.

96. Singh, Nirmal, **Human Resource Management**, (2012), Galgotia Publications Pvt. Ltd., New Delhi. ISBN- 81-7515-471-3.

97. Stoner James, Freeman R. Edward, Daniel Gilbert Jr. **Management (6th Edition) Prentice Hall of India Private Limited New Delhi-01 (2000).**

98. **Stoner, James. A, Faeeman, R. Edward, Daniel A. Gilbert**, Management, (2000), Prentice Hall of India Private Limited, New Delhi-01.

99. Towers Brain, "**Handbook of Human Resource Management"** (1998), Bean Books, New Delhi-63, ISBN- 81-86104-55-X.

100. **Tripathi. Personnel Management & Industrial Relations, (**1997), Sultan Chand & Sons Educational Publisher, New Delhi-2, ISBN No- 81-7014-181-8.

101. Varma, M.M**., Aggarawal, Personnel management and Industrial Relations**. 1987, Forward Book Depot, Educational Publisher Post Box-No- 1489.

102. Verma M.M. and Aggarwal: "**Personnel Management and Industrial Relations**" (1994): Forward Book Depot, Delhi.

103. Weihrich, Heinz, Koontz, Harold**,Management –A Global Perspective**, (2006) Tata McGraw-Hills Publications limited New Delhi. ISBN No- 0-07-059856-8.

6.2. Journals and Periodical.

1. **"The Hindu Speaks on Management**" - 'Learning and Organization', 29[th]April 1995.

2. **A Report on Global chemical industry merger and Acquisition Outlook Feb-2014.**

3. **Abdul Aziz, Management, Personnel Management**, Bibliography of Doctoral Dissertation. (1972-78).

4. Ameru, M.A and Bamiduro, J.A. (2007). **Impact Assessment of Employee Benefits in work motivation:** A path to higher productivity in India, Journal of the Faculty of Social and Management Science, Nigeria, December 2009.

5. Ann P. Bartel (2004), **Human Resource Management** and Organizational Performance, Evidence from Retail Banking, Industrial and Labour Relations Review, Cornell University, Vol 57(2).

6. Azim M. Tahlil, "Human resource Management" Indian Journals of Industrial Relations, (2000) Vol. No. 2.

7. **BASF** Report: 2012. Economic, Environment and Social Performance – BASF the Chemical Company.

8. BholanathDutta, HRM Review, Employment and Employability, ICFAI University Press 2009, Pg. 17.

9. **Chains Chemical Industry**: The new Forces driving Changes: Chemicals and performance Technologies – A New paradigm ahead? (2011)

10. Chattetji, S and Mukkerjee M, "Modern Objectives test and selections In Industries and training Course" LokUdyog Monthly publications. (May 1998) Vol.-5.

11. **Chemagility:** A Global perspective on the world chemical Distribution Market - First panel session: Chemical Distribution Industry Landscape Lisbon, May-22nd 2012.

12. **Chemical Industry Profile**: World Chemical Sale: Geographic Breakdown – 2007

13. **Chemical Industry Profile**: World Chemical Sales: Geographic breakdown - Facts and figures – 2011.

14. **Chemical Industry Vision 2010**: A European Perspective by At Kearney (2012).

15. **Christopher Daniel**, J., 'Realizing People Philosophy of Organizations', The Hindu speaks of Management, 12' July 1995, page - 199.

16. **Deenadayalan. K., "HRM past, present and future**", The Hindu speaks on Management, **4'** Oct. 1995, page .230.

17. Dhar B. Executive Appointment by promotions or Recruitment, Indian Management, Jan-Feb-1999.Vol-5.

18. **Facts and Figures** -2012. The European Chemicals industry in a Worldwide perspective (ECFIC) (2012)

19. **Facts Driving Change Industry**: The New Forces Diving Change: Chemical and Performance Technology – A new paradigm ahead? (2011)

20. **Global Chemical Outlook**: Towards Sound Management of Chemical – Tends and Changes- 2013.

21. **Global outlook**: The Chemical Industry of South Korea: Progress and Challenges American Institute of Chemical Engneers-2011.

22. Gopala Krishna, H.N., *Training and Development: A New Approach at BHEL,* **The Guest** D (2002). '**Human Resource Management**, Corporate Performance and Employee wellbeing: Building the worker into HRM'. The Journal of Industrial Relations 44:3 335-358.

23. Guest D.E (2001), **HRM, Research Confronts Theory,** International Journal of HRM, 12 (7) 1092-1106.

24. **HRD** Newsletter Vol. 24 Issue:10 , January, 2009 -- Crisis : Boon or Bane for Recruitment By Sunil Goel.

25. Human Resource Management Review, IUP Publications, EMPLOYEE RETENTION, April 2011.

26. **Human Resource Management review**, The ICFAI University Press, January 2009.

27. **Human Resource Management review**, The ICFAI University Press, Volume IX, Issue V, May-2009.

28. **Human Resource Management review**, The ICFAI University Press, Volume IX, Issue VI, June -2009.

29. **Human Resource Management review**, The ICFAI University Volume – IX, Issue –III, Press, March 2009.

30. **Human Resource Management reviews**, The ICFAI University Press, Volume IX, Issue – IV, April-2009.

31. **Increased value?** IBM Business Consulting Services –On Demand Business (2011),**Indian Journal of Training and Development,** Vol. XXXIII, No..l& 2, January-June 2003.

Indian Institute of Management, Ahmadabad.

32. **International federation report** - of Pharmaceutical manufacturers association – The Pharmaceutical and global health – Facts and figures 2014. (IFPMA)

33. J.S.Sodhi, (1998) **Human Resource Management and Industrial Relations in India:-** A case study of Oriental Bank of Commerce, Management and change Volume .2, No.2, July-Dec- 2000.

34. **Mathrubootham. A, "Residual to Human Resource Management**", The Hindu speaks on Management, 22" April 1995, pp. 177, 18 1.

35. **Mumbai Mirror**, Human Resource Management and India's Current production situation, page 8 date 2-Aug-2016.

36. **New Biocatalysts: Essential tools for a sustainable 21st** Century: Chemical Industry: - November – 1999.

37. **OECD- Environmental Outlook for Chemical Industry** – (2001) Organization for Economic Co-operation and Development (OECD)

38. Pandit Y.V.L., Talent Retention Strategies In a Competitive Environment, NHRD Journal, May 2007.

39. Pareek, Uday&Rao T.V., **Human Resource Development Systems in Larsen & Toubro,**

40. Rao T.V. (1999), HRD audit the HR function for Business Strategic Management Journal 13, 119-134.

41. **Reaction: Strategy realignment in the global Chemical Industry** – Chemical Magazine – 11th Edition by KPMG –Cutting through Complexity.

42. **Responsible Care: Global Character** – Global Chemical Report: 2002-2012.

43. **S. V. Kumar, A.B., "Developing Proactive Organizational Culture",** The Hindu Speaks on Management, 1" July 1995, p.67.

44. **Safety and Health in the Use Chemical at work** – World day for Safety and health and at work – 28th April 2014.

45. Sen, D., Jain, S., Jat, S. and Saha, R. (2008). Human Resource Accounting Information: Its Impact on Internal Decision-Making. The Journal of Accounting and Finance, 22(1), Oct-March.

46. **Shankar Ravi, Employee benefits in India, an Introduction**, Millennium White paper, New Delhi, April 2013.

47. Sivakumar, **A.B.,** "**HRD for Results: the new agenda**", The Hindu speaks on Management, 26' April 1995.

48. **The Chemical Industry in a Demand world:** Does your future hold volatility or increased value? IBM Business Consulting Services – On Demand Business (2012)

49. **The Economic benefit of Green Chemical Industry in the United States** –By Blue green Alliance May 2011.

50. **The Economic benefits of a Green chemical Industry in the United States** – By Blue green alliance. May-2011

51. **The Global Chemical Industry: Profile and Trends** – Global Outlook for Chemical and Waste Geneva, June 6, 2009.

52. Top 100 Chemical Companies Report.

53. **University News**, **Leadership to Guide the Density of India.** More Ankush. L. Feb-2012.

54. **University News: Monthly Commentary on Indian Economics** –Nov.2012. The Indian Institute of Public Opinion, - Government Goes for Major Policies Changes.

55. **University News: Recent Trends Challenges, and Opportunity**.Nov-2012 Vol-6.

56. **Varadhan, S.S., 'Achieving Performance advantage through people'**, The Hindu speaks on Management, 14' June 1995. p. 195.

57. **Waste Water Treatment in Chemical Industry** – The Concepts and Current Technology – Hydrology – Current Research 2014.

6.3. Articles.

1. **Balwinder Singh, 2. Dr. SeemaDhawan,** CMJ University, Shillong, Meghalaya, India, Challenges Faced by H R Managers in the Contemporary Business Atmosphere, IJMBS Vol. 3, Issue 2, April - June 2013, ISSN: 2230-9519 (Online) | ISSN: 2231-2463.

2. **Dr. Khaliq Ahmad, Director, Management Centre**, International Islamic University Malaysia, Challenges and Practices in Human Resource Management of the Muslim World, The Journal of Human Resource and Adult Learning Vol. 4, Num. 2, December 2008.

3. **Francis C. AnyimPh.D , Cyril OselokaIkemefuna and Samuel E. Mbah, FCIPM**, FNIM, FABS, FCAI; Department of Industrial Relations and Personnel Management, University of Lago. , Department of Industrial Relations and Personnel Management, Faculty of Business Administration, University of Lagos. Human Resource Management Challenges in Nigeria Under a Globalised Economy, International Journals of Economics and management   science Volume -1 No-4, -2011 PP 01-11.

4. Human resource management in Indian context in magazine International Journal of Research in Applied, Natural and Social Sciences ISSN: 2321-8851; ISSN(P): Vol. 2, Issue 2, Feb 2014, 135-142 authors M. Ravibabu&AshgharEimani

5. Human Resource Management Practices: A Comprehensive Review, Pakistan Business Review, January-2012,

6. ICFAI-"Introduction to Human Resource Management" (2004): ICFAI Center for Management Research, Hyderabad.

7. **Mahmoud Ezzamel** Cardiff Business School Cardiff University, UK Simon Lilley School of Management University of Keele, UK Adrian Wilkinson Loughborough University Business School LoughBorough University, UK.

8. **Mrs. EktaSrivastava, Dr. NishaAgarwal, The Emerging Challenges in Human Resource Management**, International Journals of Scientific & Technology Research Volume -1 , Issue-6, July-2012, ISSN 2277-8616.

9. **PankajTiwariShriChimanbhai Patel Institute of Management & Research Ahmedabad-**380051 (India) KaruneshSaxena Faculty of Management Studies, MohanlalSukhadia University, Udaipur-313001, India,**Human Resource Management Practices : A Comprehensive Review.**

10. **PankajTiwariShriChimanbhai Patel Institute of Management & Research Ahmedabad**-380051 (India) KaruneshSaxena Faculty of Management Studies, MohanlalSukhadia University, Udaipur-313001, India,

11. **Patrick M. Wright**, **Cornell University Timothy M. Gardner, Brigham Young University Lisa M. Moynihan**, London Business School Human Resource Management Journal, Vol. 13 No 3, 2003.

12. **Patrick M. Wright**, Cornell University, **Timothy M. Gardner**, Brigham Young University, **Lisa M. Moynihan**, London Business School, Human Resource Management Journal, Vol. 13 No 3, 2003, pages 21-36.

13. Rogers, E.W. and Wright, P.M. (1998). 'Measuring organizational performance in strategic human resource management: problems, prospects and performance information markets'. Human Resource Management Review, 8, 311-331.

14. **Shamas-UR-rehmanToor.** (Corresponding Author) , PhD Candidate and Research Scholar Department of Building, Faculty of Design and Environment, National University of Singapore, Singapore, Problems and Challenges in Human Resource Management: Pakistan Journal of Commerce and Social Sciences Vol.1 2008.

15. **SyedAkhtaR , Daniel Z . Ding, and Gloria L . GE,** Strategic HRM Practices and their Impact on Company Performance in Chinese Enterprises, Human Resource Management, spring 2008, Vol. 47, No. 1, Pp. 15–32,

16. Talent Management: Empirical Research Results in magazineInternational Journal of Management and Commerce Innovations ISSN 2348-7585 (Online) Vol. 2, Issue 1, pp: (289-295), - September 2014, author DikshaGarg, 2Kavita Rani.

6.4. Websites:

1. **www.vidyanidhi.org** (for duplication check)

2. **www.isidev.org** (to check articles appeared in around 125 Indian journals & newspapers)

3. **www.igidr.ac.in** (for e-journals and books in economics, banking and finance)

4. **www.britishcouncil.org.in** (books, e-journals of UK-paid service)

5. **www.tiss.edu** (research projects, research report, & research abstracts in social science literature)

6. **www.icssr.org** (for fellowships, awards, sources, surveys in SS)

7. **www.sosig.uk.in** (a web portal on social science literature)

8. **www.infolibrarian.com/ejls.htm** (for free e-journals).

9. http://en.wikipedia.org/wiki/Human_resources retrieved on January 10, 2012.

10. . http://humanresources.about.com/od/glossaryh/f/hr_ management.htm retrieved on January 28, 2015.

7. Appendices.

Tilak Maharashtra Vidyapeeth, Pune

Topic:- Human Resource Management practices in Chemical Industries with Special Reference to Navi Mumbai MIDC .

Questionnaires   Study Purpose Only

Name of the Company: -

_____

_____

 Address:-   _____ _____

                         _____

Office Contact No:-   _____

Shri /Miss/Mrs.:- _____.-

 Status: - _____

Mobile No:-   _____.

Qualification:-_____

Mail ID   :-   ---

<u>(Please tick as may as applicable)</u>

Q.1. Which are the Sources used to get manpower supply in the organisation?

1) Internal Source

 2) External Source

 3) Internal and External source

4) If any other please specify.

Q.2. What internal source is adopted by your company from the following?

1) By internal advertising

2) By Promotion

3) By transfer from other units or department

4) Any other method specify.

Q.3. What external source are opted from the followings. (Mark as many as applicable)

a) Through employment exchange

b) Through open advertisement in leasing newspaper.

C) Through campus recruitment.

d) On deputation

e) Ex-servicemen agencies

f) Any other method, please specify

Q.4. What are the channels chosen your organisation for the selection of the employees?

a) Internal (Promotion, Transfer, References)

b) External (Advertising in news Papers, Advertising agencies)

c) Both.

Q.5. Whether all categorical / cadres of employees are confirmed in the probation period itself and also at the same time?

a) Yes   b) No.

Q.6. Which is the following determinant estimated to regularize new appointments / trainees?

a) Competition of probation period.

 b) Satisfactory performance during the probationary period

c)   Any other please specify.

Q.7. What are the means adopted for the placement of selected candidate?

a) Differential placement

 b) Single job placement.

 C) Job training.

Q.8. Does your organisation provide induction training to the employees of all cadre?

a) Yes   b) No.

Q.9. What are methods adopted for preparing executives for challenges and responsibilities?

a) In house training   b) In house training with external consultants

 c) Training by external agencies   d) on the job training

 e) send abroad for training.   f) Any other (Please specify)

Q.10. If there is any alteration in the job description of employees during the training?

a) Yes   b) No   c) None of these.

Q.11. What are the methods used for coaching your executives to learn and cope with the technological changes in your industries?

a) On – the – job training

b) In house training programmes.

C) Specified training with external programme

 d) Sends abroad for training.

Q.12. Is there any Human Resource Management system exit in your organisation?

a) Yes   b) No.

Q.13. What is the pattern of the updating of information?

   a) Continuously   b) Once in a year.   c) As and when required.

Q.14. The data of Human Resource Information system is employed for….

   a) Increments.   b) Consideration for special projects.

   c) Training requirement.   d) Higher level job.

   e) Transfer.   G) Planning Human Resource Development activity.

Q.15. Who shoulders the responsibilities of initiation and execution of employee's performance appraisal?

　　a) Immediate Supervisor.

　　b) The next level of superior along with immediate superior.

　　c) Human Resource Development department.

　　d) Committee.

　　e) If other please specify.

Q.16. Whether performance appraisal system is similar for all categories of officers?

　　a) Common all level of officers.

　　b) Different for different levels of officers.

Q.17. How is the performance appraisal system in your organisation?

　　a) Confidential appraisal system.

　　b) Open appraisal system.

　　c) Semi confidential appraisal system.

Q.18. For which administrative purpose the performance appraisal system is utilized?

　　a) Promotions.　　　　　b) Salary decisions.　　　　c) Transfer.

　　d) Demotion.　　　　　e) Job Enrichment.

Q.19. When doses the organisation take action on the appraisal report?

　　a) Immediate on the receipt of the report.

　　b) At the time of considering the annual increments.

　　c) At the time of promotion.

Q.20. Does any separate training department exist in your organisation?

a) Methods of Training to your employees.　b) Internal training.

c) External (Through- expert professional / Institutes / Consultant)

Q.21. How does the organisation encourage employees to sharpen their skills and performance?

a) Sponsoring for higher educational programme. b) Arranging training programme.

c) Guidance through professionals.　d) To study leaves. e) Incentives for taking projects.

Q.22. What are the factors that assist you in identification training needs of your manager?

a) From performances appraisal report.

b) Through potential appraisal

c) During performance review meetings.

d) Managers themselves indicate the nature of training needed.

e) Subject to changes in the task because of larger changes elsewhere.

f) Subject to changes in the task in the organization (growth/ diversification etc)

g) By doing frequent surveys of the training needs.

h) Involving the external consultants.

g) Another

Q.23. Tick the Career planning opportunities presented to the employees in your organisation?

a) Sponsoring for higher educational programme

b) Training abroad.

c) Coaching classes for professional Courses.

d) Grant of study leaves.

e) Preference for internal candidates for the new projects etc.

Q.24. Do you have Grievance Redressal cell in your Organisation?

a) yes   b) No.

Q.25. Does the Composition of Grievance Redressal Cell Committee have employees?

a) Yes.   b) No.

Q.26. Are you satisfied with the functioning and decisions of Grievance redressal committee?

a) Yes.   b) No

Q.27. How do you thrust of Grievance redressal on production?

a) Good.   b) Bad   c)   Nil

Q.28. Does your organisation provide the past retirement benefits?

a) Yes.   b) No.

Q.29. Does the Grievance Redressal cell get nomination from the employees?

a) Yes.   b) No.

Q. 30. Any Special awards received by your Company?

a) Yes.   b) No.

If YES, Please specify _____

Q.31. Do you take any care about environmental issues?

   a) Yes.   b) No.

If YES,   Please specify   a) water   b) Land   c) tree plantation   d) Any other

Q. 32. Any specific action is taken on Chemical outlets?

a) Yes   b) No.

Q. 33. . Is there any Notice board is installed to inform the employees about hazardous and fatal chemicals in the premises of the organisation?

a) Yes   b) No.

Q.34. Which sort of equipment / accessories are allotted to the workers in your organisation?

a) Permanent   b) Temporary.   c) Not supplied.

Q. 35. . Are you contended with the equipment's supplied?

a) Yes   b) No.

Q.36. Are there internal facilities available?

a) Yes   b) No.

If Yes. a) Consultant   b) Expert lectures   c) Other tools.

Q. 37. Do the employees of chemical industries Units are made aware about anticipate injuries?

a) Yes   b) No.

Q.38. Does your organisation conduct the media organisation of the employees?

a) Yes   b) No.

If Yes. at what intervals a) 3 months b) 6 months c) 9 Months d) 12 months.

Q.39. How do you adjudge your organisation in retaining employees in the last three years?

1) Bad   2) Good

Q.40. How do you assess Human Resource Management Practices of your organisation in previous three years?

1) Moderately Healthy   2) Very healthy.

*Q.41.*How do you adjudge the productivity of employees of your organisation in previous three years?

    1) Bad   2) Good

 (Below statements are related to organization climate. Read through each carefully and give our assessments by tick the appropriate number on as in scale. Please do not give a desirable response but not give what you actually feel about the climate in your organization.)

5.	*means*	*Almost always true.*
4.	*means*	*Mostly true.*
3.	*means*	*Sometime true.*
2.	*means*	*Rarely true.*
1.	*means*	*Not at all true.*

Q.42. Does the management believe that Human Resources are significant and they should be treated on human ground.

5	4	3	2	1

Q.43. Advancement of subordinate is treated as an organic part of managers / officers job.

5	4	3	2	1

Q 44. The potential policies of your organisation complement employee's advancement

5	4	3	2	1

Q.45. Senior Officers are pro in assisting their subordinates in their work.

5	4	3	2	1

Q.46. People in this company are advantageous to each other.

5	4	3	2	1

Q.47. Senior mentor juniors for the future responsibilities they are likely to shoulder.

5	4	3	2	1

Q.48. The Top management of the company acknowledges and nurtures the potential of the employees.

5	4	3	2	1

Q.49. The supervising officers always appreciate the effective work done by employees.

5	4	3	2	1

Q.50. People in the organisation do not carry any fixed mental impression about each other.

5	4	3	2	1

Q.51. Mistakes of employees are conveyed in a mild manner.

5	4	3	2	1

Q.52. The behaviour feedback informed to employees is taken seriously by them.

5	4	3	2	1

Q.53. Employees in the organisation underline the potential and weakness their supervising.

5	4	3	2	1

Q.54. When organisation sponsors employees for training, they learn from it seriously.

5	4	3	2	1

Q.55. Employers sponsor training programme according to the training needs of employees.

5	4	3	2	1

Q.56. Peoples are trustworthy towards each other in the organisation.

5	4	3	2	1

Q.57. . Employees open mindedly express their views with the supervisors.

5	4	3	2	1

Q.58. Employees open mindedly express their views with the subordinates.

5	4	3	2	1

Q.59. Delegation of authority is a normal procedure in the organisation to motivate the subordinates in dealing with higher responsibilities.

5	4	3	2	1

Q.60. Team spirit is of higher order in this organisation.

5	4	3	2	1

Q.61. When a problem crops ups, it is discussed frankly rather than back-biting and accusation.

5	4	3	2	1

Q.62. . Juniors are helped with career opportunities by the senior officers.

5	4	3	2	1

Q.63. The organisation informs the future plan to Management cadre so that they can nurture Juniors for the same.

5	4	3	2	1

Q.64. Job- rotation facilities the advancement of employees.

5	4	3	2	1

Synopsis

"A STUDY OF HUMAN RESOURCE MANAGEMENTPRACTICES IN CHEMICAL INDUSTRIES WITH SPECIAL REFERENCE TO NAVI MUMBAI. (2002 -12)"

SUBMITTEDTO THE

TILAK MAHARASHTRA VIDYAPEETH PUNE

FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

In Subject

Under the board of Management studies

BY

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June– 2018.

1: Part: A - RESEARCH OUTLINE.

1.1.   **Introduction.**
1.2.   **Background of the study.**
1.2.1.   **Importance of Chemical Industries**
1.2.2.   **Industrial Profile of Navi Mumbai**
1.3.   **Objectives of the study**
1.4.   **Research problems.**
1.5.   **Research Questions**
1.6.   **Hypotheses**
1.7.   **Limitations of the study**
1.8.   **Research Design**
1.9.   **Research Methodology and Techniques.**
1.9.1.   **Primary Data.**
1.9.1   A) **Sample size computation**
1.9.1   B) **Sample size determination using mean method.**
1.10.   **Secondary data**
1.11.   **Statistical Technique Used.**
1.12.   **Contribution of the Research work.**

1.1 Introduction.

The economic development of a country is judged by the accumulation of resources. Living and some non-living resources are important in achieving organizational goals. The livingresources i.e. 'Human Resource' can never be under-estimated in the light of its viable contribution and utility. The 'human resource' in any organization is capable of creating wonders. Chemical Industries play a significant role in the economic development of the country. It meets the growing needs of construction, power and mining industries besides fulfilling the various requirements of country. The capital goods as well as the consumer goods sub-sectors of the chemicals goods industries have made a substantial progress since the commencement of the planning era. Considering such role, the management of the Human resource is also necessary in chemical industries. To make proper use of all available resources, it is very important that the right type of personnel must be available in the right time to the organization. Therefore, it requires proper attention towards the recruitment, selection and training of the managerial as well as non-managerial employees. Human resources are a valuable asset. In an organization human resource should be made available as and when it is needed. This is the primary resource without

which other resources cannot be put to use. It is widely recognized that human resource is the most significant resource of all resources needed to run an organization. Attention must be paid towards acquiring, using, improving, upgrading and preserving such valuable assets. There should be optimum utilization of human resources. It has been realized that the human resources are the key resources in modern businesses and competitive economies. The nations and Companies that perform well will be those that can generate and keep educated skilled and experienced workers, managers and entrepreneurs. Management and planning of human resources is a matter of great responsibility, skills and initiative and it poses constant challenges to the virtuosity and innovative abilities of individuals. Human resource Management has gained importance since professionalization of management is now regarded as a must for the successful running of Industries/Enterprises. The main purpose of Human resource management is to improve the productive conditions of the people in the organization by obtaining, developing, utilizing, evaluating, maintaining and retaining employees. As a result, human resource management is mostly concerned with planning; organizing, directing and controlling of the procurement, compensation, integration and separation of human resource to the end those individual, organizational and societal objectives are accomplished.

1.2 Background of the study.

1.2.1. Importance of Chemical Industries

Chemical Industries are responsible for production of several commodities required for modern life style as well as growth of whole economy. Chemical industries cover most important facets of life such as Agriculture, environment, Food, Hygiene, Décor, transportation etc. These industries help us to live modern lifestyle

Chemical industries produce preservatives, taste enhancers, artificial flavors which enable us to increase shelf life of food. This helps in thriving food industry and enables us to enjoy food from every corner of the world.

More than 80% of the chemical industry concentrates on producing polymers, and plastics. They are not only used in packing, but also in numerous other things, like wiring, furniture, clothing, home décor, prosthesis and electronics. PVC piping, water tanks, huge storage containers are made out of plastics.

Fertilizers, and pesticides aids in the agriculture and development. The green revolution has happened only due to the advancement of chemical industry in India. Pharmaceutical industries produce several drugs which are used in medicines, Chemical industries also produces several commodities such as soaps, scents, perfumes, personal care products, detergents, cleaning agents etc. which are used in our daily life and have become essential commodity for us. Chemical industries also enable us for further research in bio-engineering, mutation development of artificial human organs etc.

1.2.2. Industrial Profile of Navi Mumbai.

Navi Mumbai is a planned city established by government of Maharashtra with an intention to provide an alternate path of growth and defuse pressure of population on Mumbai. Navi Mumbai has two major industrial areas known as Thane Belapur MIDC and Taloja MIDC.

Thane – Belapur MIDC is one of the largest industrial region in India. It is situated between Thane and Belapur and also known as TTC i.e. Trans Thane Creek. It is developed by MIDC. It is spread over 27 Sq. Km. It 2200 units comprising small, medium and large units carrying different activities. Chemical industries in prominent feature of this region and several companies have set up their production facilities in the region. It includes Savita Chemical, Haredelia, Wockhaeart NOCIL, etc.

Taloja MIDC is comparatively smaller than Thane Belapur MIDC. It spread over 2157.95 Acres of land and situated 8Kms. Away from Panvel. It also has small medium and large industrial units. it also has prominent chemical companies such as Deepak Fertilizers, Pidilite Industries, Kokuyo Camlin, Hikal, Deepak Nitrate, Galaxy etc.

Both Industries MIDC are provides and direct and indirect employment to the people. It is estimated that approx 3,00,000 peoples get direct or indirect employment due to the industries in these 2 MIDC. As far as modern management is concerned whenever a employee is appointed Human Resource practices need to be employed in the company.

1.3 Objectives of the study:

- To study human resources Management practices prevailing in chemical industries.
- To survey the awareness in the chemical industries about HRM practices
- To identify the constraints of HRM practices in chemical industries.

1.4 Research problems.

Literature review enable to identify gaps and also to frame research problem for the study, the research problem of the study is whether Human Resource Practices adopted in chemical industries in Navi Mumbai are adequate.

1.5 Research Questions:

Human Resource Management practices are an evolving concept different practices are invented by the organization. Whether the employees are working in chemical industries of Navi Mumbai are satisfied with the different Human Resource Management Practices followed by the organization.

1.6 Hypotheses:

H1: "Existing Human Resource Management Practices of Chemical Industries in Navi Mumbai are healthy (adequate)"

H2: "Employees retention is a result of Healthy Human Resource Management Practices in Chemical Industries in Navi Mumbai hence there is no shortage of skilled human resources in chemical industries in Navi Mumbai"

H3: "Healthy HRMP of Chemical Industries in Navi Mumbai as enables the companies to make the employees more productive."

1.7 Limitations of the study:

1. Study period is only 2002 to 2012.
2. Geographical Limitations: The study is restricted to chemical Industries situated in Thane Belapur MIDC Area in Navi Mumbai.

1.8 Research Design.

The study is focused on Human Resource Management Practices followed in Chemical Industries in Navi Mumbai. The study depends on collection of primary as well as secondary data. Following tables presents research design applied for the study.

Table 1.1. Research design of the study.

Sr. No.	Parameters	Description.
1	Type of research	Descriptive Research
2	Nature of Research	Quantitative
3	Research Instrument	Structured Questionnaire and Interviews
4	Survey Period	2002 to 2012
5	Method of data collection.	Sample survey
6	Universe	Employees in Chemical Industries in Navi Mumbai
7	No. of Chemical Industries	82
8	Total No. of Employees in all companies	Approx 16000
9	No of Companies selected	20
10	Sample Method	Mean Method by applying formula $$N = \frac{z^2 * s^2}{e^2}$$
11	Data Collection source.	Primary and secondary Source
12	Primary source	Structured Questionnaire and Interviews
13	Secondary Sources.	Books, references, Periodicals, Project Reports, News Papers and Interviews.
14	Tools for data analysis	Tabulation, Graphs,
15	Statistical Software	SPSS
16	Test	KMO and Bartlett's Test, Spearman, Cramer's, Chi - Square, Binomial

1.9. Research Methodology and Techniques.

The research is based on Primary as well as secondary data. Primary data is collected by sample survey method through questionnaire and secondary data is collected through Books, Journals, Research Papers, Websites etc.

1.9. 1 Primary Data

The research is based on sample survey method. It is focused on responses collected from sample i.e. employees of chemical industries in Navi Mumbai. Total 82 companies are operating in the area of which 20 companies are selected to collect sample for the study.

The companies who are member of Thane Belapur Industrial Association and satisfying Following conditions are selected to collect sample.

1. Companies with ISO Certification
2. Recipient of Awards
3. Environmental conscious
4. Adoption of Corporate Social Responsibility
5. Turnover
6. Shares
7. More than 100 employees
8. Involved in Import and Export.

Following twenty Large Scale Chemicals Industries are selected for study on the basis of above conditions.

Table 1.2. List of selected companies

Sr. No.	Name of the Chemical Company
1	Amines and Plasticizes ltd.
2	Associated Chemicals
3	Bharat Mercantile Company
4	Bombay Ammonia Chemicals co.
5	CMP Pvt. Ltd.
6	Hebbar Chemicals P. Ltd.
7	Henkel Adhesive Technologies (i) Ltd.
8	Hindustan Platinum P. Ltd.
9	Indl. Minerals and Chem. Pvt.Co.P. ltd.
10	Lubrizol India Pvt. Ltd.
11	Mazda Colours Ltd
12	MesukaEngineering Co. P. Ltd.

Sr. No.	Name of the Chemical Company
13	Metcon Coatings and Chemicals (p) Ltd.
14	NOCIL
15	Pfizer Ltd.
16	RPG Life Sciences Ltd.
17	Sara Chem. (I) P. Ltd.
18	Savita Oil Technologies ltd.
19	Tytan Organic P. Ltd.
20	Zydusnycomed Healthcare P. Ltd.

(Source: Primary Data)

1.9.1 A) Sample size computation

The population for the current study comprised of 82 chemicals companies in order to select the right portion of the population as sample approximately 25% of the companies was randomly chosen for selection of sample elements. Hence 20 companies were covered under the study. Sample size of 300 was determined using sample size determination using mean method. Following discussion provides explanation and justification of sample size determination. These 300 respondents were picked equal proportion from each of the 20 companies, i.e. 15 respondents each from 20 companies.

Sample size = 300 employees of 20 chemical companies from Navi Mumbai.

1.9.1. B) Sample size determination using mean method

Sample size was determined using sample size determination by mean method.

Variables in study were measured using a 5-point measurement scale, hence the mean method was adopted.

Formula

$$N = \frac{z^2 * s^2}{e^2}$$

Where, 'z' is the standard score associated with confidence level (95% in the current case). Hence standard scores equal to 1.96 (borrowed from normal table)

'S' is the variability in the data set, computed as a ratio of range / 6. Range is equal to 5-1 = 4 (the difference between minimum and maximum value in the 5point scale). 6 refers to ±3 standard deviation values on the X axis of the standard normal curve, which takes in all the data set in study.

Hence S = 4/6 = 0.66

E is the tolerable error = 8% (in the current study).

Sample size n $= \frac{1.96^2 * 0.66^2}{0.08^2} = 261$

In order to deal with non -response approximately 15 % of the sample size was taken as a buffer.

261*15%= 39

Therefore 261+39=, 300

Therefore 300 is the sample size that was taken into consideration

1.10. Secondary Data

Secondary Data was collected through various books, references, journals, magazines, newspaper articles, periodicals and websites.

1.11. Statistical Techniques Used.

Different statistical techniques are used for analysis of data and validation of hypotheses it includes tabulation, graphs, KMO and Bartlett's Test, Spearman, Cramers, Chi - Square, Binomial Test

1.12. **Contribution of the Research work:**

The study will be beneficial in following ways

1. It will be beneficiary for all industries in general and Industries in Navi Mumbai will be specifically benefitted as the study reveal gaps and strong aspects of Human Resource Practices followed by Large Chemical Industries in Navi Mumbai.
2. It will help the government to identify if any corrective action is required
3. It will help the students of MMS, BMS and students of other faculties as it provides a real life picture of employee situation

4. It will academicians as it could be a good case study on Human Resource Practices followed in Navi Mumbai specifically in chemical industries.

5. It will help management of the companies to identify causes of attrition among the employees and to take suitable action for the same.

<h1 style="text-align:center">2: Part: B CHAPTERS IN BRIEF.</h1>

a. **Introduction**

b. **Literature Review.**

c. **Research Methodology.**

d. **Data Analysis.**

e. **Findings, Suggestions and Recommendations for the study.**

2.1 Introduction.

In this chapter background for the HRM Practices and Industries in Navi Mumbai are mentioned .the chapter also lead down foundation and background study of the research. HRM Practices in Chemical Industries in Navi Mumbai. In this chapter various HRM Practiced adopted by chemical Industries in Navi Mumbai were reviewed and presented, which gives background for data the analysis at other related research.

2.2.Literature Review.

For the purpose of the study researcher had reviewed present study made on the subject various books, magazines, periodicals, references, Articles newspapers, web sites were reviewed. The review of each of materials is presented in the chapter and gaps were identified for the further study.

2.3.Research Methodology.

 In this Chapter research design is presented. Research design had lead down had provided guidelines for the research that was conducted by the researcher. It mentions research methodology adopted for the research. Samples and other basic elements required for the research.

2.4.Data Analysis.

In this Chapter collected data is analyzed and presented. Data is tabulated and its findings are presented in tables and graphs. Test and retest method also included in the chapter. Reliability test were conducted and inducted in the chapter.

2.5.Findings, Suggestions and Recommendations for the study.

In this chapter various finding of the research are mentioned. The hypotheses for the study were tested for its validation. The chapter contents finding of the research and hypothesis of the study tested for its validation. Chapter also gives recommendation by the researcher the different stake holders e.g. HRM Manager, Top management Government, etc. Following is the some important recommendations.

3: Part C   Data Analysis and Findings

3.1. Introduction.

3.2. Sample Profile.

3.3. Reliability Analysis

3.1 Introduction.

Researcher has compiled information from 300 employees of selected chemical industries in Navi Mumbai. The information is collected through a questionnaire which is enclosed in Annexure 1 of the thesis. The collected data is analyzed to find out fact. The analyses are presented below.

3.2 Sample Profile

Table 3.1. Profile of the sample

Sr. No	Variable	Response	Options	Frequency
1	Gender	Female	20	6.7
		Male	280	93.3
		Total	300	100.0
2	Marital Status	Married	270	90.0
		Unmarried	30	10.0
		Total	300	100.0
3	Family Structure	Joint	79	26.3
		Nuclear	221	73.7
		Total	300	100.0
4	Age (Binned)	20 and less than 25	18	6.0
		25 and less than 35	48	16.0
		35 and less than 40	169	56.3
		40 and less than 45	42	14.0
		45 and less than 50	21	7.0
		50 and above	2	.7
		Total	300	100.0
5	Educational Qualification	Graduate	130	43.3
		Undergraduate	170	56.7
		Total	300	100.0

(Source: Primary data)

3.3 Reliability Analysis

Reliability is the ability of the scale to produce consistent result. In the current study, the reliability is confirmed using test-retest method. Test-retest method is quite in practice and state forward method of validating reliability. In this method, the same instrument is administrated on the same set of respondents on two different occasions. The two set of responses are then correlated to assess reliability.

Spearman's rho rank order correlation is use to correlate interval scale variables and phi and Cramer's V is to correlate categorical variables. Spearmen's correlation coefficient value more than 0.9 and Phi and Cramer's V value more than 0.5 indicate reliability. (Ref Table 4.2 on page no 110)

4: Part – D Finding Conclusion & Suggestions

4.1. Findings.

4.2. Conclusion, Validation of Hypotheses.

4.3. Variables and Measurement.

4.4 Suggestions & Recommendations

4.1 Findings

Researcher had presented findings are categorized as follows

Category - I Finding in respect of Human Resource Management practices in Chemical Industries in Navi Mumbai

Category - II Findings in respect of the awareness in Chemical Industries about Human Resources Management Practices.

Category - III Finding in respect of constraints of related to Human Resource Management Practices in chemical industries in Navi Mumbai.

Category - IV Other Findings.

A detailed findings are presented in chapter – 5 of the thesis

4.2. Conclusion, Validation of Hypotheses

Hypotheses of the study are validated by applying appropriate statistical test as follows.

H1."Existing Human Resource Management Practices of Chemical Industries in Navi Mumbai are healthy (adequate)"

Statistical Test: Binomial Test.

4.3. Variables and Measurement

Employees of Chemical Industries were asked to comment on the following statement related to the above a five-point scale (1= Very healthy, 2= Less/ Moderately healthy)

i. Encouraging Team spirit.
j. Self-Motivation.
k. Future Oriented/Future Planning.
l. Organizational Activities, Leadership Qualities.
m. Progressive Activities.
n. Cooperativeness / Unity Strength.
o. Challenges to Progressive activities.
p. Concentration on Employees.

Cut point: the original 5-point scale was converted to 2- point scale using CUT POINT option as "3" in IMBSPSS 21. Hence the newly created categories were

< = 3: Not adequate.

> 3: adequate.

Test Proportion: Test proportion was taken as 0.5. Since more than 50% of favorable responses to a particular category suggest greater approval for this category. **Hence P = 0.5**

H0: P ≤ 0.5 (proportion of responses indicating "Existing Human Resource Management Practices of Chemical Industries in Navi Mumbai are healthy (adequate)" less than or equal to 50%)

H1: **P**> 0.5 (proportion of responses indicating "Existing Human Resource Management Practices of Chemical Industries in Navi Mumbai are healthy (adequate)" is more than 50%)

Levels of significance <= 0.05

Table: 4.1: Binomial Test.(I)

		Category	N	Observed Prop.	Test Prop.
Binomial Test					
Encouraging Team spirit	Group 1	<= 3	151	.50	.50
	Group 2	> 3	149	.50	
	Total		300	1.00	
Self Motivation	Group 1	<= 3	64	.21	.50
	Group 2	> 3	236	.79	
	Total		300	1.00	
Future Oriented future Planning	Group 1	<= 3	69	.23	.50
	Group 2	> 3	231	.77	
	Total		300	1.00	
Leadership Qualities	Group 1	<= 3	69	.23	.50
	Group 2	> 3	231	.77	
	Total		300	1.00	
Progressive Activities	Group 1	<= 3	73	.24	.50
	Group 2	> 3	227	.76	
	Total		300	1.00	
Cooperativeness	Group 1	<= 3	163	.54	.50
	Group 2	> 3	137	.46	
	Total		300	1.00	
Challenges To Progressive Activities	Group 1	<= 3	113	.38	.50
	Group 2	> 3	187	.62	
	Total		300	1.00	
Concentration On Employees To Develop all Employees	Group 1	<= 3	149	.50	.50
	Group 2	> 3	151	.50	
	Total		300	1.00	

(Source: Primary Data)

Table: 4.2 : Binomial Test.(II)

Binomial Test		Exact Sig. (2-tailed)
Encouraging Team spirit	Group 1	.954
	Group 2	
	Total	
Self Motivation	Group 1	.000
	Group 2	
	Total	
Future Oriented future Planning	Group 1	.000
	Group 2	
	Total	
Leadership Qualities	Group 1	.000
	Group 2	
	Total	
Progressive Activities	Group 1	.000
	Group 2	
	Total	
Cooperativeness	Group 1	.149
	Group 2	
	Total	
Challenges To Progressive Activities	Group 1	.000
	Group 2	
	Total	
Concentration On Employees To Develop all Employees	Group 1	0.954
	Group 2	

(Source: Primary Data)

Interpretation:

a) Encouraging team spirit

Observed proportion: 0.5 Test proportion: 0.5, P = 0.954

Hence only 50% of the respondents agree that there is team spirit in change employee of the organization

b) Self-Motivation

Observed Proportion: 0.79 test proportion 0.5, P= 0.000

Hence more than 50% of the respondents agree that employees of the organization self-motivated.

c) Future Oriented / Future Planning

Observed Proportion.0.77 Test proportion 0.5, P= 0.000

Hence more than 50% of the respondent agrees that employees of the organisation are future Oriented.

d) Leadership Qualities

Observed Proportion.0.77 Test proportion 0.5, P= 0.000

Hence more than 50% of the respondent agrees employees of the organization have leadership qualities.

e) Progressive activities.

Observed Proportion.0.76 Test proportion 0.5, P= 0.000

Hence more than 50% of the respondent agrees that employees of the organisation are found in progressive activities.

f) Cooperativeness

Observed Proportion.0.46 Test proportion 0.5, P= 0.149

Hence less than 50% of the respondents agree employees of the organization are not found Cooperativeness.

g) Challenges to progressive activities

Observed Proporation.0.62 Test proportion 0.5, P= 0.000

Hence more than 50% of the respondent agrees those employees of the organization are found challenges to progressive activities.

h) Concentration on employees to develop all employees.

Observed proportion: 0.5 Test proportion: 0.5, P = 0.954

Hence only 50% of the respondents agree that there is Concentration on employees to develop all employees in change employee of the organization

Out of 8 variables, 5 variables have observed proportion more than 0.50 and P value less than 0.05, hence the hypothesis, 'Human Resource Management Practices in Chemical Industries are healthy (adequate) is proved'.

1. **H2: "Employees retention is a result of Healthy Human Resource Management Practices in Chemical Industries in Navi Mumbai"**

Statistical Test: Chi square test

Variables and Measurement:

Employee retention is categorical variables measured using two response option,(1= bad, 2= good)

Human resource Management Practices is also a categorical variable with two response options (1= moderately healthy, 2= very healthy)

Levels of Significance: α= 0.05.

H0: Employee retention is independent of healthy HRM Practices.

H1 : Employee retention depends upon Healthy HRMP.

Since the Chi Square Test is significance (P < 0.05) the NULL hypothesis is rejected, hence it is concluded that Employees retention depend upon Healthy Human Resource Management Practices.

Table: 4.3. : Chi-Square Test

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	68.571[a]	1	.000		
Continuity Correction	66.530	1	.000		
Likelihood Ratio	70.115	1	.000		
Fisher's Exact Test				.000	.000
N of Valid Cases	300				

(*Source: Primary Data*)

Table: 4.4. Employees Retention HRM Practices Cross Tabulation.

Employee Retention * HRM Practices Cross tabulation					
			HRM Practices		
			moderately healthy	Very healthy	Total
Employee Retention	bad	Count	75	50	125
		% within Employee Retention	60.0%	40.0%	100.0%
	good	Count	25	150	175
		% within Employee Retention	14.3%	85.7%	100.0%
Total		Count	100	200	300
		% within Employee Retention	33.3%	66.7%	100.0%

(*Source: Primary Data*)

From the cross tabulation table it can be affirmed that out of the 175 respondents who said that retention is good 85%   agreed that HRMP are very healthy and out of the 125 employees who said employee's retention is bad, 60% agreed that HRMP are moderately healthy.

Hence it can be concluded that employee retention is result of healthy Human Resource Management Practices.

2. **H3: "Employee productivity is a result of healthy Human Resource Management Practices in Chemical Industries in Navi Mumbai."**

Statistical test:- Chi square test.

Variable and Measurement:

Employee productivity is categorical variable measured using two response options (1=bad 2= Good).

Human Resource management Practices is also categorical variable with two response options (1= moderately healthy, 2= Very healthy)

H0 : Employee productivity is independent of healthy Human Resource Management Practices.

H1: Employee productivity depends upon healthy Human Resource Management Practices.

Table: 4. 5.Employee Productivity HRM Practices Cross tabulation

<table>
<tr><td colspan="9">Employee Productivity * HRM Practices Cross tabulation</td></tr>
<tr><td></td><td></td><td></td><td colspan="2">HRM Practices</td><td></td></tr>
<tr><td></td><td></td><td></td><td>moderately healthy</td><td>Very healthy</td><td>Total</td></tr>
<tr><td rowspan="4">Employee Productivity</td><td rowspan="2">bad</td><td>Count</td><td>80</td><td>55</td><td>135</td></tr>
<tr><td>% within Employee Productivity</td><td>59.3%</td><td>40.7%</td><td>100.0%</td></tr>
<tr><td rowspan="2">good</td><td>Count</td><td>20</td><td>145</td><td>165</td></tr>
<tr><td>% within Employee Productivity</td><td>12.1%</td><td>87.9%</td><td>100.0%</td></tr>
<tr><td colspan="2" rowspan="2">Total</td><td>Count</td><td>100</td><td>200</td><td>300</td></tr>
<tr><td>% within Employee Productivity</td><td>33.3%</td><td>66.7%</td><td>100.0%</td></tr>
</table>

(Source: Primary Data)

Table :4.6. Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	74.242[a]	1	.000		
Continuity Correction	72.136	1	.000		
Likelihood Ratio	77.535	1	.000		
Fisher's Exact Test				.000	.000
N of Valid Cases	300				

(Source: Primary Data)

From the cross table, it can be seen that out of 165 respondents who said that Employees productivity is good, 87.9% agreed that Human Resource Management Practices are very healthy and out of 135 employees who said that Employees productivity is Bad, 59.3% agreed that Human resource Management Practices are Moderately healthy.

Hence it can be concluded that employee productivity is a result good Human Resource management Practices.

4.4. Suggestions & Recommendations

Researcher had provided suggestions to different stakeholders on the basis of his research. This include

1. Suggestions to HR Manager and Management of the organization
2. Suggestions to Government
3. Suggestions to Employees

Detail suggestion are presented on page 244 Chapter 5 of the thesis

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Appendices(C) : 7.3: Test Retest

Test- Retest

Factor analysis is a data reduction technique. It is use to reduce a set of variables into a few manageable factors. In the current study 64 variables have been used to measure Human Resource Management practices in chemical industries of Navi Mumbai. List of the variables given below.

Symmetric Measures

Sr. No.	Statement (Test/ Retest)			Value	Approx. Sig.
1	Which are the Sources used to get manpower supply in the organisation?	Nominal by Nominal	Phi	1.140	.000
			Cramer's V	0806	.000
		N of Valid Cases		30	
2	What internal source is adopted by your company from the following?	Nominal by Nominal	Phi	1.631	.000
			Cramer's V	.942	.000
		N of Valid Cases		30	
3	What external sources are opted from the followings?	Nominal by Nominal	Phi	1.856	.000
			Cramer's V	.928	.000
		N of Valid Cases		30	
4	What are the channels chosen your organisation for the selection of the employees?	Nominal by Nominal	Phi	1.159	.000
			Cramer's V	.819	.000
		N of Valid Cases		30	
5	Whether all categorical / cadres of employees are confirmed in the probation period itself and also at the same time?	Nominal by Nominal	Phi	.866	.000
			Cramer's V	.866	.000
		N of Valid Cases		30	
6	Which is the following determinant estimated to regularize new appointments / trainees?	Nominal by Nominal	Phi	1.163	.000
			Cramer's V	.822	.000
		N of Valid Cases		30	
7	What are the means adopted for the placement of selected candidate?	Nominal by Nominal	Phi	.814	.000
			Cramer's V	.814	.000
		N of Valid Cases		30	
8	Does your organisation provide induction training to the employees of all cadres?	Nominal by Nominal	Phi	1.912	.000
			Cramer's V	.956	.000
		N of Valid Cases		30	

9	What are methods adopted for preparing executives for challenges and responsibilities?	Nominal by Nominal	Phi	.444	.015
			Cramer's V	.444	.015
		N of Valid Cases		30	
10	What is the methods used for coaching your executives to learn and cope with the technological changes in your industries	Nominal by Nominal	Phi	1.581	.000
			Cramer's V	.913	.000
		N of Valid Cases		30	
11	Is there any Human Resource Management system exit in your organisation?	Nominal by Nominal	Phi	1.143	.000
			Cramer's V	.808	.000
		N of Valid Cases		30	
12	What is the pattern of the updating of information?	Nominal by Nominal	Phi	1.805	.000
			Cramer's V	.903	.000
		N of Valid Cases		30	
13	The data of Human Resource Information system is employed for…	Nominal by Nominal	Phi	1.639	.000
			Cramer's V	.946	.000
		N of Valid Cases		30	
14	Who shoulders the responsibilities of initiation and execution of employee's performance appraisal?	Nominal by Nominal	Phi	1.843	.000
			Cramer's V	.922	.000
		N of Valid Cases		30	
15	Whether performance appraisal system is similar for all categories of officers?	Nominal by Nominal	Phi	1.476	.000
			Cramer's V	.852	.000
		N of Valid Cases		30	
16	How is the performance appraisal system in your organisation?	Nominal by Nominal	Phi	1.517	.000
			Cramer's V	.876	.000
		N of Valid Cases		30	
17	For which administrative purpose the performance appraisal system is utilized?	Nominal by Nominal	Phi	1.234	.000
			Cramer's V	.873	.000
		N of Valid Cases		30	
18	When doses the organisation take action on the appraisal report?	Nominal by Nominal	Phi	1.243	.000
			Cramer's V	.879	.000
		N of Valid Cases		30	
19	Does any separate training department exist in your organisation?	Nominal by Nominal	Phi	.729	.000
			Cramer's V	.729	.000
		N of Valid Cases		30	

20	How does the organisation encourage employees to sharpen their skills and performance?	Nominal by Nominal	Phi	2.342	.000
			Cramer's V	.956	.000
		N of Valid Cases		30	
21	What are the factors that assist you in identification training needs of your manager?	Nominal by Nominal	Phi	1.83.3	.000
			Cramer's V	.917	.000
		N of Valid Cases		30	
22	Tick the Career planning opportunities presented to the employees in your organisation	Nominal by Nominal	Phi	1.585	.000
			Cramer's V	.915	.000
		N of Valid Cases		30	
23	Do you have Grievance Redressal cell in your Organisation?	Nominal by Nominal	Phi	.196	.283
			Cramer's V	.196	.283
		N of Valid Cases		30	
24	Does the Composition of Grievance Redressal Cell Committee have employees?	Nominal by Nominal	Phi	.196	.283
			Cramer's V	.196	.283
		N of Valid Cases		30	
25	Are you satisfied with the functioning and decisions of Grievance redressal committee?	Nominal by Nominal	Phi	.375	.040
			Cramer's V	.375	.040
		N of Valid Cases		30	
26	How do you thrust of Grievance redressal on production?	Nominal by Nominal	Phi	.802	.000
			Cramer's V	.802	.000
		N of Valid Cases		30	
27	Does your organisation provide the past retirement benefits?	Nominal by Nominal	Phi	.814	.000
			Cramer's V	.814	.000
		N of Valid Cases		30	
28	Does the Grievance Redressal cell get nomination from the employees?	Nominal by Nominal	Phi	.111	.543
			Cramer's V	.111	.543
		N of Valid Cases		30	
29	Any Special awards received by your Company?	Nominal by Nominal	Phi	.583	.000
			Cramer's V	.583	.000
		N of Valid Cases		30	
30	Do you take any care about environmental issues?	Nominal by Nominal	Phi	.034	.850
			Cramer's V	.034	.850
		N of Valid Cases		30	

Symmetric Measures

Sr. No	Statement No. (Test/ Retest)			Value	Approx. Sig.
31	Any specific action is taken on Chemical outlets?	Nominal by Nominal	Phi	.356	.051
			Cramer's V	.356	.051
		N of Valid Cases		30	
32	Is there any Notice board is installed to inform the employees about hazardous and fatal chemicals in the premises of the organisation?	Nominal by Nominal	Phi	.864	.000
			Cramer's V	.864	.000
		N of Valid Cases		30	
33	Which sorts of equipment / accessories are allotted to the workers in your organisation?	Nominal by Nominal	Phi	.802	.000
			Cramer's V	.802	.000
		N of Valid Cases		30	
34	Are you contended with the equipment's supplied?	Nominal by Nominal	Phi	1.252	.000
			Cramer's V	.885	.000
		N of Valid Cases		30	
35	Are there internal facilities available?	Nominal by Nominal	Phi	.866	.000
			Cramer's V	.866	.000
		N of Valid Cases		30	
36	Do the employees of chemical industries Units are made aware about anticipate injuries?	Nominal by Nominal	Phi	.921	.000
			Cramer's V	.921	.000
		N of Valid Cases		30	
37	Whether the medical examination of the employee is regularly conducted?	Nominal by Nominal	Phi	.380	.037
			Cramer's V	.380	.037
		N of Valid Cases		30	
38	How do you adjudge your organisation in retaining employees in the last three years?	Nominal by Nominal	Phi	1.649	.000
			Cramer's V	.952	.000
		N of Valid Cases		30	
39	How do you assess Human Resource Management Practices of your organisation in previous three years?	Nominal by Nominal	Phi	1.309	.000
			Cramer's V	.926	.000
		N of Valid Cases		30	.000
40	The potential policies of your organisation complement employee's advancement	Nominal by Nominal	Phi	1.859	.000
			Cramer's V	.929	
		N of Valid Cases		30	

Correlations

Sr. No.				Test	Retest
41	Spearman's rho	Senior Officers are pro in assisting their subordinates in their work. (test)	Correlation Coefficient	1.000	.935**
			Sig. (2-tailed)	.	.000
			N	30	30
		Senior Officers are pro in assisting their subordinates in their work. (retest)	Correlation Coefficient	.935**	1.000
			Sig. (2-tailed)	.000	.
			N	30	30
42	Spearman's rho	People in this company are advantageous to each other. (test)	Correlation Coefficient	1.000	.971**
			Sig. (2-tailed)	.	.000
			N	30	30
		People in this company are advantageous to each other. (retest)	Correlation Coefficient	.971**	1.0000
			Sig. (2-tailed)	.000	.
			N	30	30
43	Spearman's rho	Senior mentor juniors for the future responsibilities they are likely to shoulder. (test)	Correlation Coefficient	1.000	.988**
			Sig. (2-tailed)	.	.000
			N	30	30
		Senior mentor juniors for the future responsibilities they are likely to shoulder. (retest)	Correlation Coefficient	.988*	1.000
			Sig. (2-tailed)	.000	.
			N	30	30
44	Spearman's rho	The Top management of the company acknowledges and nurtures the potential of the employees. (test)	Correlation Coefficient	1.000	.968**
			Sig. (2-tailed)	.	.000
			N	30	30
		The Top management of the company acknowledges and nurtures the potential of the employees. (retest)	Correlation Coefficient	.968**	1.000
			Sig. (2-tailed)	.000	.
			N	30	30

45	Spearman's rho	The supervising officers always appreciate the effective work done by employees. (test)	Correlation Coefficient	1.000	1.000**
			Sig. (2-tailed)	.	.
			N	30	30
		The supervising officers always appreciate the effective work done by employees. (test)	Correlation Coefficient	1.000**	1.000
			Sig. (2-tailed)	.	.
			N	30	30
46	Spearman's rho	People in the organisation do not carry any fixed mental impression about each other.(test)	Correlation Coefficient	1.000	.982
			Sig. (2-tailed)	.	.000
			N	30	30
		People in the organisation do not carry any fixed mental impression about each other.(retest)	Correlation Coefficient	.982	1.000
			Sig. (2-tailed)	.000	.
			N	30	30
47	Spearman's rho	Mistakes of employees are conveyed in a mild manner. (test)	Correlation Coefficient	1.000	.979
			Sig. (2-tailed)	.	.000
			N	30	30
		Mistakes of employees are conveyed in a mild manner. (retest)	Correlation Coefficient	.979	1.000
			Sig. (2-tailed)	.000	.
			N	30	30
48	Spearman's rho	The behaviour feedback informed to employees is taken seriously by them (test)	Correlation Coefficient	1.000	.989
			Sig. (2-tailed)	.	.000
			N	30	30
		The behaviour feedback informed to employees is taken seriously by them (retest)	Correlation Coefficient	.989	1.000
			Sig. (2-tailed)	.000	.
			N	30	30

49	Spearman's rho	Employees in this organization underline the potential and weakness their supervising. (test)	Correlation Coefficient	1.000	1.000
			Sig. (2-tailed)	.	.
			N	30	30
		Employees in this organization underline the potential and weakness their supervising. (retest)	Correlation Coefficient	1.000	1.000
			Sig. (2-tailed)	.	.
			N	30	30
50	Spearman's rho	When organisation sponsors employees for training, they learn from it seriously. (test)	Correlation Coefficient	1.000	.963
			Sig. (2-tailed)	.	.000
			N	30	30
		When organisation sponsors employees for training, they learn from it seriously. (retest)	Correlation Coefficient	.963	1.000
			Sig. (2-tailed)	.000	.
			N	30	30
51	Spearman's rho	Employers sponsor training programme according to the training needs of employees. (test)	Correlation Coefficient	1.000	.984
			Sig. (2-tailed)	.	.000
			N	30	30
		Employers sponsor training programme according to the training needs of employees. (retest)	Correlation Coefficient	.984	1.000
			Sig. (2-tailed)	.000	.
			N	30	30
52	Spearman's rho	Peoples are trustworthy towards each other in the organisation. (test)	Correlation Coefficient	1.000	.952
			Sig. (2-tailed)	.	.000
			N	30	30
		Peoples are trustworthy towards each other in the organisation. (retest)	Correlation Coefficient	.952	1.000
			Sig. (2-tailed)	.000	.
			N	30	30

53	Spearman's rho	Employees open mindedly express their views with the supervisors. (test)	Correlation Coefficient	1.000	1.000
			Sig. (2-tailed)	.	.
			N	30	30
		Employees open mindedly express their views with the supervisors. (retest)	Correlation Coefficient	1.000	1.000
			Sig. (2-tailed)	.	.
			N	30	30
54	Spearman's rho	Employees open mindedly express their views with the subordinates. (test)	Correlation Coefficient	1.000	.989
			Sig. (2-tailed)	.	.000
			N	30	30
		Employees open mindedly express their views with the subordinates. (retest)	Correlation Coefficient	.989	1.000
			Sig. (2-tailed)	.000	.
			N	30	30
55	Spearman's rho	Delegation of authority is a normal procedure in the organisation to motivate the subordinates in dealing with higher responsibilities. (test)	Correlation Coefficient	1.000	.940
			Sig. (2-tailed)	.	.000
			N	30	30
		Delegation of authority is a normal procedure in the organisation to motivate the subordinates in dealing with higher responsibilities. (retest)	Correlation Coefficient	.940	1.000
			Sig. (2-tailed)	.000	.
			N	30	30
56	Spearman's rho	Team spirit is of higher order in this organization. (test)	Correlation Coefficient	1.000	.970
			Sig. (2-tailed)	.	.000
			N	30	30
		Team spirit is of higher order in this organization. (retest)	Correlation Coefficient	.970	1.000
			Sig. (2-tailed)	.000	.
			N	30	30

57	Spearman's rho	When a problem crops ups, it is discussed frankly rather than back-biting and accusation. (test)	Correlation Coefficient	1.000	.929
			Sig. (2-tailed)	.	.000
			N	30	30
		When a problem crops ups, it is discussed frankly rather than back-biting and accusation. (retest)	Correlation Coefficient	.929	1.000
			Sig. (2-tailed)	.000	.
			N	30	30
58	Spearman's rho	Juniors are helped with career opportunities by the senior officers.(test)	Correlation Coefficient	1.000	1.0000
			Sig. (2-tailed)	.	.
			N	30	30
		Juniors are helped with career opportunities by the senior officers.(retest)	Correlation Coefficient	1.000	1.0000
			Sig. (2-tailed)	.	.
			N	30	30
59	Spearman's rho	The organisation informs the future plan to Management cadre so that they can nurture Juniors for the same. (test)	Correlation Coefficient	1.000	.976
			Sig. (2-tailed)	.	.000
			N	30	30
		The organisation informs the future plan to Management cadre so that they can nurture Juniors for the same. (retest)	Correlation Coefficient	.976	1.000
			Sig. (2-tailed)	.000	.
			N	30	30
60	Spearman's rho	Job- rotation facilities the advancement of employees (test)	Correlation Coefficient	1.000	.949
			Sig. (2-tailed)	.	.000
			N	30	30
		Job- rotation facilities the advancement of employees (retest)	Correlation Coefficient	.949	1.000
			Sig. (2-tailed)	.000	.
			N	30	30