Chapter 3

Research Methodology

3.1 Research Design

“Research design is the arrangement of conditions of collecting and analysing the data relevant to research purpose with economy in procedure”\(^1\).

Research design is a statement of problem. It includes the techniques to collect the information as well as the methods to collect and analyse the data. The arrangement of conditions which leads to preparation of research project is called research design. It is a plan to gather relevant data about research problem. Research design can be split into sampling design, observational design, statistical design, and operational design.

“Research design is a blueprint for conducting a research with full control over factors that may interfere with the validity of the findings”.\(^2\) The research design should be flexible, efficient, and economical which increases the data reliability, validity and facilitate minimum experimental error.

An efficient research design should be prepared before carrying out further operations as it shows the errors or flaws which can mislead results. Therefore, a great care should be taken while designing the research.
3.2 Review of Literature

Literature review is an essential part of Research Methodology. It is an in-depth study of past literature which is already been studied in a specific field. Review of Literature is a summarized form of current state of knowledge in a particular area or specific topic.\(^3\)

Review of literature is an essential task which brings clarity to research problem. Literature review is an integral part of research which makes valuable contribution in understanding the subject area better. It facilitates past literature in the area of study which broadens our knowledge about the methods and procedures that best fit in our study. The main function of review of literature is to clarify the research problem. It enables the readers to understand and broaden their vision to critical views of particular field.

The most relevant literature from the field of Performance Management System is cited below

Brian Kropp in his paper entitled “Is the Performance Management System Dead or Creating Zombies” aimed to study the reasons of inefficient Performance Management System and suggest adopting some strategies to increase the efficiency of the organizations. It has been found that 86% of the organizations have made changes to the existing system because most of the organizations are playing with the system and creating zombies who come back in new and horrible shape of Performance Management forms. The reason, he opined that two third of the high performing employees are generally not identified from the Performance Management System. The second fact which was revealed is that most of the organizations keep the employees asking on how they performed in past years and put them in fear state while they should align the past information to progress toward future accomplishments. This puts the perception of employees from fear to reward state. The system misidentifies the good
performers as they focus on past performance appraisal. He suggests that if companies form proper strategies, it can reap better results.\(^4\)

Stuart Hearn in her paper entitled “Why use an online Performance Management System” advised that Online Performance Management System should be used. Getting data from paper appraisal form is very complex. Each form is needed to pass through a preset process and need to be signature. An online system helps to do all the process in a touch only. There are many reasons like quality data, automated work, reviewing progress on daily basis etc. Generation Y also use everything online. Therefore, the study suggests that Online Performance Management System should be preferred in place of manual system.\(^5\)

Ms. Leena Toppo, Dr. (Mrs.) Twinkle Prusty in their paper entitled “From Performance Appraisal to Performance Management” stated that organizations have shifted from performance appraisal to Performance Management. The aim of the study was to differentiate between two systems. Performance Management removes the errors of Performance appraisal. Performance appraisal assesses the performance of individual only whereas it should evaluate plans for development also. Performance Management is a process of performance planning, performance managing, performance appraisal, performance feedback and performance counseling. Performance Management System ultimately aims to develop employees and teams which help to achieve organizational objectives.\(^6\)

Aki Pekuri1, Harri Haapasalo, Maila Herrala in their paper entitled “Productivity and Performance Management – Managerial Practices in the Construction Industry” showed that there is a major difference in theoretical framework and practical action. The study resulted that Finnish Construction Company was best in rate of productivity development and left many leading companies behind. It concluded that productivity is an inappropriate measure for identifying improvement targets and controlling the
activities. The study suggested the managers that they need to refine their practices to improve business performance in construction sector.7

Monika Roy in her paper entitled “Performance Management System: An effective strategy to evaluate employees” suggested to implement Performance Management System properly. It highlighted the dissatisfaction of employees regarding Performance Management System. Mostly employees were dissatisfied from Performance Management System of organisation. Improper implementation caused problems in an organisation. The study concluded that Performance Management System should include some strategies which help to evaluate the employees properly.8

Vivekanand and Abhishek Singhania, in their paper entitled “Role of Managers in Improving Performance” aimed to study the role of managers in improving employee’s performance, highlighted the problems faced by organisation in appraising individual's performance. The study sheds light on use of "three pronged strategies" where employees are classified in top performers, solid citizen, and low performers. Counsellor should help low performers; coach should help solid citizen and mentor for top performers.9

Arvind sudarshan in his paper entitled “Performance Appraisal System, A Survey of Organizational views” The ICFAI University Journal of Organizational Behavior” aimed to study the reason behind the dissatisfaction towards Performance Management System. It suggests that the most common problem is biasing. It is a big issue in the organisation. When 33 organisations were surveyed and asked about the problem behind dissatisfaction, they gave mixed answers. The study suggested reconsidering proper communication, feedback and transparency to resolve the issue.10
Sameer Sudhakar Pingley in his paper entitled “Performance Appraisal Metrics: 360 degree feedback” aimed to study the usefulness of 360 degree feedback. According to 360 degree, the employee’s information is gathered by various sources. The sources are self appraisal, manager’s appraisal, and colleagues or peer appraisal, customers, and team appraisal. The survey reveals that multiple feedbacks from different sources are more reliable. The study considered 360 degree feedback a trustworthy method of performance appraisal, which helps to create a helpful and open environment in the organisation.  

Rajshree Vyas in her paper entitled “Performance Management System in Banks: Practices and Effectiveness” The ICFAI Journal or organizational Behavior aimed to study the Performance Management System in Banks. He discussed about the implementation of Performance Management System and suggested that a lot of improvement is needed in banking sector. Private banking sector and public banking sector are compared and findings suggested using four components to be applied for further improvement of Performance Management System.  

Dr. Sadananda Prusty in his paper entitled “Performance Management System on Development of Human Resource a Study in NALCO” The ICFAI Journal of Organizational Behavior talked about the new concept to be added in the organisation. The aim of the paper was to study the response of employees about their Performance Management System. Executives and non-executives were satisfied with Performance Management System, but rest of employees gave mixed answers. Some few concepts were discussed like counselling, performance based training, review discussions, target setting and follow up training. The author opined that these concepts are very useful and should be started in the organisations.
Megha Oberoi and Paresh Rajgarhia in their paper “A company may have a world-class system -- but it's only effective if the managers who implement it are effective” aimed to study the role of managers in Performance Management System. They claimed that nearly 50,000 employees from 9 major cities in 21 global companies were surveyed and 53% employees felt that they were unsatisfied from Performance Management System. The study revealed that organizations install world class Performance Management System but ignore the people element. Managerial ability was investigated and found that 70% of the employees who gave best rating to their managers rated their Performance Management System very good and only 2% of the employees who gave low rating to their managers rated Performance Management System very good. The research with 22 companies cleared that good managers clearly communicates the performance standards, focus on employee strengths, aids in development, frequently meet to their employees about the progress. It was found that an efficient Performance Management System begins with goal setting, followed by continue feedback and appraisal. It links reward, compensation and foster teamwork, communication.

Dick Grote in his paper titled “Performance Appraisal: An ideal system, A perfect form” stated that 600 employees from Fortune 500 and similar organizations were asked about their Performance Management System. Ninety five percent of the people answered that it is a Formal Performance Management System. A perfect performance appraisal consist five stages. The stages are organizational competencies, job specific competencies, great appraisal form on key responsibilities, concentration on goal and enumeration of achievements and accomplishments. Performance appraisal helps in many important functions. It helps in maximum utilization of resources and makes it clear to all employees that they are accountable for the achievement of objectives.

Maya Townsend in her paper “Performance Management Myths” opined that there are many myths about the system and gave explanation about the facts against the myths. She claimed
that a successful Performance Management System take all aspect like managers, performers, peers and partners into consideration. The system must be flexible and adaptable with the changing situations. A good Performance Management System should correlate organizational and individual goals jointly. She said that the system works best when it is integrated to day to day work. A good system always focuses on teamwork. She opined that Performance Management System is an art that takes time to refine.\textsuperscript{16}

Ruth Mayhew in his paper titled “Characteristics of an Ideal Performance Management System” asserted that an accurate job description is a basic characteristic of Performance Management System; it consist an important function of job and qualification. Training methods help to determine the evaluation of employees and actions to be taken for counseling. The third characteristic is timely performance appraisal which helps to solve problems before it occurs. Positive outcomes and negative outcomes of employees are recognized accordingly. Employees are always motivated from compensation. An ideal Performance Management System includes certain raise in salary on particular effort, performance and productivity.\textsuperscript{17}

Subash Bhattacharya in his paper entitled “Current state of performance appraisal system in Organization in a Consumer Durable Electronic Industry” sheds light on the fact that most of the employees are not satisfied with the current PAS. The paper showed that increasing dissatisfaction among employees is the biggest reason for labor turnover. It suggested putting emphasis on procedural aspects while designing Performance Appraisal System.\textsuperscript{18}

Gryphon Sou in his paper entitled “An Examination of Performance Management System in Customs and Excise Service of Honkong Sar” aimed to provide a general overview of Performance Management System used in Custom and Excise department. It asserted that mixed system is used in Custom and Excise Service. It focuses on the need of multifunctional system. Multifunctional system is flexible and inexpensive if appraisal criteria are properly
chosen. This department follows Competency Management System. Mixed appraisal techniques are used to assess the performance according to its suitability. Five approaches namely Forced Distribution, BARS, Essay Method, Forced Choice Method and Graphic Rating Scales are used wherever it best fits. The study concluded that there are some loopholes in the system which needs to be studied in quantitative terms.¹⁹

Thomas in his paper entitled “Performance management best practices in best organizations” aims to describe the practices of Performance Management System of top organizations. It stated nine practices in an organisation. Employees were classified into three categories High performers, Most Admired, Low class. It concluded that different Performance Management trends should be set to handle the employees accordingly.²⁰

_Ruth Mayhew in his paper entitled “Ideas for Self Appraisals & Performance Evaluations”_ stated the strategy to use self appraisal and evaluation in small businesses, where it is used informally. He opined that informal self appraisal and evaluation frames a guideline for superior subordinate conversation about the performance. Secondly, he stated that small business might not have structured self appraisal and evaluation process but one to one coaching with a supervisor on some topic related to self appraisal and evaluation is a quite effective idea. Self- appraisal should be explained to employee before the evaluation period ends. Self appraisal should be written in a preset manner where the employees should understand the appraisal process properly. They should be trained in writing self-appraisal. The article focuses on applying self appraisal and evaluation in small and big organizations. Their focus, objectivity differs accordingly. There should be proper training on writing self appraisal forms.²¹

Book Review A. S Kohli, and T. Deb titled _Performance Management_, oxford higher education talks about the evolution of Performance Management from Performance Appraisal.
The book is segmented in four sections covering 12 chapters which give a broad insight about Performance Management System. It discusses the broad spectrum of Performance Management, Counseling, Performance Planning, Managing, Appraisal and Monitoring. It contains the prevailing scenario and challenges of Performance Management system. It also discusses the implementation of Performance Management System and its linkage to reward system. The book focuses on the role of human resource professionals and ethical issues in Performance Management System.22


Book Review Harward Business Essentials, titled “Performance Management: Measure and Improve the Effectiveness of Your Employees” adds up new areas that have come in Performance Management System in Indian and International corporate. The book covers 8 chapters. It talks about formulating effective goals and its alignment. It considers motivation as not-so-secret ingredient of high performance in which rewards, incentive system problems and motivational practices are being discussed. Formal performance appraisal is being discussed. The book contains the purpose and values of developing employee skill and careers. It talks about the innovative ways to handle C-level performers. The book has shown a new arena of Performance Management System and its applications.24
After studying the literature review thoroughly, it has been found that employees are not satisfied from Performance Management System. CPMS, Online PMS are being used in prevailing scenario. It is seen that role of manager is very important in improving the employee’s performance. Proper communication, feedback, counselling, performance based training, review discussions; target setting, follow up training and transparency are the factors which are suggested to help in resolving the issue.
3.3 Research Problem

The Research problem formulated is “Performance Management System in Cement Industry”. The idea has been developed only after studying the review of literature and conversation with the experts. The aim of the research is to study the reasons behind the dissatisfaction towards Performance Management System among employees of cement industry. The study focuses on the prevailing Performance Management System in cement industry with special reference to Ultratech Cement, JK Cement, Wonder Cement and Shree Cement which are chosen according to geographical area.

The study aims to:

a) Study the Performance Management System.

b) Impact of superior subordinate relationship

c) Participation of employee in performance appraisal

d) Staff development
3.4 Objectives of the Study

Each research is done with some intention. The purpose of this study is to get answers of some problems through using statistical tools and measures. The objectives of the study are given below:

1. To study the views of employees regarding Performance Management System.

2. To determine the factors desired by the employees to be included in the existing system.

3. To know whether superior-subordinate relationship affects the performance appraisal of an employee.

4. To find the relationship between Performance Management System and development of employees.

5. To consider the role of self-appraisal in Performance Management System.

3.5 Research Gap

Very few research studies have been conducted in this industry especially in Performance Management System. Hence, it is an attempt to fill the gap. It has been found that there are certain issues regarding Performance Management System in Cement Industry which are not being addressed. The present study is concerned to assess the Performance Management System in cement industry with special reference to Ultratech, JK Cement, Shree Cement, and Wonder Cement.
3.6 Relevance and Justification of the Study

Performance Management is a very important tool in an organization and gaining importance in practical sense. Organization claims having strong Performance Management System but after reading review of literature it has been found that most of the organizations fail to achieve employee satisfaction. After reading the review of literature, it has been found that employees are dissatisfied from the Performance Management System. They do not rely on the validity of the system which creates problems in employee retention. In the current scenario most of the organizations have done changes in their system. This is the need of the time to develop Performance Management System at national and international level due to new emerging trends. Therefore, the present study concerns to assess the Performance Management System and give suggestions for improvement if any.

3.7 Scope of the Study

The research study is descriptive and exploratory in nature. The study was aimed to assess the effectiveness of Performance Management System. The purpose is to study the level of Performance Management System and suggesting some improvements if necessary. It includes the study of four companies Ultratech, JK Cement, Shree Cement and Wonder Cement. The research used primary and secondary data.

Descriptive research includes different type of surveys and fact findings. It describes the characteristics of the population to be studied. The variables are uncontrolled in this method. The aim of descriptive research is to describe the things related to a specific topic. Exploratory research is used where the problem is not clearly stated. It gathers the information which helps in clarifying the problem and assisting hypothesis. It aids in research design as well as in data
collection. Exploratory research brings new insight to formulate a research problem and develop hypothesis. Therefore, it is called as Formulative research.

### 3.8 Hypotheses of the Study

Hypothesis is an important instrument in research. Hypothesis testing determines that the assumption is valid or not. According to Grodd and Hatt “A proposition, which can be tested to determine validity. A research hypothesis is a statement (predictive), which can be tested through statistical tools, that relates to an independent variable to some dependent variable.

H0: There is no significant difference between the views of employees regarding Performance Management System in cement industry in Rajasthan.

H0: There is no significant association between superior-subordinate relationship and employee’s performance appraisal.

H0: There is no significant association between Self Appraisal and effectiveness of Performance Management System.

H0: There is no significant association between Performance Management System and development of an employee.

### 3.9 Pilot Study

It is an exploratory investigation which guides for a larger study. It is a rehearsal of main study. A sample of 30 respondents was taken conveniently from all level of employees to test the questionnaire. Through this study, some of the variables were added and removed which were unanswerable by the respondents. Some questions were changed according to Likert Scale. Finally the research tool was reframed and restructured.
3.10 Tools used for Hypothesis Testing

Hypothesis Testing is a process to test the significance regarding parameters of the study. After interpreting the data, hypotheses have been tested with the help of given test below:

**Cronbach Alpha Reliability Test:** It is used to measure whether the data is reliable or not. It is a measure used for internal consistency or reliability of the data.\(^{25}\)

**Shapiro-Wilk Normality Test:** The test is used to check the normality of the data. Normality of the data means the data is normally distributed or not.\(^{26}\)

**Chi-Square for independence:** Chi-Square for independence test shows the association of two attributes.

**Chi-Square Goodness of fit:** Chi-Square Goodness of fit test explains how the assumed distribution data fit to observed data.

3.11 Sources and Methods of Data Collection

After defining the problem and framing the research design, data is collected through primary source and secondary source. Primary data is original, which is collected for the first time and original in nature.\(^{27}\) Secondary data is the data which is collected earlier by someone else or by some institution, company or agency with the use of statistical test. A structured questionnaire was prepared for employees of cement industry. Questionnaire and personal interviews were used as source of primary data collection. Secondary data was collected through websites, magazines, and other published records. It is inexpensive as well as time saving.
3.12 SAMPLE DESIGN

A group where researcher would like to study is called universe. Universe for the study was the employees of cement industry. The sample size is around 300 as necessary to get the facts through various employees who belong to the cement industry. A structured closed-end questionnaire is used. The convenience method of sampling is adopted. Convenience sampling means the researcher selects the sample according to his convenience. This is most simple and least expensive method. This method allows us to select the data in very little time as it is very time consuming method.

Sample Design

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<th>水泥</th>
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<tr>
<td>ULTRATECH</td>
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<tr>
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</tr>
<tr>
<td>SHREE CEMENT</td>
<td>65</td>
</tr>
<tr>
<td>WONDER CEMENT</td>
<td>42</td>
</tr>
</tbody>
</table>

3.13 Respondent Profile

Respondents are taken on the basis of gender as male and female. Respondents are further divided on age factor as 21 to 25 yrs., 26 to 30 yrs, 31 to 35 yrs., and above 35 yrs. Income is taken as below 20,000, 20,000 to 49,000, 50,000 to 99,999 and 1, 00,000 above. Respondents are segmented on the basis of designation like Engineer, Higher Authorities, Managers, Others. Further respondents are divided on the basis of experience as 0 to 3 yrs, 4 to 8 yrs, 9-14 yrs, above 15 years.
3.14 Variables and Parameters

The research is conducted on the basis of variables and parameters. A variable means, the value of which differs for different samples. Various parameters are identified on the basis of hypothesis.

**Variable are given below:**

- Systematic Performance Management System
- Satisfaction towards Performance Management System
- Business performance
- Superior-subordinate relationship
- Performance evaluation
- Personal relation
- Conflict
- Transparency
- Intervention
- Participation
- Performance Management System effectiveness
- Feedback
- Employee responsibility
- Employee skills
- Orientation
- Development Activities
3.15 Survey Instrument: Questionnaire

Questionnaires are designed to gather the information from employees of cement industry. The sample questionnaire is attached in appendix.

3.16 Data Analysis and Interpretation

After collecting the data, it is edited or scrutinized. Initially, the data which is collected through primary source is coded. Coding means the data is divided into different categories and then tabulated. Then data is graphically presented. Main hypothesis is tested through Chi-square goodness of fit and Chi-Square for independence.

3.17 Limitations

- The limitations faced during the research have to be considered along with the contribution of the study. Cement industry is a wide sector so it is difficult task to get exact results. The sample has considered only day shift employees. Night shift employees were not considered.
- Performance Management is an advance term of performance appraisal so it was little time consuming to make them understand the difference between Performance Appraisal and Performance Management. The employees who belong to same department were hesitant to give the information.
- The questionnaire included almost multiple-choice questions; therefore, proper thought may not be given to each option. Confidential information was not provided by the companies. Peer response may influence the respondent response and time factor was also a limitation.
• Limited time factor was also a constraint. Managers were busy in their work. Non-cooperation was a major problem. Employees belong to same department were reluctant to answer.
References


14. Oberoi, M., & Rajgarhia, P. “A company can have a world-class system in place -- but it's only as effective as the managers who implement it”. Retrieved from http://www.plushr.com/


24. Haward (2006) titled “Performance Management: Measure and Improve the Effectiveness of Your Employees” HBSP.

