Chapter – III
Research Methodology
CHAPTER 3
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3.1 STATEMENT OF THE PROBLEM/DESCRIPTION OF THE PROBLEM

In the research process the first step is to define the research problem for the study. The research problem is defined after going through the published research work done by other researchers on the same issue. After going through the literature review related to the study of health and safety standards in small and medium enterprises in India, it is found that most of the research studies is focusing on understanding, investigating and analyzing the actual meaning of health and safety standards in small and medium enterprises and effectiveness of health and safety standards in small and medium enterprises.

People working in factories where they have to handle fire, instruments and chemicals to a large extent are provided immense protection to prevent health hazards. Machines and other tools are regularly checked to ensure that they are safe to work with. Workplace safety in major concern in such places because getting exposed to these risky objects would definitely have damaging effects. Thus, they are properly equipped with lifesaving gear that offer substantial protection to them creating an environment that would be conducive for employees should be one of the most coveted goals of an organization.

You might have come across issues of violence and molestation of co-workers. Such incidents can mar the reputation of any organization. It’s almost impossible to work in an environment that is devoid of personal safety measures. Rules and regulations are implemented by the law for ensuring physical safety of workers which are adopted by companies to prevent any such incidents taking place.

Hazards are considered to be potentially dangerous substances or behaviours that can cause harm or injury to an employee. There are several hazards employees can be exposed to in the workplace. Health hazards can range from infectious diseases spread from one worker to another to poisonous chemicals that are not properly stored
and maintained. For example, some industries are exposed to dangerous gases such as carbon monoxide.

In current business scenario, health and safety standards in small and medium enterprises are also a widely accepted tool for necessary learning in the arena of competitive business. It is found that health and safety standards in small and medium enterprises help a lot to enhance the potential of employees. With respect to the process of health and safety standards in small and medium enterprises, it is a progression of one to one collaboration between an experienced management and operative level employees, who wants to improve their skills, access new perspective and above all reach maximum potentials.

There have been empirical studies outside India on health and safety standards in small and medium enterprises but organized study on the subject is not available in the Indian context. Recognising the need of the corporate sector and the industry, research scholar as part of PhD program want to study the present status of health and safety standards in small and medium enterprises in Indian corporate sector as well as significance of health and safety standards in small and medium enterprises in India, so that new possibilities of health and safety standards in small and medium enterprises could be explored in order to establish best practices. This will also help corporate industry in getting useful and practical insights to facilitate health and safety standards in small and medium enterprises. Hence, the problem statement of the present study can be stated as

*To understand the concept of health and safety standards in small and medium enterprises, analyse the perception of respondents and to find out the effectiveness of health and safety standards issues in small and medium enterprises in Haryana.*

This research study is basically exploratory as well as descriptive in nature. It focuses on investigating the actual status of the level of health and safety standards in small and medium enterprises in Haryana, and more specifically it intends to cover what health and safety standards in small and medium enterprises is, the objective and goals aimed to analysis health and safety standards in small and medium enterprises, who uses it, when, why and how.
It aims to study tools and technique used in health and safety standards in small and medium enterprises, identify the process adopted in health and safety standards in small and medium enterprises, how health and safety standards in small and medium enterprises is different in identify requisites and qualities needed for successful implementation of health and safety issues and finally to develop a model for health and safety standards in small and medium enterprises.

3.2 OBJECTIVES OF THE STUDY

❖ To study the legal and administrative provisions for health and safety standards in Industry.
❖ To study the implementation of health and safety standards in small and medium enterprises in Haryana.
❖ To study the impact of health and safety standards on employees productivity and enterprises performance.
❖ To study the relationship between health and safety standards compliance and industrial accidents.
❖ To suggest the measures for better compliance of health and safety standards in small and medium enterprises.

3.3 SIGNIFICANCE OF THE STUDY

Men instead of money will have to be accepted as the most valuable resources of any organization. The management has to recognized inevitability of developing human assets, knowledge, professional skills, experiences and creativity of their employees.

Safety at workplace is one of the basic needs of employees and deserves the highest priority from a responsible management. Unsafe working conditions result in injury to plant, equipment and employees. Invariably accidents arise from unsafe acts of individuals and/or unsafe conditions.

Man failure forms the central issue; to err is human and to prevent error is divine. This can be done by creating and inculcating interest in safety, carrying out fact finding in the event of any accident or unusual occurrence and instituting
corrective actions not only in the area where accident has occurred but also in other locations where similar conditions exist.

The study evaluates the employee's satisfaction towards health and safety standards in the enterprises or its impact on accidents which occurs in the enterprises. One major reason for undertaking research is to discover whether employees satisfy with such health and safety standards or no. What they think or to know their opinion about such standards.

- Employee satisfaction of regarding Health and safety Standards.
- Employee's awareness regarding available or existing Health and safety standards.

Health and safety standards is important since it creates a healthy atmosphere in the workplace, the work force stable and continue health in maintaining industrial peace thereby improving, productivity of the worker and reduce the accident ratio in the industry. This study help to know the various health and safety standards in micro, small and medium industries of Haryana and also study the impact of such standards on accidental ratio. It also evaluates various labour legislation regarding health and safety standards in Haryana.

Safety at work is one of the basic need of employees and also one of the primary obligations of a responsible management. Clearly, making provisions for safety at work has humanitarian, legal and economic justifications. At any rate, accidents arise from unplanned, unwanted, undesirable and sudden mishap which interrupts an activity and function. Everyone in the organization has a part to play increasing and maintaining safe and healthy working conditions. Management must formulate a proper policy of involving everyone so that an area that should be of concern to all does not become no-man's land. Accident prevention in industry is also a legal obligation and an economic proposition.

Employees are the most important resources of an organization. An employer has legal responsibilities to ensure the health and safety of its employees and other on the work site. A safe and healthy workplace has low risks of injuries of damage to property and low incidents of illness, injury and disability in its workforce.
Understanding the importance of safety and health in workplace is important for employees as well as for employers. Whether you work in a hazardous environment or in a comparatively safer zone, workplace safety is important to prevent mishaps. Since you are spending most of your time at your work place, it must be safe so that no threat to health is posed. Thus, health and safety of employee are major concerns of an organization.

Understanding the importance of safety at workplace should be the concern of the management. Certain norms are established that an individual should know to ensure self safety. There should be arrangement for first aid and health care services as well. Frequency of accidents taking place due to negligence in safety measures are executed properly, and then cost incurred in recovery could also be eliminated because chances of mishaps are considerably reduced.

3.4 HYPOTHESES TO BE TESTED

The following hypothesis is formed in the research study:

H$_1$: There is no implementation of health and safety standards in small and medium enterprises.

H$_2$: There is no significant impact of health and safety standards on employee's productivity and enterprises performance.

H$_3$: There is no significant relationship between health and safety standards compliance and industrial accidents.

3.5 RESEARCH DESIGN

The researcher in a systematic, orderly and scientific way made a survey of various respondents, from different organizations, industries, using structured questionnaire and subsequently interviewed them. A well structured questionnaire, covering all facets, keeping in view the objectives outlined above, was used. Responses were recorded, interacting with Owner, Manager, operative and supervisory personnel. Opportunity was availed to meet them in their organizations. The selected industries are based at Haryana located in the industrial areas.

The respondents were selected from the top, middle and operating levels of hierarchy of small & medium enterprise. The questionnaire was administered to the
respondents of industries located in district of Rohtak, Bahadurgarh, Jind, Gurgaon, Rewari, Faridabad, and Panipat of Haryana. The questionnaire was given to 300 respondents at different level of 40 SME manufacturing units operating in the state of Haryana. The SME manufacturing units were identified on the basis of non-probabilistic convenience sampling. The SME manufacturing units were chosen irrespective of the type of industry, that is, the sample constituted the sports good unit, automobile industries, fireworks units, engineering works units, steel services works unit, hosiery units, and handloom units. During editing stage of the responses, it was found that some of the questions in the questionnaire were incomplete and in some cases, there was no response and thus way not included in the study and finally only 36 manufacturing units in which 252 respondents were retained for the purpose of analysis. Personal interview conducted by the researcher were also analyzed. The reliability of questionnaire responses was checked by using Chronbach test that was found at .905. Research methodology used in the present study is as under:

3.5.1 Scope of the Study

The research study is based on the data collected from survey by using questionnaire and personal contact with owner, HR manager, personnel staff for those health and safety standards are used in small and medium enterprises in Haryana. The research analysis (qualitative as well as quantitative) is done on primary and secondary data for the examination of different aspects of health and safety standards issues in small and medium enterprises in Haryana.

3.5.2 Selection of the Respondents

The primary data in the research study is collected with the help of questionnaire, survey, and email from mentioned HR fraternity. Detailed study of 5-10 organizations from varied sectors in Haryana will be conducted who have the history of successful implementation of health and safety standards in small and medium enterprises.
3.5.3 Universe and Survey Population

The universe of the research titled "A Study of Health and Safety Standards in Small and Medium Enterprises in Haryana" is aggregate of all top level, middle level and operative level employees working in sports goods units, automobile industries, fireworks unit, engineering works units, steel services works units, hosiery units, hand tools and handloom units different SME of Haryana.

3.5.4 Sample Design and Sample Size

The sampling units form the basis of actual sampling procedure. It is that which actually chosen by the sampling process. In the present study owners, managers, supervisors and operative level employees are considered for getting the response.

Sample size refers to the number of elements included in the study. After the population has been defined, the sampling frame established and specific sampling type selected, conceivably another important consideration is sample size determination. Appropriateness of sample size is quite complex for large enough sample for any researcher's objective may turn out to be too large for the amount of time, money and personnel requirement. So a trade-off has to be evolved between the required information and cost and resources has to strike off. So while specifying sample size, the factors such as the number of units to be included in the sample in which neither so few are selected as to render the risk of sampling error intolerably large, nor too many units are included which may raise the cost of the study to make it inefficient, must be weighed properly. To determine the adequate sample size a decisional approach has been considered. Any process of sample selection requires (a) specification of the error that can be tolerated (b) A specification confidence coefficient (c) an estimate of the standard deviation.

(i) Sampling method: The multistage stratified sampling and judgemental sampling method is used in the research study.

(ii) Sample size: In the research study the sample size of 252 respondents of 36 various small and medium enterprises of Haryana working at different level such as owners, managers, supervisors and operative level employees have
been interviewed to elicit their views on health and safety standards issues in small and medium enterprises.

3.5.5 Pilot Testing

Actual data collection was preceded by a pilot survey. The pilots was carried out with a sample size of 50 respondents spread across with a view to clarifying questionnaire structure holistically and avoid any interpretation problems. Some teething problems were encountered during the data collection. Suggestions and comments were invited from the respondents. This enabled me to develop an insight to bring about required modifications in the overall configuration or taxonomy of the questionnaire by incorporating suggestions and observations. This also helped me in improving the quality and texture of the questionnaire to ensure smooth data collection.

3.5.6 Data Collection Method

The methods used to collect information about a situation, phenomenon, issue or group of people can be classified as: Primary Data Sources and Secondary Data Sources. The purpose of collecting information, the type of information being collected, the resources available, your skill in the use of particular of method of data collection and the socioeconomic-demographic characteristics of your study population ascertain the choice of a particular method of collecting data. Each method has its own advantages and disadvantages and each is appropriate for certain situations. The choice of a particular method for collecting data is important in itself for ensuring the quality of the information. No method of data collection will guarantee 100 per cent accurate information. The quality of information banks on several methodological, situational and respondent-related factors and ability as a researcher lies in either controlling or minimizing the effect of these factors in the process of data collection. The construction of a research instrument is the most important aspect of any research endeavour as it determines the nature and quality of the information. This is the input of the study and the output is entirely dependent upon it. A research instrument must reflect the study objectives.

Primary data

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Interviewing, Observation and the use of questionnaire are the three main methods classified under primary sources. Achieving best results warrants collecting authentic and accurate data irrespective of basic study research design. A formal list of questions is termed as questionnaire. Questioning as the name imply, is distinguished by the fact that the data are collecting by asking questions from the people who are thought to have the desired information. Questions may be asked in person or in writing. When data are collected by observation, researchers ask no questions. Instead they keep track of the objects or the actions in which they are interested. No matter what research design is used, the necessary data are collected by one or both methods. The primary data are collected afresh and for the first time, and thus happens to be original by nature. The primary data for the present study has been collected from the respondents from different small and medium enterprises/industries through a structure questionnaire.

Secondary Data

The data collected by persons or agencies for purposes other than solving the problem at hand are known as secondary data. In addition to this the secondary data was also collected from the official website of ministry concerned with small and medium enterprises, and records of HSIIDC. 4-Point likert scale was used for rating the statement of questionnaire. The secondary data offers the greatest advantage of economy in terms of time and cost effectiveness. Any researcher may obtain information about published record compiled by someone else without bothering to printing data collection forms, hiring and deploying field workers throughout the field area and editing and tabulating the results. Finding information that exactly fits the needs of the projects at hand and being sure that data are sufficiently accurate are the two areas must be addressed before making use of secondary data.

3.5.6 Data Analysis and Methods.

As Data means raw information collected from sundry sources. This raw information needs filtrations in order to convert in to relevant information having been compiled, edited and coded i.e. it has to pass through a process of analysis and has to be interpreted accordingly before their meaning and implications are
understood. Various statistical techniques are to be used for testing the hypothesis and drawing the inferences and conclusions about the relationships.

### 3.6 STATISTICS TOOLS

The present study had been analyzed by using various statistical tools like Frequency Distribution, Descriptive statistics (Mean, Standard deviation, Skewness, Kurtosis), Cross Tab & Chi-square with gender and position, one way ANOVA for the number of employees. The results and analysis had been shown with the help of tables. For analyzing the questionnaire, simple as well as cross tabulation had been used. In the present study, in order to apply various methodological tools, SPSS 21 was meticulously used.

**Software Used:** SPSS 21, MS-Word, MS-Excel

### 3.7 LIMITATION OF THE STUDY

The present study would be conducted by an individual scholar and therefore, it would be completed under certain constraints in terms of availability of time, financial resources, universe and sample of the proposed study.

It is important to highlight the limitations of a work especially in case of a research. The limitations help us to understand and appreciate the work in proper perspective.

'Sample' is only a sample; it can never be 'universe'. This truth, in fact is the real cause of the limitations in all studies based on sampling techniques. The "uncontrollable factors", also contribute positively towards the number of limitations and some of them are listed below:

1. No primary data collected through the sample survey are perfectly free from biases and inaccuracies on one count or other. The results of the present study are based on the opinions and the experiences of the respondents. There are always possibilities of individual biasness and result of the study look unreliable on that basis. However, in some cases biasness cannot be ruled out due to human nature.
2. There may be a drop error i.e., the respondents who are willing as well as able to respond may not be contacted.

3. There may be a go error i.e. the respondents who are unwilling as unable to respond may be included in the sample.

4. The present study is a study of sample. Alternatively, the complete universe would have been studied. This has not been done because of the two reasons. First, it was not possible to study the entire universe with the limited resources and time available at hand. Secondly, it is well established fact that the study of universe and representative sample would provide similar results. It is in this background that a sample study was opted. It is hoped that the results obtained would be appropriate for the strata as well as the universe.