Chapter - II

RESEARCH DESIGN

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2.1 INTRODUCTION

Research is based on scientific findings and development of theories based on effective and authentic sources. Karl Pearson has rightly observed that, 'There is no shortcut to the truly... no way to gain knowledge of the universe except through truth gateway of scientific method.' Pearson has further observed that, 'the scientific method is one and same in all branches and that method is the method of all logically trained minds. the unity of all sciences consists alone in its method, not in its material; the man who classifies facts of any kind whatsoever, who sees their mutual relation and describes their sequences, is applying the scientific method and is a man of science.'

The study of HR problems in the SSI units of Maharashtra is also a subject of scientific equity and it requires systematic methodology which has been discussed in this chapter. Because without methodology no research work can be neatly conducted. Hence in this chapter descriptive research design will be suitably illustrated. Important stages will be discussed. 100 SSI Units will be orally concerned with 10 questions related to HRD. Further primary and secondary sources of data collection will be used.

In the encyclopedia of social sciences Slesinger & Stephenson have observed that, research requires manipulation of sources and the use of
facts for building theories. Seligman has pointed that, Social sciences may thus be defined as those mental or cultural sciences which deal with the activities of the individuals as a member of group. On this background it would be interesting to study the research design developed for this work.

There are two types of research problems theoretical and applied. The present work is related to small scale industries and it falls under applied work. It has been observed that, the obvious function of research is to add new knowledge to the existing store, but its power for cleansing our minds of clichés and removing the rubbish is a cumulative process. It is also a ejective process, especially in the social sciences. Understanding can be not only by gains in knowledge but also by discarding outworn assumptions. Further it has been rightly noted that, Research is an important pre-requisite for a dynamic social order Society has marched on to its present form with the help of constant research and investigation. As far as man's inquisition has been able to go, so far has his society progressed. The society in Maharashtra can progress after solving HR problems of Small Scale Industries in better manner.

Industries are huge medium and small they are urban centered and rural based. It is true that, the problem of heterogeneity is sought to be solved by proper stratification and classification of social phenomena. The SSI units in Maharashtra will be surveyed in proportionate manner. 10 Small Scale Industries from every district will be surveyed. However the number will not go more than three hundred.

Research in social sciences has to go a long way in India. If fact, systematic efforts in social investigations started only after independence
and more particularly after the establishment of Indian Council of Social Sciences Research in 1969. Commerce research in not exception to this phenomena. There are various reports available on SSI units which can be examined here.

Merton has observed that, research brings forth new social relations, resolves ambiguities and enhances comprehension of social interaction. The commerce and management research is also solving many complicated problems and trying to bring new facts to light understand socio-economic complications in a neat manner.

2.2 MANAGEMENT & HR RESEARCH

The study of HR problems in SSI units can be conducted not only in commerce, but also in management perspective. The HR in the new age have been recognized as most stimulant factor which is inspiring and motivating. The overall awareness is increasing due to changing business environment in the post globalization era because only quality products are demanded by the new global consumers. Hence HR training has become vital for SSI units also.

In HR new training methods as well as time management, stress management and different methods of quality audit are also added. The rating of SSI units can be improved and what type of training they impart for their staff. The ISO 9000 certificates are issued to them when they undergo a rigorous method of training. This can be possible when training is imparted to them systematically stage by stage.

Management is a science of understanding people, their problems and solutions to them. Human resources being a significant factor in any
production process is also included in studies and research in management science. In any industry both capitals as well as human resources play a significant role. We have to understand effectivity of human resources in all the three types of industries e.g. big, medium and small. In this work focus has been mainly on HR problems in small scale industries.

Human Resources Management is an art of knowing what you want to do and then observing that they do it in the best and cheapest way to secure maximum results with the minimum of efforts with a view to secure maximum prosperity and happiness for both employer and employee and give the best possible service to the society. It concerned with creating the conditions and relationship which bring about the full utilization of all resources of an organization. Inadequacies of management have been among the most important factors for the delay and inefficiency in the implementing of projects and under utilization of capacity.

In small scale industries both efficiency and utilization of capacity are important aspects to improve productivity. We have to take care regarding human resource development problems in small scale industries in a systematic manner. Both production and distribution of units produced by small scale industries are related to human beings and they are consumed by rural people. Hence human resource problems are very critical as well as significant in small scale industries. However these have not been seriously evaluated in a systematic manner.

HR research has begun after steady development of human resource development as a science. Lean Henderson has observed that, HR research is based on latest and current facts, but there are many limitations. It is related to commerce and management market.
research is undergoing many changes and we have to look ahead to develop new strategies. HR has to develop some strategic decisions. Lain Handerson has pointed that, most strategic decisions will differ from operational ones in that they will involve more uncertainty and they will primarily be concerned with the organization as a whole, or at least a significant part of it a division or strategic business unit.11

SSI requires new strategies to develop. It is true that, the HRM function should be a partner with senior and line managers in strategy execution. The HRM strategy has to be internally consistent and must support the overall corporate strategy.12

HR research is thus strategic management research. Michael Armstrong rightly observed that, research is concerned with establishing what is, and from this predicting what will be. It does not decide what ought to be; that is for human beings interpreting the lessons from research in their own context. Research is about the conception and testing of ideas.13 Here the effect of HR practices on Small Scale Industries has been testified. There are some characteristics of good research project. Phillips and Pugh have noted following three important aspects of HR research.

1. It is based on open system of thought which requires continually testing, review and criticism of other ideas and willingness to hazard new ideas.

2. The researcher must always be prepared to examine data critically and to request the evidence behind conclusions drawn by others.
3. The Researcher should always try to generalize the research, but within stated limits. This means attempting to extract understanding from the situation and to apply it to as many other situations as possible.\textsuperscript{14}

The SSI units in Maharashtra are undergoing many difficulties after globalization and this situation has been understood in this research work. The positive approach is very important aspect in HR research. About such approach it has been observed that, positivism is the belief that researchers should focus on facts, look for causality and fundamental laws, reduce phenomena to their simplest elements, formulate hypotheses and then test them. Researchers are objective analysts.\textsuperscript{15} Hence in this work SSI units have been examined by analyzing the role of HR.

Now in this connection the present research problem can be crystallized below.

1. The present research is related to improvement of strategic management process of small scale industries. Arora has observed that, the strategic management process is a way for businesses to build strategies that help the company respond quickly to new challenges. This dynamic process helps organizations find new and more efficient ways to do business.\textsuperscript{16} SSI are doing their business in the systematic manner by facing dynamic challenges and their efficiency can be improved by enforcing strategic management.

2. It is true that, performing a situation analysis, self-evaluation and competitor analysis both internal and external, both micro-environmental and macro-environmental.\textsuperscript{17} In this work SSI's role will be examined on the basis of this three grounds.
3. Further the scholars have highlighted that in any strategic management it should be mentioned that in any strategic management process, particularly in those taking place in dynamic environments, situations change and strategic plans requires modification. Research has to suggest these modifications.

In this connection has correctly pointed that, one of the key findings of the strategy to HRM. Dr. Ulrich has made it related to relevance and significance of HRM. His first recommendation was that, HRM should become a partner is senior and the line managers in the strategy execution.

It would be interesting to define the term strategy is usually associated with long term decisions and is distinguished from short term tactics or operations. A new long term strategy will be developed in this research work and critical study of SSI units will be made on the basis of strict findings of research. Which will be useful for good health of these units. Measuring the effectiveness of the organizational strategy, it's extremely important to conduct a SWOT analysis to figure out the strengths, weaknesses, opportunities and threats of the entity in questions. The strength weakness analysis of small scale industries in Maharashtra will help to look into new opportunities which can be explored by evolving new human resource strategies. The present research work will certainly the effective to provide a new line of action to the small scale units in Maharashtra. Because this work will be conducted in the long term direction of the SSI units. The scope of the SSI units has been defined on the basis of organizational activities. Marching the organizational activities to the business environment is a challenging field. By doing so
all SSI resources will be properly used and new addition to knowledge regarding SSI units in Maharashtra and HR strategies will be recorded.

2.3 HYPOTHESIS

Every research work requires hypothesis for testifying its results. Hypothesis is essential for building research work. In the scientific investigation there is need to formulate hypothesis after the selection and delimitation of the problem. The hypothesis is a tentative solution of a problem. The research activities are planned to verify the hypothesis and not to find out the solution of the problem or to seek an answer of a question.\textsuperscript{22} John W. Best has defined hypothesis as it is a skewed guess or inference that is formulated and provisionally adopted to explain observed facts or conditions and to guide in further investigation.\textsuperscript{23} Here such facts can help to explore the problems.

According to Greighton, it is a tentative supposition or provisional guess which seems to explain the situation under observation.\textsuperscript{24} On this background the various points of hypothesis of this problem can be noted below.

1. SSI units in Maharashtra lack a great deal HR support

2. The SSI sick units can be improved both in quantity and quality by developing HR strategies.

3. The HR can improve the health of small scale units by the adoption of both own HR wing or outside consultancy services

4. Quality improvement can be possible through HR by adopting new tools and techniques for getting ISO 9000 certificates.
5. New HR model can be suitably developed by experiments and observations to improve potentials of SSI.

2.4 DESCRIPTIVE RESEARCH DESIGN

Descriptive design is useful when the course of study we have to describe certain units and their state of conditions.

- SSI units are changing in a faster manner.

- The structure, working and functions of SSI units can be described by observations.

- The researcher being a teacher of commerce is a participant observer.

- The present working methods, training services can be described by visiting these units.

Hence all these factors are responsible for using the descriptive design properly.

About the importance descriptive design Sandhu and Singh have observed that, the approach is mostly directed towards identifying the various characteristics of the research problem and to create observations conducive to further research. The present work is related to descriptive design. It has been rightly stated that”Descriptive studies are the ones that aim at describing accurately the characteristics of a group, community or a group of people. A researcher may be interested in studying the people of a community, their age composition, sex composition, caste wise distribution, occupational distribution and so
The descriptive studies require authentic and valuable sources which can describe facts about the time, space and period of the problems concerned.

There are many reports available on SSI on national and international level. It has been stated that “It is understandable that when one does not know anything at all about a problem, he must attempt to understand it in a general way before beginning to make specific the various aspects of the subject. They chose to describe what they thought to be important and interesting unconcerned with any rigid rules of scientific proof. Even such reports had their importance, for the development of SSI in Maharashtra.”

Descriptive studies often provide a jumping pad for the study of new areas in commerce and management. Freud remarked that “The true beginning of scientific activity consists in describing phenomenon and then in proceeding to group, clarify and correlate them.” The study of SSI can help to develop new HR practices. It is true that “It may not be very useful to conceive of descriptive research only a phase on the evolutionary continuum of researches. This is so, firstly because a piece of descriptive research may be of important scientific value in itself, although it cannot be generalized to apply to other situations. It can provide information which is of value in policy formulation and secondly, because the notion of stage assumes that we have knowledge about the various stages in the supposed continuum.” The role of HR units can be illustrated in this design by adoption of this method.
About the use and application of use of descriptive design Sandhu and Singh have observed that, descriptivedesign of research is becoming very popular these days and is extensively followed by researchers to explore new areas of investigation.  

There is a need to avoid bias. It is true that “The procedure to be used in descriptive study must be carefully planned since here the aim is to obtain complete and accurate information. The research design for these studies must make a much greater provision for protection against bias. Because of the amount of work involved in descriptive studies concerned with economy in the course of research is extremely important. Consideration of economy and protection against bias permeate every stage of the research process. ”

The bias can be avoided by making serious efforts. It has been observed that SSI are product of the social environment and training can expose SSI to improve themselves to face new global competitive environment. It has been further observed that “The first step in descriptive study is to define the question that is to be answered. Unless the questions are formulated with sufficient precision to ensure relevance of the data collected to the questions raised, the study will be fruitless. It is necessary to formally define the concepts entering into the question and also to indicate how the concept is to be measured. Considerations of economy would need to be entertained at the stage of specifying the research questions. This restricts the area of the study of bounds of manageability.”
Here the following questions have been set:

1. Whether the role of HR in SSI development is rightly understood by earlier scholars?

2. Has evaluation of HR been made justifiably?

3. Is it objective and balanced?

### 2.5 IMPORTANT STAGES

In the research process there are five important stages which can be stated as below-

1. Selection of the research problem - the researcher has to select very appropriate and unexplored research problem. According to Sandhu and Singh the problem must take talk off changed economic process and cultural institutions.\(^{33}\) Here the study is being conducted about post globalization period and its effect on SSI and HR practices.

2. Generalization of Problem - It has been observed that, research emphases the development of generalization, principles of theories that will be helpful in predicting future occurrences.\(^{34}\) Here HR problems of SSI units have been studied on general level regarding Maharashtra as a whole.

3. Survey of SSI units - Research involves gathering new data from primary or firsthand sources or using existing data for a new purpose.\(^{35}\) Here sample of 300 SSI units will be recorded.

4. Observation method - here HR problem will be studied by following observations. The researcher being engaged in SSI units he is a
participant observer. About observation method Rathod has observed that, the observing eye catches many things which are sighed, but attention is focused on data that are pertinent to the given study.\(^{36}\)

5. Analysis of Data - The collected data required critical analysis. It has been pointed that, at this point in the research project, having utilized one or more of the many data collection procedures the researcher has collected his data.\(^{37}\)

Tables and graphs of survey material will be prepared and analysis will be made after the processing of the data. Thus all these five stages have been carefully planned in this work. In order to analyze the data, it is usually necessary to first manipulate or handle the raw data in some manner so as to render them amendable to analysis. This is what, meant by the general term data processing.\(^{38}\)

### 2.6 METHODS OF DATA COLLECTION

The above methods of data collection are related to each other. They cannot be treated in isolation and they require a frame of enquiry. Both primary and secondary sources are related to each other and they can be used to support the theme. The idea of collecting these sources depends on how they are utilized and developed as well as explained for finding facts. The SSI units require a serious treatment based on authentic data.

Data is vast and varied and it is available at various places. Regardless of the type of data collection or the form in which the data exist, they will not automatically indicate whether the hypotheses is supported to refuted, or give the answers to the research question or solutions to the research problem. It is true that “After the problem has been formulated
specifically enough to indicate what data would be required, the methods by which data can be obtained must be selected. Tools for collecting the information must be devised if no suitable ones already exist. Each of the various methods of data collection - observation, interview, questionnaire etc. has its peculiar advantages and limitations. The researcher would have to consider the nature of the problem, the scope of the study, the nature of respondents, type of information needed, the degree of accuracy needed etc. and in view of these balancing the gains and losses should select one or more methods of data collection.” 39

It has been observed that “In many descriptive studies, the researcher wants to make statements about some specific subjects. However, it is rarely necessary to study all the people.” 40 Among these people a selected sample helps to explore the problem. Critical insight is required for analyzing available data. It has been observed that, content analysis as a research technique for the objective systematic and quantitative description of the manifest content of communication.41 Content received after survey and content appearing in various reports can be competed and examined for making SWOT analysis in this work.

2.7 PRIMARY AND SECONDARY SOURCES

There are two types of sources-Primary and secondary. Kothari has noted that difference between primary and secondary sources must be made to bring more useful approach. Record is a primary source and in this category letters, contracts, content records, census of population, diary, autobiography etc. are included. In the secondary sources based on primary sources, reports, written on these events also include in secondary sources.42 Here SSI reports, SICOM annual reports, and
Maharashtra state Survey economic report will be used.

The researcher is conducting a survey of 300 respondents and this will be primary source which he is handling on the basis of field work, and published reports, yearbooks, status books, status report will also be studied here. Santosh Dastane publishes Maharashtra Year book every year and reports are available from 2001 to 2012. In the recent report it has been pointed that, Maharashtra has tradition of 100 years of industrial development. Earlier, these industries were cent rated in Mumbai, Pune and Nashik and now they are expanding in Aurangabad and Nagpur also. Further in this report status of small scale industries in the state has been given in a chart and 30 centers in various districts of Maharashtra have been listed. Thus all these facts in such reports will be examined here.

2.8 SURVEY METHOD

The survey method used here is based on mixed questionnaire. Both close and open ended questions have been used here to explore facts. The sample of survey has been selected on the basis of random sample survey. This random sample has been collected from the SSI units in Maharashtra in general and backward region of Khandesh and Marathwada in particular.

Survey is an important method in data collection. Saltish Jahoda and Cook have narrated experience survey is an important stage in social research. It has been observed that, some people in the course of their day to day experience, by virtue of their peculiar placement as officials, processionals, etc are in the position to observe the effects of different policy actions and to relate these to problems of human welfare.
The SSI units are run by entrepreneurs. However there are managers, officers and users, who are related to these units. Survey of all these related persons can help to conduct social survey.

Efforts are made to select informants so as to ensure a representation of different types of experience. Variations in the points of view also need to be given adequate representation in the sample of respondents selected. Here sample from all Maharashtra will be collected to represent SSI units of all parts of state. Further about care and causation of social interview method. It has been noted that, it is of course, necessary to have come preliminary idea of the important issues in the general area of the subject matter. In the systematic interviewing of the informants, it is necessary to maintain a considerable degree of flexibility. Thus every care will be taken for making the questionnaire full proof and flexible to accommodate all aspects of survey.

2.9 SUMMARY

Management is an interesting subject as it deals with setting, seeking and reaching objectives. Management can be defined as working with people to determine, interpret and achieve organizational objectives by performing the functions of planning, organizing, staffing, leading and controlling. Management provides a way to reach on organizational and personal objectives. The need of management in organizational and personal objectives. The need of management in an organization is nicely expressed by Lawrence. The basic function of management is to attain objectives through action taken by the members of the organization. Since dynamics are the forces which produce the action and motion, it follows that the dynamics of management are those forces which produce the action which is required forces of management do not happen.
The study of SSI units will be conducted on these lines. It is interesting to know that this topic is not merely theoretical but it is having practical base. Hence survey research method and descriptive design has been aptly used here. In any kind of management research grass root analysis of problem is very significant and it has to correlated both theory and practice.

In this chapter thus research design has been explained. The problem was pinpointed with specific reference to HR research. Methods of data collection were explained, primary & secondary sources were underline. Tools of survey methods were explained. This chapter has mainly focused on tools and techniques of research. Small scale industries being subject matter of the problem. Their status is significant issue which is tackled here in HR perspectives.

The study of small scale industries units in Maharashtra is a complex phenomenon and requires careful and critical analysis. After establishment of Maharashtra in 1960, industrial development has received proper boost. In Maharashtra the small scale industries include textile, food products, engineering & mechanical products, chemical industries. Out of 611 textile industries 104 units in Maharashtra. Further out of total handlooms of county 37% are located in Maharashtra.

In 1960 at the time of establishment of State there were industries such as paper, glass material, cement, small machines were dominant in 1991. The picture change and about the status of SSI units in 2012 sufficient line thrown in the next chapter.
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