CHAPTER - I
RESEARCH METHODOLOGY AND TOOLS OF RESEARCH.

PROLOGUE

The present chapter has been devoted to research methodology and tools of research adopted for the development of the present study. Here, the researcher has discussed the practical aspects of research methodology used for the present study. It discusses all about methodology, techniques, research design and processing and analysis of data. The researcher has developed upon the theoretical narration of research and various concepts related to research.

The following discussion reveals the philosophical and practical aspects of research methodology and tools of research:

1.1 DETERMINATION OF RESEARCH PROBLEM.

Any social or economic research may have two objectives—academic objectives and utilitarian objectives. An urge for
knowledge is the basic ingredient of academic research, while research for the sake of research too has found favour with some academicians. There was a time when academic research was very well regarded. But the trend has achieved a tremendous change, and research is now expected to be more utility-oriented than merely academic-oriented. This trend is evident in many recent reports of researchers, which are directly linked with policy formulation.

Of course, in many cases, it has become a fashion to engage in research, even when it does not serve any practical purpose. The scope of any such research is very limited, for it has limited potential for the achievement of organisational objectives. A research which does not serve a practical purpose is largely pointless as far as a manager is concerned. Research in management is basically meant for a specific purpose; and that is why management researches are, by and large, result-oriented.

Research provides an analytical framework for the subject matter of investigation. It establishes the relationship between the different variables, especially the relationship of the dependent variables with the independent variables. The cause-effect relationship between different variables can also be
identified, leading to valuable observations, generalisations, and conclusions. Inductions and deductions are also possible in a systematic research. Induction is the process of inferring a general law from particular instances, i.e., a generalisation is arrived at on the basis of the observation or result of particular instances. Deduction, on the other hand, is a way of making a particular inference from a generalisation. In the deductive method, specific conclusions are derived from generalisations, while a generalisation is made from particular situations in the inductive method. In the present study, the researcher has used both the methods of study i.e., induction and deduction.

Empirical studies have a great potential, for they lead to inductions and deductions. Thus, research enables one to develop theories and principles, on the one hand, and to arrive at generalisations, on the other. Both are aids to problem-solving. As research is based on observations and empirical evidences, it improves knowledge and understanding, as-well-as decision-making skill and ability. Gathering primary data for analytical purposes or using secondary data for first-hand investigation should be involved in research. It stimulates the process of understanding, on the one hand and deepens the insight, on the other. Obviously, managerial efficiency increases.
Moreover, a systematic research involves various formalities and procedures, and hence the decision-maker gets sufficient time for postponing decisions if he desires to do so in certain circumstances. On such occasions, research can be a blessing in disguise. *

To generalise, managerial research can have the following general objectives:

- Decision-making objective;
- Project objective;
- Policy objective;
- Controlling objective;
- Economic and business environmental objective;
- Market objective;
- Product development objective;
- Innovation objective;
- Customer satisfaction objective;
- Profit objective;
- Promotional objective; and
- Corporate image objective.

The researcher is of the view that obviously, managerial research has unlimited scope in a business organisation. It has already been pointed out that decision-making is considerably influenced by research in the relevant area, while the project objective stands for the role played by research in project identification, feasibility and project implementation. There is a corporate policy for any organisation, which is linked with the corporate objectives and organisational philosophy, culture, and climate. As research findings influence corporate policy, research has conspicuous role in shaping organisational philosophy, culture and climate. Managerial research, as a matter of fact, cannot be separated from managerial decisions and business policy.

Moreover, research is bound to throw some light on risk and uncertainty, which in turn underscore the role of research in policy formulation and decision-making. The element of personal judgement plays a less critical role until in executive is able to rely almost completely on a standard formula or set of rules when arriving at routine decisions.

Research facilitates the formulation of a standard formula, enabling the executive to rely moderately on personal judgement, especially at the middle and lower levels. Decision-
making calls for alternative courses of action; and in identifying alternatives managerial research plays an important role. Every manager is expected to be a controller, and very management function has an element of controlling function in it, though controlling is not separated as a function in many cases. There was a time when controlling was the main function of the manager.*

1.2 REVIEW OF LITERATURE AND RESEARCH WORK ALREADY DONE.

From time to time certain researchers and management dons have conducted studies on organisational change and development. R.S. Dwivedi (1979) conducted a study to diagnose the prevailing climate in a leading printing press in India. Chattopadhyay S. (1992) studied performance with people, Bhopal BHEL, HRD department which provided an excellent analysis of organizational climate suggesting a shift from a reductive (negative) CAD (Control, Affiliation, and Dependency) to an augmentative (positive) AIE (Achievement, Influence and Extension) model.

In this research study, the researcher has taken help of inductive as well as deductive methods of study. The researcher has refereed to certain researches already done on various aspects of human resource management. Udai Pareek, in his research article “Action Research in Organizations: Some Issues”, published in Managing Organizational Change, Oxford and IBH Publishing Company, New Delhi, 1982 states that the concept of action research and organizational change are close to that of organizational development. He has also pointed out some basic differences between the two.

Kurt Lewin* was the pioneer in identifying three phases of change - unfreezing, changing and re-freezing. The unfreezing stage stimulates people to feel and recognize the need for change. Lippitt, Watson and Westley® provide three factors which should be considered while introducing change: internal distribution of power, internal mobilization of energy and internal communication. Dalton’s* model of induced organization change highlights four major phases and four specific sub-processes of learning. It shows that the learning

process for managers is highly complex, and involves much more than acquiring new cognitive or intellectual skills from a classroom lecture.

Besides, the researcher has carefully studied many standard books on Organizational Behaviour and Industrial Psychology by great management scientists like, Keith Davis, Dale S. Beach, Edwin B. Flippo, Blair, Bloom and Katz and Herzberg. The researcher has also reviewed the works of many Indian management thinkers like, R.S. Dwivedi, Uday Pareek, D. Sinha, K.G. Saideen, Arun Monappa, H.C. Ganguli, K.K. Anand and K. Chaudhary. The writings of these authors gave the researcher insight into the subject. She expresses her sincere thanks to these authorities whose works she consulted and made prolific use in the treatment of the subject.

1.3 AIMS AND OBJECTIVES OF THE STUDY.

The principal objectives of the study is to examine the process of organizational change and development programmes of Ranbaxy Laboratories Limited. The other equally important issue of the study is to assess the need for examining the OD
approach of the organisation under study. In fact, there is great importance of OD in improving organizational effectiveness and control in organizational setting. Some of the other goals for which the study has been undertaken, are as follows:

- To explain OC, OD and related concepts and the objectives and goals of OC and OD.
- To study the concepts of organizational climate, organizational health, organizational effectiveness and the approaches to OC and OD.
- To examine the strategic model of OC and resistance to organisational change and levels of change in OD and also the pre-requisites to OD and steps in OD.
- To describe and elaborate upon various interventions of OD and assess the interventions of OD empirically.
- To evaluate the OC and OD programmes in present day organisation with special reference to Ranbaxy Laboratories Limited.
- Finally, to submit comprehensive report after observations, analysis of data followed by suitable recommendations to the management of Ranbaxy Laboratories Limited to introduce OC and OD programmes pointing out the pitfalls of the OD work in the organisation.
1.4 DETERMINATION OF RESEARCH DESIGN.

The present research project is a case study of Ranbaxy Laboratories Ltd., and hence it is a combination of several research designs namely: exploratory, descriptive, experimental, empirical as-well-as library research. The formidable problem that follows the task of defining the research problem is the preparation of the design of the research project, popularly known as the "research design". Decisions regarding what, where, when, how much, by what means concerning an inquiry or a research study constitute a research design. "A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure."

In fact, the research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. As such, the design includes and outline of what the researcher will do from writing the hypothesis and its operational implications to

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the final analysis of data. More explicitly, the design decisions happen to be in respect of:

- What is the study about?
- Why is the study being made?
- Where will the study be carried out?
- What type of data is required?
- Where can the required data be found?
- What periods of time will the study include?
- What will be the sample design?
- What techniques of data collection will be used?
- How will the data be analysed?
- In what style will the report be prepared?

Keeping in view the above stated design decisions, one may split the overall research design into the following parts:

- the sampling design which deals with the method of selecting items to be observed for the given study;
- the observational design which relates to the conditions under which the observations are to be made;
- the statistical design which concerns with the question of how many items are to be observed and how the information and data gathered are to be analysed; and
the operational design which deals with the techniques by which the procedures specified in the sampling, statistical and observational designs can be carried out.

From what has been stated above, we can state the important features of a research design as under:

- It is a plan that specifies the sources and types of information relevant to the research problem.
- It is a strategy specifying which approach will be used for gathering and analysing the data.
- It also includes the time and cost budgets since most studies are done under these two constraints.

In brief, in the opinion of the researcher, design must, at least, contain:

- a clear statement of the research problem,
- procedures and techniques to be used for gathering information;
- the population to be studied; and
- methods to be used in processing and analysing data.
NEED FOR RESEARCH DESIGN

The researcher, in this project did not depend upon a particular research design. He chose several designs for the enlargement of the present study. Research design is needed because it facilitates the smooth sailing of the various research operations, thereby making research as efficient as possible yielding maximal information with minimal expenditure of effort, time and money.

Just as for better, economical and attractive construction of a house, we need a blueprint (or what is commonly called the map of the house) well thought out and prepared by an expert architect, similarly we need a research design or a plan in advance of data collection and analysis for our research project.

In the opinion of the researcher, the research design stands for advance planning of the methods to be adopted for collecting the relevant data and the techniques to be used in their analysis, keeping in view the objective of the research and the availability of staff, time and money. Preparation of the research design should be done with great care as any error in it may upset the entire project. Research design, in fact, has a
great bearing on the reliability of the results arrived at and as such constitutes the firm foundation of the entire edifice of the research work.

Even then the need for a well thought out research design is at times not realised by many. The importance which this problem deserves is not given to it. As a result many researches do not serve the purpose for which they are undertaken. In fact, they may even give misleading conclusions. Thoughtlessness in designing the research project may result in rendering the research exercise futile. It is, therefore, imperative that an efficient and appropriate design must be prepared before starting research operations.

The design helps the researcher to organise his idea in a form whereby it will be possible for him to look for flaw and inadequacies. Such a design can even be given to others for their comments and critical evaluation. In the absence of such a course of action, it will be difficult for the critic to provide a comprehensive review of the proposed study.\(^6\)

1.5 COLLECTION OF PRIMARY AND SECONDARY DATA.

The present study, being a mixture of various research designs, makes use of both the primary as-well-as secondary data. The researcher has strived hard to gather as for as possible reliable and most appropriate information for the purpose of development of thesis and for the purpose of analysis of information and their interpretation. Facts, information or premises, systematically collected and formally presented for the purpose of drawing inferences, may be called data. Statistical information collected, compiled and presented for the purpose of establishing appropriate relationships between variables may also be included in the data which, whether statistically processed or not, play a very vital role in the research and analysis of management problems, as they do in any other area of investigation. This is the rationale of data collection in research.

The researcher has used secondary information more than the primary information. Both primary and secondary data may be used for the purpose of analysis. The first-hand information bearing on any research, which has been collected
by the researcher or his agent or assistant may be called primary data. These are original observations collected for the first time. Such data facilitate original investigations and observations, leading to useful and valuable results. The results, which are based on primary data, are bound to be empirical and of great utility value. The primary data, collected and compiled, without any bias, are more reliable and dependable, and are accurate and apt for specified investigations. Once the primary data have been put to use, the original character of these data disappears, and they become secondary. The data which are primary at one time point are, therefore, bound to become secondary at a later stage.

The secondary data, on the other hand, are based on second-hand information. The data which have already been collected, compiled and presented earlier by any agency may be used for the purpose of investigation. Such data may be called secondary data. Population census reports, national sample survey reports, economic and statistical reports, data banks of any professional association or trade organisation - these are examples of secondary data. There are many printed and published reports of various government and private agencies, say, the Reserve Bank of India, the All-India Management
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Association, etc., which can be obtained and made use of by any researcher.

The researcher is of the opinion that data collection is the process of obtaining valuable and reliable information for purposes of research. As the secondary data consist of data from secondary sources, they may be obtained either personally or by post and may be presented and interpreted. The actual task of the researcher is, therefore, to collect the primary data, either by census survey or by sample survey. The latter is the most popular method of collecting primary data.

However, there are certain occasions when direct personal observation is not possible; and when the whims and fancies of the observer may affect the accuracy of the result. In such cases, it would be better for the researcher to be satisfied with either the indirect oral examination method or the schedules and questionnaires method. Persons who are supposed to have a correct knowledge of the actual situation, or people may be tapped and the relevant information collected, which is called indirect oral investigation. This method may not be very fruitful on, many occasions, for, at least on some occasions, the informants are highly biased. The schedules and
given population. The term sampling refers to the investigation of a part of the whole population or universe, while sampling distribution of all the possible sample results of the whole population distribution; and a sample is a representative of the whole population.

According to Cavlin F. Schmidt, “a statistical population or universe may consist of attributes, qualities, or behaviour of the people, the behaviour of inanimate objects such as dice or cities or city blocks, households or dwelling structures, the day’s output of a factory, or in the opinions of the electorate of an entire nation.

1.6 USE OF STATISTICAL TOOLS AND DEVICES.

The researcher made extensive use of discussion style and holding face to face interviews to acquire most reliable information from the officials of the Ranbaxy Laboratories Ltd. The questionnaires and interviews are devised to obtain information about an individual’s behaviours (especially, past and private), his perceptions, beliefs, feelings, motivations and anticipations or future plans. In these methods, the utmost
stress is laid on his verbal reports for information about the stimuli or experience to which he has been exposed. Of course, the researcher may not accept such reports at face value. He may interpret them in the context of other knowledge about the individual or in terms of some behavioural science theory. Attempts may also be made to infer certain aspects of his behaviour which has not at all been reported by him.

The researcher holds that the self-report provided by the individual is a function of his willingness and ability to report. It is assumed that in certain situations, the motivation or pressure impinging upon the individual prevents him to provide a candid self-report. For example, in certain situations, his truthful self-report may cause embarrassment, humiliation or degradation or show him in unfavourable light. The individual may also distort his verbal report to obtain prestige or create a certain social effect.

In addition to his willingness to truthful report the events, the individual may also be unable to do so. He may not be aware of many of his own beliefs or motivations. Further, self-diagnosis forms a prerequisite to self-report, especially in the context of complex social attitudes. For example, some individuals are unable to systematically and adequately report
their attitude towards their husband or wife. Notwithstanding this, the researcher can easily obtain useful information about an individual's own account of feelings towards a behavioural event which can otherwise be accomplished only by more time consuming methods.

Now the researcher defines the questionnaire. It refers to a device for securing answers to questions by using a form which the respondent fills in himself. Thus, an individual, who has filled in a job application, tends to have an experience of answering a questionnaire. The term "schedule" relates to a set of question which are asked and filled in by an interviewer in a face-to-face situation with another individual. In both cases, the wording of the questions is the same for all respondents. The term "interview guide" refers to a list of points or topics which an interviewer is required to cover during the interview. The "interview guide" provides enough latitude to the interviewer can ask the questions. Notwithstanding this divergence, these three research methods involve a set of questions which are related to the research problem.

The researcher has also resorted to an "interview" technique in the present study. It is basically a process of social interaction. It refers to a face-to-face interpersonal role
situation in which one individual (the interviewer) asks another individual (the respondent) questions designed to obtain answers relevant to the research problem. Thus, in work situations, an advocate may interview his client to represent or defend him or her and a physician may base his diagnosis upon the medical interview as well as the examinations. Likewise, the journalist, the personnel officer, the social worker and all other persons may depend substantially upon their as interviewers as well as upon those other skills unique to their professions.

1.7 ANALYSIS, INTERPRETATION AND REPORT WRITING.

The researcher comes to the most important aspect of the methodology which is connected with the report writing which is the end product of the research. It is most proper to examine the research report here since research is one of the main topics of discussion in this thesis. A research study culminates in report writing, which is a tool for communicating the various aspects of the study, viz., the problem or topic investigated, the

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method employed to investigate, its objectives, scope and limitation, etc.

However, before writing the report, proper report planning is essential. Report planning should take into account such details as defining the problem, the purpose of the report, tracking the material collected, identifying the utility of the report, and so on. The ability to write effective reports is one of the most useful skills a researcher can acquire. In this connection, Brown observes: "We say it as simply as we possibly can, and that is, that a report is a communication from someone to another who wants to use that information. The report may be elaborately formal, it may be a letter, or in a great many organisations, it is simply a memorandum; but it is always planned for use".

The usefulness of a report is the basic requisite of any research report. For example, a study that deals with market segmentation for a company should report on the exact distinction between customer groups and their needs for the purpose of sub-dividing its market into specific subsets of customers. Customers are likely to differ in various respects. The report identifies areas for further researcher, if any, and for fresh hypothesis. Analysis and inferences, suggestions and
observations, footnotes and appendices etc., should also find a place in the report which should include specific recommendations for the course of action to be adopted. All the necessary informational materials should be presented in the most appropriate manner. It should be purposeful and should take into account the reader and his reading habits and interests.

Researcher is of the opinion that in the normal course, the report writer has to consider such questions as: Who will read the report? In what way is the report going to be useful? What are the questions to be answered? How much information is needed? What is the best way of presenting the information? And so on. An effective report stimulates interpersonal relationships in an organisation, since it suggests solutions to problem areas.

In this connection, Arthur D. Little observes: “In short, remember that the reader is a human being, not a corporation. He is not omniscient; if he were, he wouldn’t have asked for your help. Remember also that he doesn’t want to devote his whole career to deciphering what you have to say. The project you are reporting on is undoubtedly only one of the many that require his attention.
For the sake of convenience, reports may be classified either on the basis of approach or on the basis of the nature of presentation. On the basis of approach a report may be:

- Journalistic report;
- Business report and memorandum;
- Project reports;
- Dissertation;
- Enquiry reports; and
- Thesis.

On the basis of the nature of presentation, reports may be classified as:

- Inductive reports;
- Deductive reports;
- Step-by-step reports; and
- Time-sequence reports.

Reports prepared by journalists for publication in the media may be journalistic reports. These reports have news and information values. A business report or memorandum may be defined as report for business communication from one departmental head to another, one functional area to another,
or even from top to bottom in the organisational structure on any specific aspect of day-to-day business activity. These are observational reports which facilitate business decisions.

The researcher has given his detailed report after the analysis of the data and information received from the organisation. He is hopeful that the report will get welcome response from the academicians, researchers, professionals, and teachers of management and commerce. These suggestions have been given at the end of the study with relevant conclusions.

The behavioral science researcher visualises facts as closely intertwined and associated with each other rather than as isolated phenomena. Indeed, the facts are not intelligible unless they are related to other facts and form a part of the larger system.

Thus, the present chapter is more descriptive, narrative and informative as it deals with the methodology of the research which is usually adopted by almost all the researchers in their exploratory and empirical researches especially in the

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behavioural science researches. The present study is a behavioural science study so it has used more psychological approaches.