

CHAPTER: – TWO

Research Problem

2.1. Defining the Problem

A research problem, in general, refers to some difficulty which a researcher experiences in the context of either a theoretical or practical situation and wants to obtain a solution for the same. That a problem clearly stated is a problem half solved. A proper definition of research problem will enable the researcher to be on the track whereas an ill-defined problem may create hurdles. Defining the research problem is crucial and very hard part of a research process. It is crucial because, the problem identified will provide us with the topic of the designed research and the objective of the research. It is the most difficult and hard part of the research study because; there is a cause and effect issue. It is commonly difficult to distinguish effect of a problem from the cause of the problem. The researcher should be certain that the problem identified is a cause but not an effect. A proper definition of research problem will enable the researcher to find answers to question such as

- What kind of data and information are relevant and needed to be studied?
- What relationship is to be explored among variables?
- What technique has to be used to collect and analyze data? And so forth

Therefore, defining a research problem properly is a prerequisite for any study and a very important step. Even it is more essential than its solution.

Usually we say that a research problem does exist if the following conditions are met with:

- (i) There must be an individual or a group which has some difficulty or the problem.
- (ii) There must be some objective(s) to be attained at. If one wants nothing, one cannot have a problem.
- (iii) There must be alternative means (or the courses of action) for obtaining the objective(s) one wishes to attain. This means that there must be *at least two means available to a* researcher for if he has no choice of means, he cannot have a problem.
- (iv) There must remain some doubt in the mind of a researcher with regard to the selection of alternatives. This means that research must answer the question concerning the relative efficiency of the possible alternatives.
- (v) There must be some environment(s) to which the difficulty pertains.

The research problem undertaken for study must be carefully selected. The task is a difficult one, although it may not appear to be so. Help may be taken from a research guide in this connection but problem must spring from the researcher's mind like a plant springing from its own seed. Thus, a research guide can at the most only help a researcher choose a subject.

The following points may be observed by a researcher in selecting a research problem or a subject for research:

- a) Subject which is overdone should not be normally chosen, for it will be a difficult task to throw any new light in such a case.
- b) Controversial subject should not become the choice of an average researcher.
- c) Too narrow or too vague problems should be avoided.
- d) The subject selected for research should be familiar and feasible so that the related research material or sources of research are within one's reach.
- e) The importance of the subject, the qualifications and the training of a researcher, the costs involved, and the time factor are few other criteria that must also be considered in selecting a problem.

- f) The selection of a problem must be preceded by a preliminary study. This may not be necessary when the problem requires the conduct of a research closely similar to one that has already been done.

Techniques involved in defining a problem

The research problem should be defined in a systematic manner. The technique involved in defining a research problem has a number of steps, which should be undertaken one after another.

- i. *Statement of problem in a general way:* First of all the problem should be stated in a broad general way keeping with some practical, scientific and intellectual interest. For that purpose the researcher must immerse himself completely in the subject matter, which he wishes to pose a problem.

In social science it is advisable to do some field observation and / or preliminary survey (pilot survey). Then the researcher can himself state the problem or can seek guidance of the subject expert.

- ii. *Understanding the nature of the problem:* the next step is to understand clearly the nature and the origin of the problem. The best way of understanding the problem is:

- To discuss with those who first raised the problem in order to know how the problem originally came in view.
- To discuss it with those who have a good knowledge of the problem concerned or similar other problem.

- iii. *Survey the available literature.* All available literature concerning the problem must be studied and examined before defining research problem. This means the researcher must be familiar with:

- The relevant theory in the area. Theory has got the following role in overall research studies
 - Theory provides patterns of the interpretation of data
 - It links on study with the other
 - It supplies frameworks within which concepts and variables acquire special significance.
 - It allows us interpret the large meaning of our findings for ourselves and others
- Reports and records and other literature in the concerned area
- Review research works undertaken on related problem. This is important especially to learn what data and other material have been used and are available for operational purpose

Knowledge about these all will help the researcher to narrow the problem down himself.

Generally, survey literature will enable researcher to know

- If there are certain gap in the theory
 - Whether the existing theory applicable to the problem and consistent with each other.
 - Whether the findings of the research do or do not follow a pattern consistent with the theoretical expectation.
 - Study on a related problem is also useful for indicating the type of difficulty that may be encountered in the present study.
- iv. *Developing ideas through discussion:* Discussion on a problem produces useful information. Various new ideas can be discovered and developed through it. The researcher should discuss his problem with colleagues and others who have enough experience in the same area. Such practice is called ‘**experience survey**’

Peoples with rich experience are in a position to show the researcher different aspects of his proposed study and their advice and comments are usually of high values.

v. *Rephrasing the research problem (reformulation of the problem)*: Finally the researcher at this stage should be able to reformulate the problem that has been stated in broad and general way in to working proposition. The researcher should narrow and break down the problem into its components variables and relationship. That is, problem should be expressed as:

a) *a relationship between two or more variable*

b) *the problem should be stated either in question form or hypothesis form*

Question form is appropriate mostly when the research is descriptive in nature. What important is that when a researcher state the problem in question form the formulated problem should be free from ambiguity and the relationship among variables should be clearly expressed

E.g.,

- *Does a relationship exist between income of university students and score on their exams?*
- *Is there a relationship between employees' age and their productivity?*
- *Does a relationship exist between the men circumcision and sensitivity to HIV virus?*

In above examples, the study's main elements are identified in reasonably clear fashion.

The following points must be considered while redefining the research problem

- Technical terms and words or phrased, with special meanings used in the statement of the problem, should be clearly defined.
- Basic assumptions or postulates (if any) relating to the research problem should be clearly defined.
- A straightforward statements of the value of the investigation, i.e., the criteria for the selection of the problem) should be provided
- The suitability of the time period and the sources of data available must also be considered by the researcher in defining the problem.
- The scope of the investigation or the limits within which the problem is to be studied must be mentioned explicitly in defining the research problem.

Evaluation of the problem

Before the final decision is made on the investigation of the problem, the feasibility of the problem has to be tested with regard to personal suitability of the researcher and social value of the problem. In short, the research problem should be evaluated in terms of the following criteria.

Is the problem researchable?

Some problems cannot be effectively solved through the process of research. Particularly, research cannot provide answers to philosophical and ethical questions that do not show the relationship existing between two or more variable vividly. Therefore, the problem must be stated in workable research question that can be answered empirically.

Is the problem new?

As much as possible, the research problem needs to be new. One should not target his investigation to the problem that had already been thoroughly investigated by other researchers. To be safe from such duplication, the researcher has to go through the record of previous studies in a given field. However, there are times where by a problem that has been investigated in the past could be worthy of study. A researcher may repeat a study when he wants to verify its conclusion or to extend the validity of its findings in situation entirely different from the previous one.

Is the problem significant?

The question of significance of the problem usually relates to what a researcher hopes to accomplish in a particular study. What is his purpose in undertaking to solve the particular problem he has chosen? What

new knowledge does he hopes to add to the sum total of what is known? And what value is this knowledge likely to have? When these all questions are answered clearly by the researcher, the problem should be considered for investigation.

The researcher should show that the study is likely to fill the gaps in the existing Knowledge to help resolve some of the inconsistencies in previous research or to help in the reinterpretation of the known facts. The findings should become a basis for theory generalization, or principles and should lead to new problems further research.

Is the problem feasible?

In addition to the above-stipulated points, the feasibility of the research problem should also be examined from the point of view of the researcher's personal aspects as stated hereunder.

Researcher Competence: The problem should be in an area in which the researcher qualified and competent. Before indulging into investigation of the problem, the researcher has to make sure that he is well acquainted with the existing theories, concepts and laws related to the problem. He must also possess the necessary Skills and competence that may be needed to develop, administer, and interpret the necessary data gathering tools. What is more, he needs to consider whether he has the necessary knowledge of research design and statistical procedure that may be required to carry out the research through its completion.

Interest and enthusiasm: The researcher has to make sure that the problem really interests him. He must also be truly enthusiastic about the problem. If the problem is chosen properly by observing these points, the research will not be boring; rather it will be love's labor.

Financial consideration: Research is an expensive endeavor, which requires a great deal of money to invest. In this regard, the researcher should ascertain whether he has necessary financial resources to carry on the investigation of the selected problem. An estimate of the expenditure involved in the data gathering equipment, printing, test material, travel, and clerical assistance to be specified. Furthermore, the possible sources of fund must be consulted ahead of time.

Time requirement: Research should be undertaken within a given scope of time, which was allocated, with careful analysis of the prevailing situation. Each and every activity of a research process requires time. Particularly, it is worthwhile to plan for the time that will be needed for the development and administration of tools, processing and analysis of data, and writing of the research report. While allocating time for research project, care should be taken for the researcher's other engagement or commitments, the respondents' accessibility, the expiry data of the required data.

Administrative consideration: The researcher has to pay to all administration matters that are necessary to bring his study to its full administrative matters that are necessary to bring his study to its full completion. In this regard the researcher should consider the kinds of data equipment, specialized personnel. And administrative facilities that are needed to complete the study successfully. The researcher must assure whether the pertinent data are available and accessible to him.

Sources of Research problem

There are some important sources of problems, which are helpful to a researcher for selecting a problem. These include the following

Professional experience: One of the sources of problem for beginner researcher is his own experience as a professional in a given field. The day-to-day observation of the incidences is the working place and out of the working environment, which includes the experience of his colleagues, their attitude, home environment, social-economic status and motivation level provide rich sources of the problem.

Inference from theory. A research problem can be derived from a critical look into different theories. In other words application of some general principles involved in different theories to specific situation makes an important starting point of research.

Technological and social changes: Technological and social change directly or indirectly exerts an influence in the function of an organization. All such change brings about new problems for research. For instance, change may affect policy issues in which case they may arouse interest in investigating new policies among the policy analysts or other concerned personalities.

Hypothesis

The word hypothesis is a compound of two words, “hypo” and “thesis”. Hypo means, under or below and thesis means a reasoned theory or rational viewpoint. Thus, hypothesis would mean a theory, which is not fully reasoned.

Hypotheses are a set of suggested tentative solution of a research problem, which can be or may not be a real solution.

Research hypothesis differs from research question in that, hypothesis both indicate the question in testable form and predict the nature of the answer. Hypothesis proposes a relationship between two or more variables. In other words, hypothesis is a theory entertained in order to study the facts and examine the validity of the theory. The task of the researcher in this case will be to establish and test such hypothesis.

Establishing a hypothesis should follow rules like:

- The variables must be clearly specified and measurable by some techniques we know
- The relationship between them must be stated precisely.

Importance of Hypothesis

A well-grounded hypothesis provides the following advantages

- Represents specific objective, which determine the nature of the data needed to test the proposition
- Offer basis for selecting the sample, the research procedure, and the statistical analysis needed.
- Keeps the study restricted in scope thereby preventing it from becoming too broad
- Sets a framework for reporting the conclusion of the study.

Criteria of usable hypotheses

Hypotheses can be useful if and only if they are carefully formulated. There are several criteria used to evaluate hypothesis. These include the following.

- Hypotheses should be clearly and precisely formulated
- Hypotheses should be formulated in such way that, they can be tested or verified (should be testable)
- Hypothesis should state explicitly the expected relationship between variables
- Hypotheses should be limited in scope. Hypotheses of global significance are not usable as they are not specific and simple for testing and drawing conclusions.
- Hypotheses should be consistent with the known facts. In other words hypotheses should be grounded in a well-established facts, theories or laws.
- Hypotheses should be stated as much as possible in simple terms. The simple statement helps to gain the following advantages
 - i. It becomes easily understandable to others (readers)
 - ii. It become easily testable

iii. It provides a basis for a clear and easily comprehended report at the completion of the study.

- The hypotheses selected should be amendable to testing with in a reasonable time.

Some examples of Hypothesis.

Hypothesis: 1

Political participation

Increases

With education



Variable one (dependent variable.)

relationship

Variable two (independent variable)

Hypothesis: 2.

Alienation

increase with

poverty



Variable one

Relation

Variable two

The result of the hypothesis test is the substance of our conclusion and expressed as generalization.