

WHAT IS A HYPOTHESIS?

Ordinarily, when one talks about hypothesis, one simply means a mere assumption or some supposition to be proved or disproved. But for a researcher hypothesis is a formal question that he intends to resolve. Thus a hypothesis may be defined as a proposition or a set of proposition set forth as an explanation for the occurrence of some specified group of phenomena either asserted merely as a provisional conjecture to guide some investigation or accepted as highly probable in the light of established facts. Quite often a research hypothesis is a predictive statement, capable of being tested by scientific methods, that relates an independent variable to some dependent variable. For example, consider statements like the following ones:

“Students who receive counselling will show a greater increase in creativity than students not receiving counselling” Or

“the automobile *A* is performing as well as automobile *B*.”

These are hypotheses capable of being objectively verified and tested. Thus, we may conclude that a hypothesis states what we are looking for and it is a proposition which can be put to a test to determine its validity.

Characteristics of hypothesis: Hypothesis must possess the following characteristics:

- (i) Hypothesis should be clear and precise. If the hypothesis is not clear and precise, the inferences drawn on its basis cannot be taken as reliable.
- (ii) Hypothesis should be capable of being tested. In a swamp of untestable hypotheses, many a time the research programmes have bogged down. Some prior study may be done by researcher in order to make hypothesis a testable one. A hypothesis "is testable if other deductions can be made from it which, in turn, can be confirmed or disproved by observation."¹
- (iii) Hypothesis should state relationship between variables, if it happens to be a relational hypothesis.
- (iv) Hypothesis should be limited in scope and must be specific. A researcher must remember that narrower hypotheses are generally more testable and he should develop such hypotheses.
- (v) Hypothesis should be stated as far as possible in most simple terms so that the same is easily understandable by all concerned. But one must remember that simplicity of hypothesis has nothing to do with its significance.
- (vi) Hypothesis should be consistent with most known facts i.e., it must be consistent with a substantial body of established facts. In other words, it should be one which judges accept as being the most likely.
- (vii) Hypothesis should be amenable to testing within a reasonable time. One should not use even an excellent hypothesis, if the same cannot be tested in reasonable time for one cannot spend a life-time collecting data to test it.
- (viii) Hypothesis must explain the facts that gave rise to the need for explanation. This means that by using the hypothesis plus other known and accepted generalizations, one should be able to deduce the original problem condition. Thus hypothesis must actually explain what it claims to explain; it should have empirical reference.

CASE STUDY METHOD

Meaning: The case study method is a very popular form of qualitative analysis and involves a careful and complete observation of a social unit, be that unit a person, a family, an institution, a cultural group or even the entire community. It is a method of study in depth rather than breadth. The case study places more emphasis on the full analysis of a limited number of events or conditions and their interrelations. The case study deals with the processes that take place and their interrelationship. Thus, case study is essentially an intensive investigation of the particular unit under consideration. The object of the case study method is to locate the factors that account for the behaviour-patterns of the given unit as an integrated totality.

According to H. Odum, "The case study method is a technique by which individual factor whether it be an institution or just an episode in the life of an individual or a group is analysed in its relationship to any other in the group."⁵ Thus, a fairly exhaustive study of a person (as to what he does and has done, what he thinks he does and had done and what he expects to do and says he ought to do) or group is called a life or case history. Burgess has used the words "the social microscope" for the case study method."⁶ Pauline V. Young describes case study as "a comprehensive study of a social unit be that unit a person, a group, a social institution, a district or a community."⁷ In brief, we can say that case study method is a form of qualitative analysis where in careful and complete observation of an individual or a situation or an institution is done; efforts are made to study each and every aspect of the concerning unit in minute details and then from case data generalisations and inferences are drawn.

Characteristics: The important characteristics of the case study method are as under:

1. Under this method the researcher can take one single social unit or more of such units for his study purpose; he may even take a situation to study the same comprehensively.
2. Here the selected unit is studied intensively i.e., it is studied in minute details. Generally, the study extends over a long period of time to ascertain the natural history of the unit so as to obtain enough information for drawing correct inferences.

3. In the context of this method we make complete study of the social unit covering all facets. Through this method we try to understand the complex of factors that are operative within a social unit as an integrated totality.
4. Under this method the approach happens to be qualitative and not quantitative. Mere quantitative information is not collected. Every possible effort is made to collect information concerning all aspects of life. As such, case study deepens our perception and gives us a clear insight into life. For instance, under this method we not only study how many crimes a man has done but shall peep into the factors that forced him to commit crimes when we are making a case study of a man as a criminal. The objective of the study may be to suggest ways to reform the criminal.
5. In respect of the case study method an effort is made to know the mutual inter-relationship of causal factors.
6. Under case study method the behaviour pattern of the concerning unit is studied directly and not by an indirect and abstract approach.
7. Case study method results in fruitful hypotheses along with the data which may be helpful in testing them, and thus it enables the generalised knowledge to get richer and richer. In its absence, generalised social science may get handicapped.

Evolution and scope: The case study method is a widely used systematic field research technique in sociology these days. The credit for introducing this method to the field of social investigation goes to Frederic Le Play who used it as a hand-aid to statistics in his studies of family budgets. Herbert Spencer was the first to use case material in his comparative study of different cultures. Dr. William Healy resorted to this method in his study of juvenile delinquency, and considered it as a better method over and above the mere use of statistical data. Similarly, anthropologists, historians, novelists and dramatists have used this method concerning problems pertaining to their areas of interests. Even management experts use case study methods for getting clues to several management problems. In brief, case study method is being used in several disciplines. Not only this, its use is increasing day by day.

Assumptions: The case study method is based on several assumptions. The important assumptions may be listed as follows:

- (i) The assumption of uniformity in the basic human nature in spite of the fact that human behaviour may vary according to situations.
- (ii) The assumption of studying the natural history of the unit concerned.
- (iii) The assumption of comprehensive study of the unit concerned.

Major phases involved: Major phases involved in case study are as follows:

- (i) Recognition and determination of the status of the phenomenon to be investigated or the unit of attention.
- (ii) Collection of data, examination and history of the given phenomenon.
- (iii) Diagnosis and identification of causal factors as a basis for remedial or developmental treatment.
- (iv) Application of remedial measures i.e., treatment and therapy (this phase is often characterised as case work).

- (v) Follow-up programme to determine effectiveness of the treatment applied.

Advantages: There are several advantages of the case study method that follow from the various characteristics outlined above. Mention may be made here of the important advantages.

- (i) Being an exhaustive study of a social unit, the case study method enables us to understand fully the behaviour pattern of the concerned unit. In the words of Charles Horton Cooley, "case study deepens our perception and gives us a clearer insight into life.... It gets at behaviour directly and not by an indirect and abstract approach."
- (ii) Through case study a researcher can obtain a real and enlightened record of personal experiences which would reveal man's inner strivings, tensions and motivations that drive him to action along with the forces that direct him to adopt a certain pattern of behaviour.
- (iii) This method enables the researcher to trace out the natural history of the social unit and its relationship with the social factors and the forces involved in its surrounding environment.
- (iv) It helps in formulating relevant hypotheses along with the data which may be helpful in testing them. Case studies, thus, enable the generalised knowledge to get richer and richer.
- (v) The method facilitates intensive study of social units which is generally not possible if we use either the observation method or the method of collecting information through schedules. This is the reason why case study method is being frequently used, particularly in social researches.
- (vi) Information collected under the case study method helps a lot to the researcher in the task of constructing the appropriate questionnaire or schedule for the said task requires thorough knowledge of the concerning universe.
- (vii) The researcher can use one or more of the several research methods under the case study method depending upon the prevalent circumstances. In other words, the use of different methods such as depth interviews, questionnaires, documents, study reports of individuals, letters, and the like is possible under case study method.
- (viii) Case study method has proved beneficial in determining the nature of units to be studied along with the nature of the universe. This is the reason why at times the case study method is alternatively known as "mode of organising data".
- (ix) This method is a means to well understand the past of a social unit because of its emphasis of historical analysis. Besides, it is also a technique to suggest measures for improvement in the context of the present environment of the concerned social units.
- (x) Case studies constitute the perfect type of sociological material as they represent a real record of personal experiences which very often escape the attention of most of the skilled researchers using other techniques.
- (xi) Case study method enhances the experience of the researcher and this in turn increases his analysing ability and skill.
- (xii) This method makes possible the study of social changes. On account of the minute study of the different facets of a social unit, the researcher can well understand the social change then and now. This also facilitates the drawing of inferences and helps in maintaining the continuity of the research process. In fact, it may be considered the gateway to and at the same time the final destination of abstract knowledge.

- (xiii) Case study techniques are indispensable for therapeutic and administrative purposes. They are also of immense value in taking decisions regarding several management problems. Case data are quite useful for diagnosis, therapy and other practical case problems.

Limitations: Important limitations of the case study method may as well be highlighted.

- (i) Case situations are seldom comparable and as such the information gathered in case studies is often not comparable. Since the subject under case study tells history in his own words, logical concepts and units of scientific classification have to be read into it or out of it by the investigator.
- (ii) Read Bain does not consider the case data as significant scientific data since they do not provide knowledge of the "impersonal, universal, non-ethical, non-practical, repetitive aspects of phenomena."⁸ Real information is often not collected because the subjectivity of the researcher does enter in the collection of information in a case study.
- (iii) The danger of false generalisation is always there in view of the fact that no set rules are followed in collection of the information and only few units are studied.
- (iv) It consumes more time and requires lot of expenditure. More time is needed under case study method since one studies the natural history cycles of social units and that too minutely.
- (v) The case data are often vitiated because the subject, according to Read Bain, may write what he thinks the investigator wants; and the greater the rapport, the more subjective the whole process is.
- (vi) Case study method is based on several assumptions which may not be very realistic at times, and as such the usefulness of case data is always subject to doubt.
- (vii) Case study method can be used only in a limited sphere., it is not possible to use it in case of a big society. Sampling is also not possible under a case study method.
- (viii) Response of the investigator is an important limitation of the case study method. He often thinks that he has full knowledge of the unit and can himself answer about it. In case the same is not true, then consequences follow. In fact, this is more the fault of the researcher rather than that of the case method.

Conclusion: Despite the above stated limitations, we find that case studies are being undertaken in several disciplines, particularly in sociology, as a tool of scientific research in view of the several advantages indicated earlier. Most of the limitations can be removed if researchers are always conscious of these and are well trained in the modern methods of collecting case data and in the scientific techniques of assembling, classifying and processing the same. Besides, case studies, in modern times, can be conducted in such a manner that the data are amenable to quantification and statistical treatment. Possibly, this is also the reason why case studies are becoming popular day by day.