

Chapter 15

Case Study

Quantitative studies are preferred over qualitative studies for their relatively higher objectivity. But many of the times, complexities involved in the occurrence of phenomenon, its causes, and consequences demand for in-depth analysis of a single unit of study. Whenever we want to study a single unit in depth both qualitatively and quantitatively then case study is the best method of research. Case study is a best tool to use, when we are interested in exploring a new phenomenon on which there is very less scientific information available and also when we are interested in formulating new hypothesis for causal study.

For example when we want to explore socio-psychological factors of entrepreneurial success among small and marginal farmers, case study can be a better choice for in depth study of multiple dimensions rather than a survey research which collects and analyses data at superficial level.

Case study is a non-experimental research technique of exploring and analyzing life of a social unit as a whole, be that is a person, family, community or any other social condition (Kerlinger, 1973).

More complex but more comprehensive definition is that, a case study is “*An empirical inquiry about a contemporary phenomenon (Example, a ‘case’), set within its real-world context—especially when the boundaries between phenomenon and context are not clearly evident*” (Yin, 2009).

Characteristics

- a. Based on one or very few social unit
- b. Conducts in-depth and intensive analysis of social conditions
- c. Considers sufficiently wide time cycle
- d. Qualitative in nature

- e. Does not follow sampling procedure like random sampling
- f. It looks at unit of analysis as a whole.

Assumptions

- a. Underlying units
- b. Influence of time
- c. Totality of being
- d. Complexity of social phenomenon.

When to use case study method

- a. Case study is suitable when your study is trying to provide a descriptive or explanatory answer. *What is happening or has happened? and How or why did something happen?*
- b. Secondly, case studies are useful when we want to conduct a longitudinal and in depth study on socio-psychological phenomenon occurring in its natural context.
- c. Case studies are suitable when we intend to get more detailed causes and consequences of certain socio-psychological phenomenon, including the emotional aspect of the cause and consequences.
- d. When we intend to study the special and rare cases.

Steps in designing and implementation of case study (Based on Yin, 2003)

Define the ‘case’: The case serves as the main unit of analysis in a case study. At the same time, case studies also can have nested units (“embedded subcases”) within the main unit. Put your efforts into selecting and defining as important, interesting, or significant a case as possible. If you are willing to conduct a case study on common everyday phenomenon then, define some compelling theoretical framework for selecting your case. The more compelling the framework, the more your case study can contribute to the research literature.

Select Case Study Designs: Next step is to select one among four types of case study designs. Based on whether your case study consists of single-unit of analysis or multiple units of analysis and whether you are going to keep your case study holistic or you are going to have embedded subcases, there are the possible four types of case study research designs.

- Holistic single case design

- Embedded single case design
- Single case embedded subcase design
- Multiple case embedded subcase design.

Using Theory in Design Work: The third step is related to deciding on whether or not to use theory to support essential methodological steps like developing research question, selecting case, refining case study design, or defining the relevant data to be collected.

Select Data Collection Tools and Techniques and Collect Data: Based on the nature of the phenomenon and the nature of required data, we can collect data using methods like Direct observations, Interviews, Archival records, Documents, Participant-observation and Physical artifacts. There are numerous other sources and techniques for data collection.

Triangulate Evidence from Multiple Sources: You should constantly check and recheck the consistency of the findings from different as well as the same sources. In doing so, you will be triangulating—or establishing converging lines of evidence—which will make your findings as robust as possible.

Collect Data on Rival Explanations: During data collection, one should scan for events and actions that deviate from our claim and expectations. Data collection should involve a conscious and vigorous effort on search for evidences of discrepancy, as if we are trying to prove the strength of the plausible rival rather than seeking to discredit it. Finding no such evidence, despite an honest and effortful search, increases confidence on the descriptions, explanations and interpretations drawn on the basis of case study.

Data Analysis: No single analytical method or set of methods is suitable for analysis of collected data. The context and purpose of the case study demands specific analysis method or combination of various methods of data analysis. Data analysis approaches for case study include but is not limited to Pattern matching, explanation building, time series analysis, replication or corroboratory framework etc.

Presenting Case Study Evidence: This is the last stage of case study. Here we communicate the case study findings, support our findings, disprove the plausible rival explanations and point out knowledge gap in order to provide a ground level work for formulation and testing of statistical hypothesis and generation of theory.

Advantages

- a. Considers qualitative and emotional aspects of the social unit which the statistical procedure fail to capture.

- b. Overcomes the problems associated with detached studies.
- c. It is most comprehensive and holistic method as compared to any other method.
- d. Provides antecedent variables which researcher may feel to include in laboratory experiments.

Limitations

- a. More quantitative
- b. Cannot be used for establishing cause-effect relationship
- c. Constantly suffers from subject bias of researchers’ judgment
- d. Costly in terms of time and money
- e. Less reliable results and results cannot be generalized to population as such.

Application of case study

- a. Provides basic input for formulating the hypothesis
- b. Provides understanding about basic domain of social phenomenon for construction of scales/testing
- c. Helps in stratification of sample
- d. Widens the personal experience of researcher to study deviant behavior.

How case study is different from statistical methods?

Case study	Statistical method
Based on one or few subjects	: Studies large number of subjects
Data collection is intensive and in-depth	: Data collection is extensive and superficial
Selection of units is based on researchers judgment	: By using objective/purposive sampling methods
Consider emotional side of social phenomenon	: Fail to consider emotional side of social phenomenon
Output of research is more narrative and descriptive	: Output is more formal, structured and in numeric terms
Conclusions are drawn based on researchers judgment	: Conclusions are drawn on the basis of statistical tests

Types of case studies

- a. ***Descriptive:*** This is the type of case study which is used to describe the phenomenon, its nature and to identify possible causative factors. It can be used in order to develop a working hypothesis for further research.
- b. ***Exploratory:*** As the name suggest, exploratory case studies are used to identify and explore the natural phenomenon in order to understand its point of occurrence, frequency etc.
- c. ***Prospective:*** Here a researcher uses a theory to predict the future occurrence of a natural phenomenon in the life of a social unit and evaluates to what extent does the theory hold true in reality and identify possible factors that interfere in theory.

Guba and Lincoln (1981) categorizes case studies into three types; factual, interpretative and evaluative.

Few of the frequently found applications of case study method in agricultural extension

- a. To study entrepreneurial behavior
- b. To explore successful farmers stories
- c. To document ITKs.

Exercise

PART III: TOOLS AND TECHNIQUES OF DATA COLLECTION
