

CASE STUDY AS A RESEARCH METHOD

Case study research, through reports of past studies, allows the exploration and understanding

of complex issues. It can be considered a robust research method particularly when a holistic, in-depth investigation is required. Recognised as a tool in many social science studies, the role of case study method in research becomes more prominent when issues with regard to education (Gulsecen & Kubat, 2006), sociology (Grassel & Schirmer, 2006) and community based problems (Johnson, 2006), such as poverty, unemployment, drug addiction, illiteracy, etc. were raised. One of the reasons for the recognition of case study as a research method is that researchers were becoming more concerned about the limitations of quantitative methods in providing holistic and in-depth explanations of the social and behavioural problems in question. Through case study methods, a researcher is able to go beyond the quantitative statistical results and understand the behavioural conditions through the actor's perspective. By including both quantitative and qualitative data, case study helps explain both the process and outcome of a phenomenon through complete observation, reconstruction and analysis of the cases under investigation (Tellis, 1997).

Past literature reveals the application of the case study method in many areas and disciplines. Among them include natural examples in the fields of Sociology (Grassel & Schirmer, 2006), Law (Lovell, 2006) and Medicine (Taylor & Berridge, 2006). In addition, there are also other areas that have used case study methods extensively, particularly in government, management and in education. For instance, there were studies conducted to ascertain whether particular government programmes were efficient or whether the goals of a particular programme were reached. In other examples, such as in education, evaluative applications were conducted to assess the effectiveness of educational programmes and initiatives. In these types of study, limiting to only quantitative method would obscure some of the important data that need to be uncovered.

Definition Of Case Study

Case study method enables a researcher to closely examine the data within a specific

context. In most cases, a case study method selects a small geographical area or a very limited number of individuals as the subjects of study. Case studies, in their true essence, explore and investigate contemporary real-life phenomenon through detailed contextual analysis of a limited number of events or conditions, and their relationships. Yin (1984:23) defines the case study research method “as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used.” In some case studies, an in-depth longitudinal examination of a single case or event is used. The longitudinal examination provides a systematic way of observing the events, collecting data, analysing information, and reporting the results over a long period of time. For instance, studies on child language development can be conducted using this longitudinal case study method. Data collected through observations are recorded to ascertain the language development of a child. In another example, a researcher conducting a case study may examine the reading processes of only one subject over a period of time. In other words, a case study is a unique way of observing any natural phenomenon which exists in a set of data (Yin, 1984). By unique it is meant that only a very small geographical area or number of subjects of interest are examined in detail. Unlike quantitative analysis which observes patterns in data at the macro level on the basis of the frequency of occurrence of the phenomena being observed, case studies observe the data at the micro level.

Design of case study

Since case study method receives criticism in terms of its lack of robustness as a research tool, crafting the design of case studies is of paramount importance. Researchers can adopt either a single-case or multiple-case design depending on the issue in question. In cases where there are no other cases available for replication, the researcher can adopt the single-case design. For instance, a social study on the effects of the collapse of Highland Towers in Kuala Lumpur in the 1990s, or the effects of tsunami in Aceh in 2004 can be conducted using a single-case design, where events are limited to a single occurrence. However, the drawback of a single-case design is its inability to provide a generalising conclusion, in particular when the events are rare. One way of overcoming this is by triangulating the study with other methods in order to confirm the validity of the process.

The multiple-case design, on the other hand, can be adopted with real-life events that show numerous sources of evidence through replication rather than sampling logic. According to Yin (1994), generalisation of results from case studies, from either single or multiple designs, stems on theory rather than on populations. By replicating the case through pattern-matching, a technique linking several pieces of information from the same case to some theoretical proposition (Campbell, 1975), multiple-case design enhances and supports the previous results. This helps raise the level of confidence in the robustness of the method. For instance, research on dyslexic children with reading problems requires a number of replication that can be linked to a theory before conclusive results are generalised.

Careful design of a case study is therefore very important. This is because case study method, through interviews or journal entries, must be able to prove that:

- i. it is the only viable method to elicit implicit and explicit data from the subjects
- ii. it is appropriate to the research question
- iii. it follows the set of procedures with proper application
- iv. the scientific conventions used in social sciences are strictly followed
- v. a 'chain of evidence', either quantitatively or qualitatively, are systematically recorded and archived particularly when interviews and direct observation by the researcher are the main sources of data
- vi. the case study is linked to a theoretical framework (Tellis, 1997)

Advantages of case study

There are a number of advantages in using case studies. First, the examination of the data is most often conducted within the context of its use (Yin, 1984), that is, within the situation in which the activity takes place. A case study might be interested, for example, in the process by which a subject comprehends an authentic text. To explore the strategies the reader uses, the researcher must observe the subject within her environment, such as reading in classroom or reading for leisure. This would contrast with experiment, for instance, which deliberately isolates a phenomenon from its context, focusing on a limited number of variables (Zaidah, 2003).

Second, variations in terms of intrinsic, instrumental and collective approaches to case studies allow for both quantitative and qualitative analyses of the data. Some longitudinal studies of individual subjects, for instance, rely on qualitative data from

journal writings which give descriptive accounts of behaviour. On the other hand, there are also a number of case studies which seek evidence from both numerical and categorical responses of individual subjects (such as Block, 1986; Hosenfeld, 1984). While Yin (1984:25) cautions researchers not to confuse case studies with qualitative research, he also notes that “case studies can be based ... entirely on quantitative evidence”.

Third, the detailed qualitative accounts often produced in case studies not only help to explore or describe the data in real-life environment, but also help to explain the complexities of real life situations which may not be captured through experimental or survey research. A case study of reading strategies used by an individual subject, for instance, can give access to not only the numerical information concerning the strategies used, but also the reasons for strategy use, and how the strategies are used in relation to other strategies. As reading behaviours *Jurnal Kemanusiaan* bil.9, Jun 2007 involve complex cognitive processes, each reading strategy cannot be examined in isolation but rather in relation to other strategies (Zaidah, 2003).

Disadvantages of case studies

Despite these advantages, case studies have received criticisms. Yin (1984) discusses three types of arguments against case study research. First, case studies are often accused of lack of rigour. Yin (1984:21) notes that “too many times, the case study investigator has been sloppy, and has allowed equivocal evidence or biased views to influence the direction of the findings and conclusions”.

Second, case studies provide very little basis for scientific generalisation since they use a small number of subjects, some conducted with only one subject. The question commonly raised is “How can you generalise from a single case?” (Yin, 1984:21).

Third, case studies are often labelled as being too long, difficult to conduct and producing a massive amount of documentation (Yin, 1984). In particular, case studies of ethnographic or longitudinal nature can elicit a great deal of data over a period of time. The danger comes when the data are not managed and organised systematically.

A common criticism of case study method is its dependency on a single case exploration making it difficult to reach a generalising conclusion (Tellis, 1997). Yin (1993) considered case methodology ‘microscopic’ because of the limited sampling cases. To Hamel et al. (1993) and Yin (1994), however, parameter establishment and objective

setting of the research are far more important in case study method than a big sample size.

Conclusion

In summary, we provide some discussion of case studies in terms of the different types of case studies found in the literature. Case studies are considered useful in research as they enable researchers to examine data at the micro level. As an alternative to quantitative or qualitative research, case studies can be a practical solution when a big sample population is difficult to obtain. Although case studies have various advantages, in that they present data of real-life situations and they provide better insights into the detailed behaviours of the subjects of interest, they are also criticised for their inability to generalise their results.

Case study method has always been criticised for its lack of rigour and the tendency for a researcher to have a biased interpretation of the data. Grounds for establishing reliability and generality are also subjected to scepticism when a small sampling is deployed. Often time, case study research is dismissed as useful only as an exploratory tool. Despite these criticisms, researchers continue to deploy the case study method particularly in studies of real-life situations governing social issues and problems. Case studies from various disciplines and domains are widely reported in the literature.

References

Zainal, Zaidah (2007) *Case study as a research method*. Jurnal Kemanusiaan (9). pp. 1-6. ISSN 1675-1930