The Case for Case Studies in Management Research

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Abstract

It is commonly asserted that qualitative research in the organizational sciences lacks the rigor and objectivity of the quantitative approach. Case studies, while commonly used for educational purposes, have been viewed in a less favorable light in terms of research. This paper suggests that case studies represent an important research track in organizational science, not only as a method of generating hypotheses for quantitative studies, but for generating and testing theory. The paper will develop arguments in support of case study research, will highlight particular issues and constraints relating to case study research, and will offer recommendations for the use of this method.

"Empirical research advances only when it is accompanied by logical thinking, and not when it is treated as a mechanistic endeavor"


Introduction

A case study is an empirical inquiry that investigates a contemporary phenomenon within a real-life context where the boundaries between phenomenon and context are not clearly evident, and in which multiple sources of evidence are used (Yin, 1984). Case studies typically combine data-collection methods such as archival searches, interviews, questionnaires, and observation (Eisenhardt, 1989). While quantitative data often appears in case studies, qualitative data usually predominates.

In spite of their frequent use and long history, case studies have historically been stereotyped as a weak sibling among social science methods (Yin, 1984). Investigators who utilize case studies are regarded as having deviated from their academic disciplines and their investigations are purported to lack precision, objectivity and rigor. A major reason why case studies are viewed in a negative light is due to the fact that many equate “precision, objectivity and rigor” with quantitative measures. Gummesson (1991) notes that qualitative measures are often classified as second rate by universities and business schools. Given that qualitative methods of data collection normally predominate in case studies, it logically follows that they are held in somewhat lower esteem. This fact is not surprising given the history of business education and research.
The “Case” For and Against the Use of Case Studies.

**The Natural Science School of Social Science Research**

The traditional school of management thought can be traced all the way back to the seventeenth century and the view of Descartes and Newton that the whole is the sum of its parts (Gummesson, 1991). In this “natural science” approach to management, activities and behaviors are broken down and compartmentalized, and management is viewed as a series of steps to follow; quantification and logic are the dominating forces. This traditional school treats the fact that workers and organizations consist of human beings as almost an afterthought. While the case study was the approach of choice for sociologists in the United States at the turn of the century, with the University of Chicago at the forefront (Hamel, 1991), quantitative statistical methods in sociology, championed by Columbia University, gained a great deal of ground by the mid-1930’s and quickly took center stage. Since World War II, sociology has also been dominated by the natural science model (Sjoberg et al., 1991).

Advocates of the natural science model assume that an objective world exists independently of the researcher and that one can uncover “universal laws” of human nature and social reality. What is most important to these researchers is the establishment of rigorous and standardized procedures for collecting and analyzing data to test hypotheses and predict the course of social reality (Sjoberg, Williams, Vaughan and Sjoberg, 1991). This search for universal laws becomes a deductive process incorporating technical procedures aimed at demonstrating accuracy while eliminating any bias on the part of the researcher or the empirical context (Hamel, 1991). In quantitative studies, the research question seeks out a relationship between a small number of variables and efforts are made to operationally bind the inquiry, to define the variables, and to minimize the importance of interpretation until data are analyzed (Stake, 1995). Stake (1995) further asserts that quantitative researchers regularly treat the uniqueness of cases as “error”, outside the system of explained science. What quantitative researchers consider “error” (Standard error of estimate, situational factors, the individuality of the respondent and the measurer (Cooper and Emory, 1995) may be of critical importance to the case study researcher. Cornerstones of Management Science include various mathematical models that encompass calculus, linear and matrix algebra, and statistical and simulation techniques (Barman, Buckley and DeVaughn, 1997). Data collection methods typically include surveys from a large number of people who represent a population or a random sample of a population (Orum, Feagin and Sjoberg, 1991). The goal of the sampling process is to obtain accurate statistical evidence on the distributions of variables within the population (Eisenhardt, 1989). Throughout, the focus is on precision in the form of statistical procedures. In summary, for quantitative analysis, things can be counted; things are related to one another as natural science forces are related, as cause and effect; and
the social world may be assumed to operate according to a few underlying social laws (Orum et al., 1991).

The natural science school of social sciences has harshly criticized the use of case studies in research. Hamel (1995) underlines that the case study has been strongly faulted for 1) its lack or representativeness as a point of observation for a social phenomenon and 2) its lack of rigor in the collection, construction, and analysis of the empirical materials that give rise to the study. The first criticism concerns the view that generalizations cannot be made on the basis of case studies while the lack of rigor criticism is linked to the problem of bias, which is introduced by the subjectivity of the researcher and that of the field informants on whom the researcher relies to get an understanding of the case. However, the natural science school has itself come under fire for its shortcomings, notably in the field of business research. For Management Science, the traditional gap between what practitioners expect and what theoreticians provide has widened; as such, Management Science has been losing its appeal to the business community, and its usefulness in practice has been questioned (Barman et al., 1997). Furthermore, Business Schools have received strong criticism of their undergraduate and MBA core curricula due to a perceived excessive focus on theory, mathematical and statistical analytic methods (Goldberg, 1996). Even physicists such as Capra (1983) underline that the fragmented approach of business researchers and economists who favor strictly quantitative measures has created a huge gap between theory and business reality. By dealing with brief survey questions and large numbers of disconnected respondents, the flesh and bones of everyday life is removed from the substance of the research itself, which diminishes the usefulness of the research (Orum et al., 1991).

Increasingly, there is a feeling that the principle of “Let’s get it down to something we can count!” does not always formulate the best research strategy (Kaplan, 1964). Kaplan highlights what is referred to as the mystique of quantity, which is an exaggerated regard for the significance of measurement, just because it is quantitative, without regard either to what has been measured or to what can subsequently be done with the measure. Those bedazzled by the mystique of quantity respond to numbers as though they were the repositories of occult powers and Kaplan asserts that there exists behavioral scientists who, in their desperate search for scientific status, give the impression that they do not much care what they do if only they do it right: substance gives way to form. In this sense, lack of rigor becomes a problem in quantitative studies as well. Researchers run the risk of entering a vicious circle of academic research where researchers quote each other, have the “right” references, publish papers in the “right” journals, and present papers at the “right” conferences (Gummesson, 1991). Furthermore, it has been shown time and again, that quantitative research can also be affected by the bias of the researcher and of participants: samples can be manipulated, data can be tampered with or purposely excluded, surveys can be poorly constructed and respondents can answer dishonestly. In his book,
The Mismeasure of Man, Stephen Jay Gould (1981) highlights how quantitative measures had been used to give scientific validity to notions of intelligence (based on test scores and brain measurement) that were then used by white males to discriminate against women and ethnic minorities. Gould’s example highlights that blind faith in quantitative measures is not only wrong, but also potentially dangerous.

The Use of the Case

In his classic work “General System Theory”, Von Bertalanffy (1973) underlines the reasons why the laws and methods of physics should not be applied to social phenomena such as the study of Business. Von Bertalanffy underlines that conventional physics deals only with closed systems, i.e., systems that are considered to be isolated from their environment. Living organisms are essentially open systems that maintain themselves in a continuous inflow and outflow, a building up and breaking down of components. Organizations such as businesses, hospitals and universities should obviously be viewed as open systems in a constant state of flux and in constant contact with their environment. Von Bertalanffy concludes that the method of classical science is appropriate for phenomena that can be resolved into isolated causal chains, or are statistical outcome of an “infinite” number of chance processes. The classical modes of thinking, however, fail in the case of interaction of a large but limited number of elements or processes. Basically, the case is an integrated system (Stake, 1995).

The research conditions in business administration are such that conceptualization and the operational definitions used for measurement and observation are rarely subject to the same control as those in the natural sciences (Gummesson, 1991). Case studies offer the opportunity for a holistic view of a process as opposed to a reductionist-fragmented view that is so often preferred. According to the holistic view, the whole is not identical with the sum of its parts; consequently, the whole can only be understood by treating it as the central object of study (Gummesson, 1991). As a research endeavor, the case study contributes uniquely to our knowledge of individual, organizational, social, and political phenomena; the distinctive need for case studies arises out of the desire to understand complex social phenomena; in brief, the case study allows an investigation to retain the holistic and meaningful characteristics of real-life events (Yin, 1984). The case study’s unique strength is its ability to deal with a full variety of evidence - documents, artifacts, interviews and observations. (Yin, 1984).

Rather than assuming a world of simplicity and uniformity, those who adopt the qualitative approach of case studies generally picture a world of complexity and plurality (Orum et al., 1991). Since a number of organizational issues are related to the intersection of human agents and organizational structures, a case can be made that various major organizational issues cannot be addressed until in-depth case studies come to be viewed as
not just an adjunct to the natural science model but as having an independent role of their own in advancing sociological issues. (Sjoberg, 1991).

It would appear that much of the conflict between those who favor a natural science approach and those who favor the case study approach is due not to the fact that one approach is superior to the other, but because these two approaches are so different; not only in their methods but also in their aims. Related to the issue of quantitative versus qualitative measures, Yin (1984) underlines that case studies should not be limited to include only qualitative measures. In addition to the mystique of quantity, Kaplan (1964) also suggests that there exists a mystique of quality that is equally as dangerous. This mystique, like its counterpart, also subscribes to the magic of numbers, only it views their occult powers as a kind of black magic, effective only for evil ends (Kaplan, 1964). The lesson is that no research technique or measurement should be rejected or used a priori; the focus and scope of a project should lead to the research design. This lesson also applies to case studies, where both qualitative and quantitative measures can be used as warranted.

Still, as qualitative methods tend to predominate in case studies, it is important to underline why and when they should be used and how the case study approach contrasts against the natural science approach on major issues. First and foremost, the case study takes shape as part of an inductive approach where the empirical details that constitute the object of study are considered in light of the particular context (Hamel, 1993). This is in contrast to the deductive reasoning methods of the natural science approach where the uniqueness of the particular case is not considered. However, the appropriateness of either approach is determined by the aim of the researcher. Quantitative researchers have pressed for explanation and control by searching for cause and effect relationships between a small number of variables that can be applied in any setting. Qualitative researchers have pressed for understanding the complex interrelationships among all elements present in a particular case (Stake, 1995). Stake (1995) also underlines that the qualitative researcher concentrates on the instance, trying to pull it apart and put it back together again more meaningfully while the quantitative researcher seeks a collection of instances, expecting that, from the aggregate, issue relevant meanings will emerge.

In general, case studies are the preferred strategy when the investigator has little control over events and when the focus is on a contemporary phenomenon within some real-life context (Yin, 1984). Yin identifies at least four different applications for case studies. First, to explain the causal links in real-life interventions that is too complex for the survey or experimental strategies. The difference with the natural science approach in terms of explanation is that, while the natural sciences seek to explain universal truths, case studies strive to explain the particular case at hand with the possibility of coming to broader conclusions. The second application of case
studies is to describe the real-life context in which an intervention has occurred. Third, a descriptive case study strategy may be used to explore those situations in which the intervention being evaluated has no clear single set of outcomes. This last application indicates that case studies can be useful for theory generation while the natural sciences approach is usually used for theory testing. In this vein, Hamel (1993) highlights that all social science studies must start with a theory based on a review of the literature relating to the subject under investigation and this theory must then be validated through the study of a specific object or social problem. The key point is that before a theory can be validated, it must be constructed. In other words, a theory or theoretical framework first emerges through the inductive approach of studying an empirical case or object, not through a deductive process. Eisenhardt (1989) offers that the case study method's in-depth style and use of different methods frees the researcher from the shackles of strict procedure, unites thinking and increases the likelihood of generating novel theory.

The Validity of Case Studies

As previously highlighted, the harshest criticisms of the case study approach have revolved around the question of validity. Specifically, case studies are accused of being subjective, lacking rigor and yielding findings that cannot be generalized across settings. While, as previously emphasized, problems of validity also exist in strictly quantitative methods, the issues of validity in case studies deserve attention.

In terms of generalization, many state that you cannot generalize from a single case and that case studies are only useful for creating hypotheses but not for testing them. Yin (1984) points out, however, that an investigator's goal is to expand and generalize theories (analytic generalization) and not to enumerate frequencies (statistical generalization). If you have a good descriptive language by which you can truly grasp the interaction between various parts of a system, the possibilities to generalize are good. Normann (1984) suggests that the key is to build a proper case with analytic sophistication rather than creating something that can be easily replicated time and time again. The same philosophy can be applied to formal experiments. The important thing is the design of the experiment, not the amount of observations performed. Case studies should seek both generalization and the attention to the individual case, the generalizability is determined by the strength of the description of the context. Such descriptions are one of the cornerstones of case studies, the generalizability is determined by the strength of the description of the context. The key to asserting generalized findings is to build a proper case with analytic sophistication rather than creating something that can be easily replicated time and time again. The same philosophy can be applied to formal experiments. The important thing is the design of the experiment, not the amount of observations performed. Case studies should seek both generalization and the attention to the individual case, the generalizability is determined by the strength of the description of the context. Such descriptions are one of the cornerstones of case studies, the generalizability is determined by the strength of the description of the context.

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studies and allow the reader to determine the level of correspondence of this particular case to other similar situations. The detail and depth of the description rendered by the case study permit an understanding of the empirical foundations of the theory (Hamel, 1993). Hamel (1993) also notes that the degree of detail in the description of the case study thus serves to ensure that the representativeness of the case under investigation has been defined in a manner that is clearly apparent. Stake (1995) also asserts that people can learn much that is general from a single case. He notes that individuals are familiar with other cases through personal engagement or vicarious experience and as they add new cases, thus making a slightly new group from which to generalize, there is a new opportunity to strengthen, modify or reject old generalizations.

Case studies are also criticized for their lack of rigor due to the lack of standard methodological procedures. However, it could be argued that the lack of pre-determined steps makes case studies harder and more demanding. As previously stated, case studies utilize a plethora of data collection methods including observation, interviews, histories and quantitative measures. Rather than lacking rigor, data collection is labor-intensive, can last months or even years, and data overload seems almost inevitable (Miles, 1990). Without the bounding of a strictly quantitative methodology, the intensive use of empirical evidence can yield theory that is overly complex. Therefore, discipline and focus is certainly required. It should also be noted that formal methodologies for qualitative data collection and analysis have been developed, particularly by Miles and Huberman (1984, 1994), for observing events, conducting unstructured interviews and coding qualitative data. Furthermore, the use of multiple data-collection methods provides stronger substantiation of constructs and hypotheses (Eisenhardt, 1989). Stake (1995) highlights many triangulation methods used in case studies to increase validity. Analyzing data in different spaces, at different times and in different contexts; having other researchers, perhaps from totally different backgrounds, review procedures and conclusions; and using different data sources to study the same object (interviews and archived records) all serve to attain triangulation and increase confidence in conclusions.

The Case Study Roadmap: The Light at the End of the Tunnel

Through the literature on case study research in general and the work of Stake (1995), Hamel (1993) and Eisenhardt (1989) in particular, a clear vision of what activities need to be undertaken in order to conduct a proper and useful case study emerges. This roadmap can be summarized in the following points:

1. Determine the Object of Study

The first crucial step is for the researcher to decide what topic the case will focus on. It is important for the object of study to be broadly defined so that the researcher will have room to maneuver and allow the case to lead him or
her into new directions. However, it is important for the aims of the research to be outlined and tentative hypotheses to be constructed.

2. **Select the Case**

As previously highlighted, case study research does not rely on random sampling techniques. Rather, the case study researcher must strategically select a case that is pertinent to the object of study and that will allow the subject to be investigated fully.

3. **Build initial theory through a literature review.**

The existing literature on the object of study helps frame the case study and is important for establishing validity in the research and confidence in the findings. If the theories and hypotheses in the existent literature coincide with the findings of the case, than confidence in the findings will be increased. Still, if the results of the case do not coincide with the literature on the subject, then an excellent opportunity arises to determine why and perhaps develop new theory. As Eisenhardt (1989) underlines, tying the emergent theory to existing literature enhances the internal validity, generalizability, and theoretical level of theory building from case study research.

4. **Collecting and organizing the data gathering**

To avoid being overwhelmed with mountains of data, instruments and protocols should be established for the collection of data. While data collection is a constant process of grasping good opportunities as well as setting structured plans for observing events, interviewing sources and reviewing documentation, it is important that the focus remain on the object of study.

5. **Analyzing the data and reaching conclusions.**

Once again, the danger of being overwhelmed by the quantity of data exists during the analysis phase. The ultimate goal of the case study is to uncover patterns, determine meanings, construct conclusions and build theory. As previously underlined, rich description is a crucial step before conclusions can be offered. Once context is determined, the data can be examined properly and findings can be presented. The quality of the context description, creating links back to the literature and triangulation will all play a crucial role in determining the validity of the research.

To conclude, the idea that properly designed case studies lack rigor is clearly false; in fact, case study is remarkably hard, even though case studies have traditionally been considered to be “soft” research (Yin, 1984).
Perhaps the greatest criticism of the case study is that it is subjective and strongly influenced by the researcher. On this point, the case study is guilty as charged. In fact, the researcher does play a central role in the outcome of the study. Stake (1995) points out that all research depends on interpretation, but with quantitative designs there is an effort to limit the role of personal interpretation from the development of the research design, through the data collection and analysis. Qualitative designs call for the persons most responsible for interpretations to be in the field, making observations, exercising subjective judgement, analyzing and synthesizing, all the while realizing their own consciousness. For mainstream quantitative researchers, these interpretations and judgement create problems of reliability, which is often judged by the ability of an experiment or study to be replicated by another researcher who reaches identical conclusions. However, the identity and interpretation of the researcher need not affect the validity of the study.

In case studies, the identity of the researcher will influence the study based on two factors: access and preunderstanding. Access refers to the ability to get close to the object of study in order to truly find out what is happening (Gummesson, 1991). Gummesson (1991) relates many amusing stories of how business executives would limit the access of researchers, doling out “company lines” while trying to hide what was really taking place, usually for self-serving reasons. In the researcher’s efforts to gain access, two types of figures are essential: gatekeepers and informants. Gatekeepers are those who can open or close the gate for the researcher while informants are those who can provide valuable information and smooth the way to others (Gummesson, 1991).

Preunderstanding refers to such things as people’s knowledge, insights, and experience before they engage in a research project (Gummesson, 1991). Gummesson (1991) underlines that an individual’s preunderstanding is primarily influenced by five elements: 1) a knowledge of theories, 2) a knowledge of techniques, 3) a knowledge of institutional conditions, 4) an understanding of social patterns which encompasses a company’s cultural value system of often tacit rules of cooperation, social intercourse, communication, etc, and 5) the personal attributes of the researcher such as intuition, creativity, vitality, and human understanding. While a lack of preunderstanding will cause the researcher to spend considerable time gathering basic information, preunderstanding can be a serious threat to the objectivity of a study as it introduces bias on the part of the researcher. Those who are able to balance on the razor’s edge use their preunderstanding but are not its slave (Gummesson, 1991). It is essential that preunderstanding be subject to change, that the researcher be aware of their own paradigm, selective perception, and personal defense mechanisms; moreover, they must also take into account the fact that their own possible
insecurity or other personality factors may influence their research (Gummesson, 1991). Obviously, as Gummesson points out, the researcher in such a situation must be mature, open, honest, and possess, I may add, a strong focus and sense of discipline.

It is also crucial that the cases study researchers make their identity known up front in very explicit terms. Undoubtedly, the researcher’s subjectivity does intervene, but to the extent this intervention is clearly stated, it then becomes objectified into an object that is clearly the researcher’s point of view (Hamel, 1993). Therefore, the researcher is a variable in the research design. Consequently, the only way some form of objectivity can be sustained is through critical reflection, through recognition that one’s research results may well be shaped by one’s position in the power structure and by the ideological context within which one carries out social activities (Sjoberg et al., 1991). If the researcher is aware of his or her viewpoint and paradigm, they may be, in fact, more open to new possibilities and new explanations. In essence, case studies in management (qualitative) are valid and reliable. They fulfill the basic tenets of research and occupy a significant niche. However, the problem for most classical researchers (quantitative) is that they are different. If being different is a problem, it is possible that this real-life method of inquiry may be a nouveau solution.


