Generalization Is Everything, or Is It?: Effectiveness of Case Study Research for Theory Construction

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Abstract: Eisenhardt (1989) is one of the most frequently cited studies on the methodological fundamentals of the case study for theory construction. This paper will first summarize the methodology espoused by Eisenhardt (1989). Eisenhardt suggests nine steps for conducting a case study as an effective research method for theory construction. However, most of the research that cites Eisenhardt only emphasizes generalizability. To be sure, Eisenhardt (1989) takes a stance of positivism and has an awareness of quantitative empirical research. However, he does not necessarily advocate only generalizability. Regardless, some studies that have drawn on Eisenhardt (1989) have emphasized only generalizability. This has the potential of restricting theory construction using case studies.

Keywords: case study, theory construction, generalizability

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1. Introduction

Case studies are a critical and even attractive research methodology (Bartunek, Rynes & Ireland, 2006; Eisenhardt & Graebner, 2007; Sato, 2009). However, there are sometimes questions about whether the case study method is rigorous enough as a research methodology.

In addressing this question, Eisenhardt (1989) is one of the most frequently cited studies on the methodological case study fundamentals in theory construction. Yet most studies that cite Eisenhardt’s method emphasize only generalizability. As a result, the potential for theory construction using the case study method has not been sufficiently investigated.


According to Eisenhardt (1989), the case study is a research strategy which focuses on understanding the dynamics present within single settings. Eisenhardt (1989) focuses on the case study as a research methodology for theory construction in particular. According to Eisenhardt, theory construction consists of nine steps.

a) Getting started

When conducting a case study, the first thing to do is to formulate the research question. This enables one to specify what kind of organization the survey should study or what data the survey should...
b) Selecting cases

The next problem is case selection. In a case study that has the goal of theory construction, sample selection usually depends on theoretical sampling.

In statistical sampling, the sample is selected randomly from a population. Theoretical sampling on the other hand reiterates previous cases and uses what amounts to an extreme example that reproduces an existing case, builds upon the theory, or corresponds to a theoretical category.

c) Crafting instruments and protocols

Research on theory construction is able to combine multiple data sources. In particular, it combines quantitative and qualitative data. The case study can therefore use both types of data.

d) Entering the fields

An especially notable characteristic of the case study in theory construction is the overlap of data collection and data analysis.

Overlap of data collection and data analysis leads to flexibility in data collection. It enables the researcher to change the data collection methodology in the course of the research when the researchers comes up with a new idea that may generate a new theory.

e) Analyzing within-case data

First, independent analysis of various cases enables the researcher to avoid becoming overwhelmed by too much data.

In addition, by analyzing individual cases before comparing the various cases, the researcher is able to detect the particular patterns of the various cases, thereby deepening his or her understanding of
f) Searching for cross-case patterns

Bias can occur in cross-case comparisons, which could lead to erroneous conclusions. There are three ways to prevent bias.

The first is to separate the cases into categories and look at the similarities within each group and the differences between the groups. The second is to divide the cases into pairs for comparison, then look for differences between the cases that are similar and for similarities between the cases that appear to be different. The third is to divide the data according to the data source and try to gain insight into the particulars of the heterogeneous data.

g) Shaping hypothesis

The first step in hypothesis development is clarification of constructs. This step consists of two processes: elaborating on the constructs’ definitions and establishing proofs for measuring these constructs. These processes constitute a hypothesis-testing type of research, in that they are similar to formulating a construct from several metrics. However, a case study for theory construction differs in that it is the analysis itself that generates the constructs and their measurement, and that there is no way to group several metrics into one construct.

The second step in shaping hypotheses is verifying that the relationships between constructs fit with the evidence in each case.

This step also resembles hypothesis-testing research, but it differs from it in that a series of cases is treated the same as a series of tests, and each case is used to verify the hypothesis.

h) Enfolding literature

The concepts and hypotheses that surfaced from these cases are then compared with prior research. Examining literature which
conflicts with the emergent theory is important for two reasons. The first is that ignoring conflicting findings lowers the credibility of the research results. The second is that new knowledge can be gained by presenting a comparison of research that conflicts with one’s arguments.

It is also important to look at prior research that matches the results of the theory generated from the case study. This enables the development of a more robust and universal theory.

i) Reaching closure

Two major problems should be considered when concluding a study. One is when to stop adding cases; the other is when to stop cross-theory and cross-data repetition.

Regarding the first point, ideally, no more cases should be added when the point of theoretical saturation has been reached. Theoretical saturation refers to a situation in which no further knowledge can be gained by adding more cases because no further differences are observable in the post-survey results.

Regarding the second point, this redundancy should be halted when the saturation point has been reached. In other words, it should be stopped when further reiterations between the data and the theory no longer yield any improvements in the theory.

3. Strengths of Theory Building from Cases

The first advantage of using case study in theory construction as advocated by Eisenhardt is that it is a way to generate new theories. Creative knowledge is born from the juxtaposition of opposing or inconsistent evidence.

The second advantage is that such theory is highly verifiable. Theory that does not originate from direct evidence is problematic in terms of verifiability, but in the process of theory
construction, verifiability increases as constructs are measured and hypotheses are tested.

The third advantage is that the theory that has been constructed is empirically robust. Strong links with real data produce theories which accurately reflect reality.

Case study used in theory construction is valid if the position cannot be explained in conventional terms when the phenomena being studied cannot be accounted for using known methods. In these situations, theory construction from case study is particularly appropriate because theory building from case studies does not rely on previous literature or prior empirical evidence.

Case study research for theory construction can be evaluated according to the following three criteria. The first criterion is whether it produces a “good theory.” A “good theory” is one that is parsimonious, testable, and logically coherent.

The second criterion is whether there is a problem with the analytic process in relating the theory with the data. Just as in other empirical research, the case study must supply information about the process of gathering and analyzing data and samples.

The third criterion is whether new knowledge has been produced. The goal of theory construction research is to create new theories, so it must produce new knowledge and not merely re-verify previous knowledge.

4. Theory Construction and Generalizability

Eisenhardt (1989) is distinctive in its emphasis on the development of testable, generalizable theory. Constructing a testable theory so that such a theory becomes empirically robust is considered the reason for using case studies for theory construction as a research methodology.

This originates from the standpoint of positivism. Gibbert, Ruigrok,
and Wicki (2008) and Yin (2009) are among those who share this view. These research studies give the following four criteria for judging the validity of research methodologies, including case study:

1) Construct validity: The degree to which accurate operational standards can be determined vis-à-vis constructs (the relationship between the data and the concept)

2) Internal validity: The degree to which a certain correlation between variables is determined not to be a pseudo-relationship caused by other variables (the degree to which explanations using other theories can be eliminated)

3) External validity: The degree to which a certain relationship between variables can be generalized in other cases as well

4) Reliability: The degree to which the same results can be obtained

**Table 1. Frequencies of explicit mentioning per journal**

<table>
<thead>
<tr>
<th>Journal</th>
<th>Number of articles</th>
<th>Construct validity</th>
<th>Internal validity</th>
<th>External validity</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academy of Management Journal</td>
<td>10</td>
<td>0</td>
<td>2</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Administrative Science Quarterly</td>
<td>9</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Organizational Science</td>
<td>7</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Strategic Management Journal</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
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<td>1</td>
<td>3</td>
<td>20</td>
<td>4</td>
</tr>
</tbody>
</table>
when research is conducted using the same kind of procedure

However, Gibbert and Ruigrok (2010) showed that external validity is especially emphasized in empirical research that employs case study.

In addition, of the studies that use Eisenhardt (1989) as a methodological foundation, few of those that are frequently cited and influential advocate the criteria besides external validity.

Table 1 examines 30 of the articles that most frequently cited among the 287 articles citing Eisenhardt that were published between 1990 and 2014 in these major business journals: *Academy of Management Journal; Administrative Science Quarterly; Organization Science;* and *Strategic Management Journal.*

Although these studies do not necessarily meet the external validity criterion, they clearly exhibit some awareness of external validity.

Many research articles using case study have cited Eisenhardt (1989), and the number continues to grow (Ravenswood, 2011). At the same time however, they do not use the steps of theory construction that Eisenhardt (1989) suggests. Instead, empirical research using case study that emphasizes only generalizability continues to grow.

### 5. Conclusion

Eisenhardt proposes a research approach to case study for theory construction with a focus on quantitative empirical research methods such as surveys. Yet this does not mean that Eisenhardt advocates only generalizability.

Case study is also useful when the research goal is generalizability. Still, case study is useful in other ways besides generating theories with high generalizability. Social science
researchers, in particular, love to clarify the mechanisms that explain complex social phenomena, such as those that combine the purposes of many entities. Because of this, focusing solely on generalizability probably suggests only a one-sided viewpoint as the methodological criterion in theory construction by case study.

References


