

# Evaluating Case Studies



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# Introduction

5 Things should be considered when reviewing/reading a case study:

- Case Study Design
- Data Collection Methods
- Data Analysis and Interpretation
- Reporting and Dissemination
- Overall Review

# Case Study Design

- ❶ What is the case and its units of analysis?
- ❷ Are clear objectives, preliminary research questions hypotheses (if any) defined in advance?
- ❸ Is the theoretical basis—relation to existing literature or other cases—defined?
- ❹ Are the authors' intentions with the research made clear?
- ❺ Is the case adequately defined (size, domain, process, subjects?)?

# Case Study Design

- ⑥ Is a cause-effect relation under study? If yes, is it possible to distinguish the cause from other factors using the proposed design?
- ⑦ Does the design involve data from multiple sources (data triangulation), using multiple methods (method triangulation)?
- ⑧ Is there a rationale behind the selection of subjects, roles, artifacts, viewpoints, and so on?
- ⑨ Is the specified case relevant to validly address the research questions (construct validity)?
- ⑩ Is the integrity of individuals/organizations taken into account?

# Data Collection

- 11 Is a case study protocol for data collection and analysis derived (what, why, how, when)? Are procedures for its update defined?
- 12 Are multiple data sources and collection methods planned (triangulation)?
- 13 Are measurement instruments and procedures well defined (measurement definitions, interview questions)?
- 14 Are the planned methods and measurements sufficient to fulfill the objective of the study?
- 15 Is the study design approved by a review board, and has informed consent been obtained from individuals and organizations?
- 16 Is data collected according to the case study protocol?



# Data Collection

- 17 Is the observed phenomenon correctly implemented (e.g., to what extent is a design method under study actually used)?
- 18 Is data recorded to enable further analysis?
- 19 Are sensitive results identified (for individuals, the organization or the project)?
- 20 Are the data collection procedures well traceable?
- 21 Does the collected data provide ability to address the research question?



# Data Analysis and Interpretation

- 22 Is the analysis methodology defined, including roles and review procedures?
- 23 Is a chain of evidence shown with traceable inferences from data to research questions and existing theory?
- 24 Are alternative perspectives and explanations used in the analysis?
- 25 Is a cause-effect relation under study? If yes, is it possible to distinguish the cause from other factors in the analysis?
- 26 Are there clear conclusions from the analysis, including recommendations for practice/further research?
- 27 Are threats to the validity analyzed in a systematic way and countermeasures taken? (Construct, internal, external, reliability)

# Reporting and Dissemination

- 28 Are the case and its units of analysis adequately presented?
- 29 Are the objective, the research questions and corresponding answers reported?
- 30 Are related theory and hypotheses clearly reported?
- 31 Are the data collection procedures presented, with relevant motivation?
- 32 Is sufficient raw data presented (e.g., real-life examples, quotations)?
- 33 Are the analysis procedures clearly reported?



# Reporting and Dissemination

- 34 Are threats to validity analyses reported along with countermeasures taken to reduce threats?
- 35 Are ethical issues reported openly (personal intentions, integrity issues, confidentiality)
- 36 Does the report contain conclusions, implications for practice, and future research?
- 37 Does the report give a realistic and credible impression?
- 38 Is the report suitable for its audience, easy to read, and well structured?



# Overall Checks

- 39 Are the objective, research questions, and hypotheses (if applicable) clear and relevant? (1, 2, 5, 29, 30)
- 40 Are the case and its units of analysis well defined? (1, 5, 28)
- 41 Is the suitability of the case to address the research questions clearly motivated? (8, 9, 14)
- 42 Is the case study based on theory or linked to existing literature? (3)
- 43 Are the data collection procedures sufficient for the purpose of the case study (data sources, collection, validation)? (11, 13, 16, 18, 21, 31)
- 44 Is sufficient raw data presented to provide understanding of the case and the analysis? (32)



# Overall Checks

- 45 Are the analysis procedures sufficient for the purpose of the case study (repeatable, transparent)? (22, 33)
- 46 Is a clear chain of evidence established from observations to conclusions? (6, 17, 20, 23, 25)
- 47 Are threats to validity analyses conducted in a systematic way and are countermeasures taken to reduce threats? (27, 34, 37)
- 48 Is triangulation applied (multiple collection and analysis methods, multiple authors, multiple theories)? (7, 12, 22, 24)
- 49 Are ethical issues properly addressed (personal intentions, integrity, confidentiality, consent, review board approval)? (4, 10, 15, 19, 35)
- 50 Are conclusions, implications for practice and future research, suitably reported for its audience? (26, 29, 36, 37, 38)



**Are there any questions?**