

Chapter 10

Case studies and qualitative interviews

Chapter contents

10.1 Case studies	374
10.2 Qualitative Interviews	385

LEARNING OBJECTIVES

When you have read this chapter, you should understand:

- why case studies are a very useful research approach and how they are conducted

10.1 Case studies

In the following sections, you will learn more about what case study research is about and how it differs from archive research, survey research and experiments. We have decided to discuss it here very extensively, as case study research is widely used and very effective in management research. Furthermore, it is a very popular approach among students preparing their final theses, as it combines business practice with science and also allows them to supplement their studies, (i.e. writing a thesis), with gaining practical experience (e.g. by following an internship).

Case study research is suitable for explanatory, descriptive and exploratory research, like the other approaches. The suggestion that case study research is especially, or even only, appropriate for exploratory research is a prejudiced view held by people who have little experience with

case studies. Yin defines a case study 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’.¹ This definition shows clearly how case study research differs from other research approaches. Experiments usually deliberately divide the phenomenon from the context and often isolate the phenomenon from the natural context that is replaced by a laboratory setting, while case study research emphasizes the embeddedness of a phenomenon in its real-life context. Although survey researchers can account for the context, their ability to do so is limited as the number of variables they can investigate is limited. Historical studies also broadly acknowledge the context, but contrary to historic studies case studies focus on contemporary phenomena.

The role and function of case study research within scientific research are areas that are often disputed; the most common prejudices to be heard concerning case studies are that they do not contribute to building and testing theories, and that their results are often biased.

Case studies, however, offer a useful approach for use in theory development as they are especially appropriate for answering ‘Why?’ and ‘How?’ questions, although they are less useful in investigating ‘What?’ and ‘How much?’ questions. We can use the Snapshot on aggressive behaviour at the Nedcar manufacturing plant to illustrate this (see p. 376). Suppose you were interested in how often this aggressive conduct occurred, how many of the employees were directly and indirectly affected by it, and investigating the level of damage it has caused to the company. A survey among employees or an **analysis** of archival sources could be appropriate. For example, you could ask respondents whether they had been victims of physical violence, blackmail, and so on in the previous year, or whether they had heard about other colleagues who had been victimized. Further, you could check production log books and accounting information to count the number of sabotage incidents, how long it took until a machine was made operational again and what costs were involved in repairing it. The data collected would be helpful in answering the questions posed above. However, if you are interested in the reasons behind such a high level of aggressive behaviour, case study research would be more appropriate, provided that before beginning your study you had formulated a theoretical account of possible explanations for violent behaviour within firms.

In terms of theory, development case studies are akin to experiments. The results of both can be generalized to a theoretical disposition but not to a population. While a sample of 1000 respondents from the Swedish population allows you to make inferences on the whole Swedish population, a couple of case studies in Swedish households do not tell you how all Swedish people live, but do tell you a lot about the power of your theory. With case studies, theories are developed and tested in a sequential, step-by-step, manner. Starting with a previously developed theory the researcher compares the results of the case study with the theory, just as an experimenter designs experiments with the objective of testing one or a few specific theoretical predicted relations. Just as an experiment is not sufficient to support or reject a theory, one case study cannot test a theory – however, a series of experiments or case studies permits the assessment of a theory.

The choice of whether to use either case study research or survey research to investigate a specific problem depends very much on the personal preferences of the researchers, which are likely to be rooted in the traditions of the academic schools at which they were trained and in the approaches that they have used in previous studies. This is why similar problem statements



Violence in companies

Nedcar, a car manufacturing company in Born (Netherlands), has quite a long history in car-making. In 1967, Dutch car manufacturer DAF relocated its factory from Eindhoven to Born, a city situated in the south of the Netherlands, at a point situated conveniently between Belgium and Germany, and at the intersection of major motorways, railways and waterways. In 1975, Swedish car company Volvo acquired DAF and, 16 years later, the factory in Born became the newly formed joint venture, Nedcar, owned in equal proportions by the Dutch state, Volvo and Mitsubishi. The Dutch state split its share equally between Volvo and Mitsubishi in 1999.

Shortly before that, stories about Nedcar had reached the public, revealing that within the company employees had been subject to the aggressive and even criminal conduct of a small group of colleagues, in the form of physical violence and blackmail. This aggressive behaviour was not only directed at fellow employees but also against Nedcar itself, and sabotage was a rather frequent occurrence. This was not the first time that the Nedcar factory had been connected with negative stories in the media. A few years prior to the incidents reported above, it had become public knowledge that family and friends of the president of Nedcar had obtained Volvo cars on very favourable terms, while at the same time people in the company's canteen were being sacked because some sausages had gone missing from storage.

How would you investigate the violence at Nedcar. What would interest you?

References and further reading

www.nedcar.com

may be investigated using different approaches. Although many problems can be investigated using case studies or surveys, case study research is usually more appropriate if the number of variables that needs to be considered is quite large. With the survey approach, a large number of relevant variables also calls for a similarly large number of observations.

10.1.1 Single versus multiple case studies

Within case study research it is possible to distinguish between single and multiple case studies (**single versus multiple** case studies). The former rely on one single case (as the name suggests), while the latter call for the investigation of several cases. Of course, investigating an issue in more than one context (i.e. case) is usually better than basing results on just one case. There are, however, occasions when a single case study is quite sufficient. If the intended case study research provides the closing critical study to a longer series of case studies, a single case is adequate. Such a critical case study requires of course, and as well as previous studies, a well-developed theory, and the case should be an acceptable real-life example of the circumstances in which the theoretical propositions need to be investigated.

Single case studies are also appropriate for investigating extreme or unique cases. Extreme cases (i.e. extreme combinations of circumstances) occur, according to the rules of probability, very rarely, hence there is often no more than one case available. An example is the tragic acci-

dent that befell the space shuttle *Challenger* in 2003, which was the first accident to have occurred in the landing phase of a space mission.

Moreover, a single case study may be justified for pragmatic reasons (which do not include the researcher's laziness!). For example, if a researcher is able to access information that is rarely accessible to researchers, a single case study is sufficient as it will offer as yet unknown insights. Suppose, for example, you had been allowed to carry the briefcase of Klaus Esser, former Chief Executive Officer (CEO) of Mannesmann, and observe all his actions while he resisted an unfriendly takeover bid from Vodafone until he finally accepted that company's offer on 4 February 2000. The opportunity to follow one of the key players in one of Europe's biggest takeover battles would be a unique case, for which pragmatic reasons advocate a single case study.

As mentioned above, multiple case studies are more appealing, though, as their results are considered more robust. Conducting multiple case studies requires considerable thought on which cases to select, however. Contrary to survey research the selection of cases – or, if you will, observational units – is not based on sampling logic but on **replication logic**. It is important to note here that the results of case studies are not generalized to populations, but to theoretical propositions. The main idea behind replication logic is that based on one's theory one expects that the same phenomenon occurs in the same circumstances or that the phenomenon differs if the circumstances change.

Suppose you shadow some information technology (IT) consultants who are implementing new CRM (customer relationship management) in several pharmaceutical firms. In a series of case studies you wish to investigate how employees in different jobs respond to the new system, why resistance occurs and how employees utilize the new system. In each of the pharmaceutical firms, the consultants use, on the whole, the same step-by-step implementation approach (i.e. each implementation case is a literal replication of the previous cases). If your study of these implementation projects reveals that the processes and outcomes are about the same in each case, the generalization of the case results to the theoretical propositions becomes more robust – that is, you are more convinced that your theoretical idea provides a helpful explanation of real-world phenomena.

A literal replication of case studies aims to select very similar case studies, and predicts that the processes and outcomes discovered in each study are also similar. Another kind of replication logic – theoretical – does not select similar cases but explicitly selects cases that differ from each other on theoretically important dimensions. Again, take the example of the implementation of CRM projects mentioned above, and suppose that you have the idea that organizational culture influences the course of the processes and the outcomes. Rather than selecting firms with a similar culture, you would select firms with different cultures.

10.1.2 The richness of evidence sources

The main advantage of case studies compared to other approaches is that they permit the combination of different sources of evidence. It is possible to distinguish roughly three sources of evidence:

- 1 interviews
- 2 documents and archives
- 3 observation.

Interviews

Interviews are the most widely used source for collecting information for evidence. Unlike interviews carried out with respondents to a survey, case study interviews are often unstructured, or even in the form of quite informal discussions with a key informant for the case. Informal discussions, or open-ended interviews with key informants, are a crucial part of many case studies, as the key informants provide valuable insights into the case's issues and can also point the case researcher towards other sources of evidence, such as relevant documents, archival surveys, or an existing internal survey or study.

The importance of discussions with key informants can also, however, give rise to the threat of the researcher becoming too dependent on them. Relying too much on just a few key informants can jeopardize the validity of a study if the informants present a biased picture of the case issue. For example, a case study on increased violence among employees at Nedcar (see Snapshot on p. 376), which is mainly based on accounts given by Nedcar's management or on interviews with the perpetrators, is likely to present a biased picture of the situation.

Semi-structured, or focused, interviews are another type of interview that is often used in case study research. In such cases, the researcher schedules interviews with people who possess relevant information on the case issues, and follows a particular structure (i.e. a set of open questions) in order to collect information. Semi-structured interviews have two main objectives: on the one hand, the researcher wants to know the informant's perspective on the issue but, on the other, they also want to know whether the informant can confirm insights and information the researcher already holds. This latter aspect, in particular, calls for a knowledgeable and socially competent interviewer. It is easy to ask people for their view on certain events and issues – confronting them with other views and asking them to reflect on their own view is more difficult. It requires a socially competent interviewer, who is able to dig deeper into the mind of the interviewee without starting an argument and ruining the cooperative atmosphere of the interview.

Finally, an interview within a case study can take the form of a structured interview as it is used in survey research, where the respondent is asked to respond to a fixed set of (mostly) closed questions. For the Nedcar Snapshot, a case study on the occurrence of violence within a firm could be supplemented with a survey among employees on their satisfaction with their jobs and colleagues. Sometimes case study researchers get lucky and can gain access to secondary survey data.

Documents and archives

Documents including archival sources form a rich source of evidence, which is rarely exploited in other research approaches and plays a crucial role in case study research. Documents can take many forms, including letters, internal memos and reports, newspaper articles, agendas, and so on. Documents and interviews supplement each other. On the one hand, documents – such as reports and newspaper articles – are very useful in preparing the outline of any interview and in discovering and identifying issues relevant to the case. On the other hand, interviewees can lead the researcher to documents that will corroborate information obtained in an interview. Getting hold of documents for a case study requires a systematic search approach, and the researcher should use interviews to locate them and ask for permission to access them.

Although documents are an essential source of evidence, you should also be aware of their

shortcomings. As most documents are in written form, they appear to be objective and truthful; however, most documents are written with a specific purpose in mind, and addressed to a specific audience. For example, the views expressed in an internal memo from the head of the procurement department on the performance of a specific supplier could differ markedly from an assessment of the same supplier by the production department.

Archival records, which are often available in digital form rather than in print, are another important source. Examples of archival sources are survey data (e.g. surveys on customer satisfaction), internal records (e.g. production statistics, personnel files, databases of customer complaints), charts and maps (e.g. charts relating to the organization) and personal records (e.g. diaries, notes on phone conversations). With respect to such archival records, you should also consider the purpose of their creation and explore their usefulness for your case study. However, if you can obtain access to relevant archives containing reliable information, you will have an extremely valuable source.

Observation

Observation is a research approach in itself (see Chapter 9). As with information obtained from documents, information from observations augments other sources and is especially useful in providing tacit information.

Suppose you are interested in the culture of an organization. Documents and interviews give the impression of a dynamic and innovative company. Just examining the architecture and furniture of the office will tell you whether this image is reflected in the appearance of the company. You look around and observe that the last redecoration of the offices took place about 20 years ago, the office furniture reminds you of sorts of chairs and desks you would see in a 1960s movie, and when you ask an interviewee for his or her e-mail address the answer given is that it would be better to send a fax as the whole department has only one computer that is connected to the Internet. This discrepancy (or 'lack of fit') between your own observations and what you have read in documents and heard in interviews is very valuable to your analysis of the firm's culture.

Two general types of observation can be distinguished: direct observation and participant observation. The latter describes the situation in which you as a researcher are a member of the organization under investigation. Examples of participant observations are:

- a student writes a thesis on how to integrate a recently acquired company, while simultaneously holding an internship in the project team overseeing the process of integrating a German insurance company into a Dutch bank
- a student writes a thesis on student associations and is also the president of one.

The major advantage of participant observation is that it often offers access to information that is not available to other researchers. This deep involvement in the organization, however, also carries with it a risk: the researcher may lose their neutral, objective view.

For both types of observation, either a systematic or a more casual approach may be used. 'More casual' means that your collection of observational information is a by-product of being involved in the organization, or a by-product of your visits to the organization to hold interviews and sift through documents and archives. How to collect observational information systematically is explained in Chapter 9.

10.1.3 How to conduct good case study research

One often hears the suspicion voiced that case studies produce biased evidence. Without doubt there are many case studies that follow highly questionable procedures in collecting information, apply dubious methods in analysing the information and finish with questionable conclusions. Unfortunately, however, this is also true of studies based on experiments, surveys or any other approach. It is not the approach that determines the quality of a study, but how the study is conducted. The quality of a case study depends very much on the skilful exploitation of its advantages and the rigorousness of its conducting.

Chapter 1 looked at the criteria for good research; Exhibit 10.1 applies these criteria to case study research. We now look at each of the points addressed in Exhibit 10.1 in more detail.

Purpose clearly defined

A clear definition of purpose requires an explicit formulation of the study's objectives and the problem under investigation. Try to be as specific as possible in defining the purpose. In the case study on CRM systems mentioned above, the purpose should be more than just an attempt to investigate the implementation of a CRM system. The researcher should also define what aspects of this implementation process he or she wants to investigate. Are they interested in responses including the resistance of employees affected by the new system? Are they interested in how the employees utilize the new system? Are they interested in the interactions between the IT consultants and the firm's management in the implementation process?

It is also of utmost importance that you as a researcher clearly disclose any theoretical expectation you have, because any pre-considerations you have about the piece of research will largely determine the design of your study (i.e. to whom you will talk, which questions you will ask, which documents you will look at). It doesn't matter if the theoretical expectation you had at the start of the research does not match the study's outcome. In fact, good case studies often start with a well-reasoned theoretical proposition, which is sequentially broken down in the course of the study by presenting findings that point to other explanations.

Research process detailed

A detailed description of the research process increases the accountability of the research, as readers are thus better able to assess it. As survey studies should inform the reader of the population used, the sampling method and the communication approach used with respondents, a case study researcher also has to describe in detail how he or she obtained the information presented. This means that you should provide information on your interview partners: who are they, what role they have in the issue investigated, how you approached them, how often and how long you talked with them, and so on. Similarly, you should describe in detail the documents and archives you have consulted, by showing what kind of information they contained, how you accessed them, why they were written and kept, and so on.

Research design thoroughly planned

Case study research involves careful planning of its design. For example, if you visit a firm rather wet behind the ears, and don't know exactly what you want to investigate, your own opinion on the relevant issues or the kind of information that you are looking for, the chances of you obtaining valuable information for your study will be close to zero. You are the

Criteria for good research	How may these be achieved in case studies?
Purpose clearly defined	<ul style="list-style-type: none"> ● Be explicit in the formulation of the research objectives and research problem. In particular, formulate unambiguously the theoretical propositions you want to generalize to
Research process detailed	<ul style="list-style-type: none"> ● Provide all information pertaining to the research process, including information on who you interviewed, what documents you obtained, what archives you looked through, which secondary data you used
Research design thoroughly planned	<ul style="list-style-type: none"> ● Explain clearly the thinking behind your selection of the case(s) ● Plan carefully how you are going to obtain information from different sources of evidence. Who do you want to interview? How long will those interviews take? In what kind of documents and archives are you interested? Who can you ask for help in finding and accessing them? ● Design a case study information base that clearly distinguishes the information obtained from the case study report
High ethical standards applied	<ul style="list-style-type: none"> ● Protect the rights of other actors involved in the study, such as sponsors and respondents or interviewees ● Ensure that your research fulfils the quality standards of good research by (i) giving an accurate account of the observation you have obtained, (ii) mentioning any information that does not fit with your theoretical proposition(s), and (iii) basing your conclusions and recommendations on the findings of the case study, and resisting the desire to exceed the scope of your study
Limitations frankly revealed	<ul style="list-style-type: none"> ● Discuss to what extent the picture your case study reveals can be considered a complete one ● Mention when you deviated from the planned procedures in order to collect information
Adequate analysis of decision-maker's needs	<ul style="list-style-type: none"> ● Explain, in detail, how you assessed the information obtained through observations ● Explain, in detail, how you combined and weighted evidence from different sources ● Do not get bogged down in details – keep the line of your argument(s) in mind at all times
Findings presented unambiguously	<ul style="list-style-type: none"> ● Use a clear structure that allows you to include all relevant details, and that prevents the reader from getting lost ● Use tables and graphs to support the presentation of your findings
Conclusion justified	<ul style="list-style-type: none"> ● Ensure that the conclusions you make are always supported by your findings and do not go beyond what you have researched.

Exhibit 10.1 Producing good-quality case study research.

researcher, and you have to find and impart the relevant information. This task cannot be done even by people within the firm. So, before you approach a firm or person for an interview, define clearly what you want to get out of the interview.

Do not forget that case studies thrive on the multiple sources of evidence used, and that you have to find out what sources exist and how you can arrange access to them. The rationale behind using multiple sources of evidence is that you develop converging lines of inquiry, and can apply a process of **triangulation** (i.e. the different sorts of evidence provide different measurements of the same phenomenon and increase the construct validity). The principle of triangulation increases the power of your evidence only if the sources are independent from each other.

The independence of two separate sources of evidence becomes doubtful if both can be traced back to the same origin. For example, if you obtain certain information about employee resistance during an interview with a member of the workers' union and this information is also supported by information found in a report, these two sources of evidence are not independent if the report was compiled by the same member of the union that you interviewed.

Sound case study research should delineate clearly a line between the information obtained and the report. In survey research the information obtained in the course of the survey is stored in data files, which do not usually form part of the study report. Likewise, as a case study researcher you should build up a database in which is stored all the information you obtained electronically, written or in any other form. Be aware that any notes you make during interviews or after visiting an organization are not part of the report, but part of your database.

High ethical standards applied

As with any other research a researcher has to meet certain ethical standards when conducting a case study. In Chapter 4, we discussed which ethical standards a researcher needs to comply with. Briefly, these ethical standards can be summarized in terms of two main guidelines. First, the researcher needs to ensure that the rights of other people involved are not infringed by his or her action, or the research itself. Privacy issues can be critical in case study research, as case studies usually reveal a great deal of information. If you promised confidentiality to the sponsor, you will need to ensure that well-informed third parties, such as competitors, cannot identify the sponsor, especially if your report is made publicly available. For the same reason, the right to confidentiality of informants can be at stake in case studies. In the Snapshot example of investigating violence on the shop floor at Nedcar, you would have to promise confidentiality to your informants (e.g. to a foreman who confesses to having blackmailed subordinates) and not provide sufficient information on them to enable people within the company to identify them.

Second, researchers need to be honest in their assessment and interpretation of the information obtained. A researcher should always raise the question of whether every other researcher would come to the same conclusions and interpretations of the information arrived at. If the answer to this question is yes, you will know that your assessment and interpretation of the information is a reasonable and justifiable account of the issue under investigation.

Limitations frankly revealed

Any study, case study or not, should frankly reveal its limitations. This revelation refers first of all to whether procedures desired from a methodological viewpoint could really be followed

during the research. Were the researchers able to fully obtain all information they required (i.e. did they have access to all written documents, could they interview all persons they were interested in)? For example, assume you study the effects of a firm's reorganization. Certainly, interviewing people who had been laid off in that reorganization would be important. However, it might be difficult to trace such people, as they may have moved to another city or may be less than willing to share their experiences and opinions with researchers. Furthermore, you should report and discuss any doubts you have concerning the reliability and quality of your information – for example, if you suspect that certain information has been strategically distorted or an important piece of information is unavailable for any reason.

Limitations also refer to the general applicability of the study. Although case studies do not attempt to give a representative picture of an issue, they still attempt to reveal certain effects or mechanisms that are likely to occur in other similar settings. For this reason a case researcher needs to make sure that findings in a case study are not based just on the idiosyncrasies of a specific case.

Please note that revealing and discussing limitations is not the same thing as undermining the results of a study; rather, it should serve to reinforce the reader's confidence in the study.

Adequate analysis of decision-maker's needs

Survey researchers can use quantitative analysis methods – a rich, standardized and advanced toolkit – to analyse their information. Case study researchers are still bereft of such finely honed equipment; however, their toolkit is far from empty. They have tools that will enable them to analyse adequately any information obtained – via, for example, pattern matching and time-series analysis.

The general rationale behind pattern matching is to form a general picture of the case by detecting patterns in the information. There are several approaches to this. One is to split the theoretical dependent variables into different non-equivalent variables. In our example of the implementation of a CRM system mentioned above, we might expect a certain pattern between organizational structure and resistance, and could, for example, arrive at the following propositions.

- 1 Employees affected by the new CRM system will approach the workers union representative and rely on him to discuss the implications of the new system for the shop floor rather than discussing the new system directly with management.
- 2 Departments affected by the new CRM system will experience an increase in sickness leave days and resignations, and a reduced willingness to work extra hours.
- 3 The atmosphere in meetings becomes more controversial and formal, and informal communication becomes less open.

Each of these three propositions refers to an aspect of resistance in the company. If the information provided by the case study supports each of these propositions, the researcher can argue more convincingly that resistance in the investigated case is high.

The second approach is closely related to the theoretical replication of a case study, by looking for patterns with rival explanations. Thus, in the CRM implementation example, the researchers formulate rival explanations for the occurrence of resistance by defining for each explanation an exclusive set of independent variables. Then they check either within a single

case study or across multiple case studies whether the case points to one of the rival explanations, as the case, in reality, matches with this explanation's set of independent variables.

Time-series analysis is often conducted in experiments and quasi-experiments (see also Chapter 11). Time-series analysis can be very simple – for example, following the trend of a certain variable over time. This trend is then compared to a theoretical explanation and a rival explanation, and any other trends, based on certain artefacts. More complex time-series analysis involves looking at the trend over time of multiple variables, and investigating whether changes in one variable are followed by changes in others. More complex time-series analyses are suitable bases for theoretical propositions on causes and effects between variables.

Suppose you wish to study on-the-job training in a plaster factory and, among others, you have the proposition that it takes between one and three months for on-the-job training to result in productivity gains. If you built up a time-series analysis of on-the-job training and productivity changes, the line representing the training must precede changes in the productivity line, and the lag between the two should be between one and three months. So, for example, if your interviews and documents reveal that the firm had on-the-job training programmes in place in the Wolshire plant in February 2002 and in the Moerdijk plant in September 2002, you should observe an increase in productivity in the Wolshire plant around April 2002 and in the Moerdijk plant around November 2002.

Findings presented unambiguously

In a good case study the findings are presented unambiguously. As mentioned already in the section on ethical standards above, this includes disclosing all insights that you have arrived at, including those that contradict your proposition. Furthermore, it is important that the reader of the study can easily identify the main points you wish to make. This requires that you attempt to state your outcomes unconditionally, and if the outcome is conditional this is made explicit. In case study research in particular the researcher often presents so much information that the reader can get easily lost in it. For this reason, you need to distinguish clearly between your main findings and any additional findings and information. Graphs, tables and figures are useful devices in helping to summarize findings and facilitate a quick understanding of them. You could, for example, provide a table in which the columns represent different sources of evidence and each row a different theoretical proposition. In the cells of the table you can then indicate the information obtained through a source and whether it supports or rejects your proposition.

Conclusion justified

You need to be careful that your conclusion is justified and does not expand the scope of your study. In particular you should not generalize the case study conclusion to much broader theoretical propositions. So, if your case study supports the proposition that less hierarchical organizations experience lower resistance during the implementation of a new CRM system, you must reveal that your study is on the relationship between organizational structure and resistance to new IT systems, but not on the relationship between organizational structure and resistance to change in general.

As mentioned above, case studies permit generalization to theoretical propositions but not to populations. Therefore, it is important that you resist the temptation to generalize results

from your case study to others. For example, the public image of railway companies has suffered in many European countries, as tragic accidents have occurred, trains have kept time poorly, and so on. Suppose a researcher investigated this issue with a case study at DB, the main German rail company. In the final chapter of the study, the findings for DB are applied to NS, the main Dutch rail company, which is facing similar problems. The report suggests that NS could solve many of its current problems if it followed the suggestions made for DB. Such a final chapter would be unreasonable. Instead, the researcher should have made it clear that the study is limited to DB and that any suggestions arising from the study cannot be applied to other rail companies without a consideration of the specific situations they face.

Case study research offers a very valuable approach to investigating scientific and business problems, and the results of case studies will provide essential insights into how and why certain processes work as they do, and what is required to get things moving in the intended direction. However, case studies will only provide useful insights if they are conducted well. The poor quality of case studies is a major facet in the many prejudices surrounding this method.

Business students often prefer to take the case study approach in their own research projects (e.g. in a Master's thesis), as they believe that conducting case study research is easier than setting up an experiment or designing a survey. The opposite is in fact true. Good case studies call for immense effort. Just interviewing three or four people in a company does not make a case study. It is necessary to collect information from a range of other sources, such as documents and archives, or by observation, as noted above. Analysis of the information that has been collected is also more difficult than may be supposed. Although the outcome of a quantitative survey can be summarized and correlated fairly easily with widely available statistics software packages, such as SPSS or STATA, for case studies such standard techniques – which can summarize, categorize and present information – do not exist. Furthermore, there are no generally accepted rules that determine whether a detected pattern is really a 'deliberate' one (i.e. as opposed to merely random). Neither do case study researchers have the benefit of levels of significance. With each study they do, they have to convince others that the observations they have made do or do not fit with theoretical explanations. Case study research might appear easy to do and the soft option, but the reality is that, because its structure is so flexible and its points of reference vague, conducting a good piece of case study research is in fact the hard road to take, especially for the inexperienced researcher.

10.2 Qualitative interviews

In Chapter 7 we discussed the different communication approaches used in survey research. Common to all these communication approaches is that the interview, either face to face or by phone, is highly structured. All respondents are asked the same questions with exactly the same wording and often the respondent's answer possibilities are predetermined by the researcher. In qualitative research, the interview can be structured, semi-structured or unstructured. In a **structured interview**, the researcher uses a very detailed interview guide line similar to a questionnaire in quantitative studies. **Semi-structured interviews** usually start with rather specific questions but allow the interviewee to follow his or her own thoughts later on. Probing techniques are widely used to evoke additional information from the respondents. A well-known example for a semi-structured interview is the TV interview of a journalist with a political

decision-maker in a newscast. **Unstructured interviews** mostly start with a respondent's narrative and may not have any specific question or topic list to be covered. In most qualitative studies, researchers hold semi-structured or unstructured interviews.

Exhibit 10.2 lists the main differences between structured and semi-structured or unstructured interviews. Structured interviews are useful if the goal of your study is to describe or explain, but they do not allow you to explore a topic, as the questions and answer possibilities for the respondents are predefined by the researcher. Exploring a topic needs at least a semi unstructured approach that gives the respondent the possibility to turn the interview in different directions and to come up with new sub-topics that the researcher often has not thought about beforehand. The differences between structured and unstructured interviews are partly connected with the aforementioned methodological polarizations concerning the underlying research philosophy (positivism versus interpretivism), the data-collection strategy (quantitative versus qualitative) and the sampling strategy (sample versus case study).²

Semi-structured or unstructured interviews are particularly useful if the research problem refers to a wide-ranging problem area and you as a researcher need to detect and identify the issues relevant to understanding the situation. The central idea of unstructured interviews is that you as a researcher want to gain insight into what the respondents consider relevant and how they interpret the situation. Possible explanations or causes of the situation are not predefined and hence the course of the interview itself is left open. In fully unstructured interviews, the interviewer usually has a mental list of relevant topics or themes to be addressed and this will be especially useful if the interview peters out. In semi-structured interviews, researchers use an interview guide containing a list of rather more specific questions to ensure that the interviewer covers the necessary areas and asks the questions in a similar, if not identical, way in all interviews. An interview guide is especially useful if interviews are conducted by different interviewers, the interviews are conducted in different settings (e.g. at two different companies), and the researchers already have an idea about which aspects are important to an understand-

	Structured	Semi-structured or Unstructured
Type of study	Explanatory or descriptive	Exploratory and explanatory (semi-structured)
Purpose	Providing valid and reliable measurements of theoretical concepts	Learning the respondent's viewpoint regarding situations relevant to the broader research problem
Instrument	Questionnaire (i.e. specified set of predefined questions)	Memory list Interview guide
Format	Fixed to the initial questionnaire	Flexible depending on the course of the conversation, follow-up and new questions raised

Exhibit 10.2 Structured and unstructured interviews.

ing of the situation under investigation. In both cases, the researcher is, however, free to ask additional questions and to change the order of the questions.

Suppose you want to investigate the working climate in a call centre. In a structured interview, you would, for example, ask respondents to rate their level of agreement with statements such as, 'I enjoy coming to work' on Likert scales; you would ask how many calls a respondent handles per hour, and so on. An unstructured interview would start with a question such as, 'Tell me something about your job; please describe to me what a typical day is like and whatever else is important.' Depending on the answers, you would ask follow-up questions such as, 'You just mentioned that at certain times of the day the call centre is very busy and callers have to wait for a long time and get annoyed. How do you deal with such stressful moments?'

A major criticism of structured interviews is that they stifle communication as the interviewer has little opportunity to resolve any communication problems.³ For example, even the rather simple survey question, 'Have you worked in the last month?' can lead to responses such as 'What do you mean by work?' among participants who do not have a paid job, but might have worked as a volunteer or followed a programme to reintegrate the long-term unemployed. Unclear terms pose a more serious threat in structured interviews, as some respondents will not report that terms are unclear and as interviewers often clarify terms in a way that differs from the researcher's intention. In unstructured interviews the problem of unclear questions is alleviated because how a question is interpreted is part of the answer.

The response opportunities of unstructured interviews are often appreciated by respondents very much, because they allow them to frame a story the way they want it and they are not pressed in the corset of a structured questionnaire. Moreover, unstructured interviews are often more rewarding for the respondent than a structured interview, as it often takes elements of a discussion between the respondent and interviewer/researcher, that is the interview itself can become interesting for the respondent, because he or she learns through comments and points made by the interviewer.

10.2.1 Questions in semi-structured and unstructured interviews

Writing an interview guide is an important part of semi-structured and unstructured interviewing as the intended interview moves from a fully unstructured interview to a semi-structured interview. An objective of unstructured interviews is to learn the respondents' viewpoints regarding phenomena relevant to the broader research problems. The main functions of an interview guide are that:

- it serves as a memory list to the interviewer to ensure that the same issues are addressed in every interview and not forgotten in some interviews
- it increases the comparability of multiple unstructured interviews by ensuring that the questions are asked similarly.

Designing an interview guide, however, involves a trade-off. The more specific the interview guide gets, that is the less structured the interview becomes, the less flexible the interviewer is in responding to the suggestions of the respondents. Thus, more structured guides improve the comparability of the answers, but reduce the explorative character of the interview.

A good starting point for an interview guide is to ask yourself the question, 'What do I want

to know or why does the phenomenon interest me?’ The basic principles of writing an interview guide are not very different from the principles of good questionnaire design (see Chapter 13) and you should ensure that:

- your guide contains questions that deal with all topics that could be important and order them so that they flow well, but be prepared to deviate from this path of questioning in the interview
- you formulate your questions in a language that is easily understood by the interviewees
- the questions you ask are not too specific and that the interviewee has ample opportunity to reflect on the issue at hand
- you reduce your influence as an interviewer as much as possible by avoiding leading or suggestive questions
- you also record some general and some specific demographics or facts about the respondent (such as age, gender, department they are working in, years with the company, etc.).

Question types

In unstructured interviews several different question types (as outlined below) can be distinguished, each serving a different purpose, and it should be emphasized that a researcher’s primary task in interviewing is *listening*.⁴

- *Introductory questions* – usually rather general questions that get the interview started, such as, ‘Please, tell me something about the department you are working in.’
- *Follow-up questions* are used to ask the respondent to elaborate further on a given question or to clarify whether you have understood them correctly. Examples are: ‘That is interesting. Please, could you say a little bit more on this?’ ‘Can you illustrate this with an example?’ and ‘What exactly do you mean by ...?’
- *Probing questions* are similar to follow-up questions, but refer more specifically to a part of the answer. For example, if the respondent has just mentioned that the firm entered the Hungarian market recently: ‘How was the decision to enter the Hungarian market made?’ ‘Why did you choose to enter the Hungarian market?’
- *Specifying questions* ask the interviewee to elaborate on the answer and to offer more information. Examples include: ‘What happened after the decision was taken?’ ‘How did the trade unions react to this announcement?’
- *Direct questions* provide information on how interviewees assess a situation from their viewpoint and often ask them to describe an opinion or feeling. For example: ‘What was your point of view regarding entering the Hungarian market?’ ‘Do you consider yourself an influential person in the organization?’
- *Indirect questions* are not directed at the interviewee personally, but ask for a general assessment sometimes followed up by a similar direct question. For example: ‘What do people around here think about the entry into the Hungarian market?’
- *Structuring questions* are used when you have the feeling that the topic talked about has been covered sufficiently. One way of avoiding moving on too early is to ask: ‘If we have not missed any important aspects of this subject, I would like to move on to [next topic].’

- *Silence* (i.e. pausing) is an important way of letting the interviewee know that you would like to hear more.
- *Interpreting questions* are asked in order to confirm that you have interpreted the information provided correctly. For example: 'Do you mean that without your efforts the decision to enter the Hungarian market would have been made much later or not at all?'

Unstructured interviews provide such an immense amount of information that it is hard to make a note of it all during the interview. This is why unstructured interviews are usually tape-recorded. The main advantages of tape-recording the interview are that as an interviewer you can focus on the course of the conversation rather than on taking notes. In addition, you (and others who did not take part in the actual interview) can listen to it again and make an accurate transcript of the interview. Moreover, direct quotes from interviewees, which often provide the 'spice' in a qualitative report, may more easily be collected. The disadvantage with tape-recording interviews is that many people feel uncomfortable when their responses are recorded and, consequently, this may influence their answering behaviour. For example, their answers might be less controversial. Technical problems with equipment and the need to change tapes after a certain time can also disturb the course of the interview. Finally, transcribing the information held on tape is very time-consuming, especially if the interviews are fairly long. The process of transcribing can, however, be shortened by only transcribing the relevant parts of interviews and leaving out answers that cannot be related to the research problem.

Projective techniques

In qualitative studies, researchers often look for hidden or suppressed meanings that sometimes even the interviewee is not aware of. Detecting those meanings is simply possible with questions typical for survey questionnaires, but projective techniques provide a helpful tool.

10.2.2 Individual and group interviews

Unstructured interviews can be held with an individual or with a group of people. The first is often referred to as an in-depth or depth interview, while the latter is also referred to as a focus group interview. Individual In-Depth Interview take the form of an unstructured one to one discussion with a well-chosen respondent, who has a deep insight in the relevant topic. In group interviews, a panel of experts is asked to discuss some open questions and topics.

Individual as well as group interviews are equally capable of exploring a new topic in order to develop new hypotheses, to clarify and operationalize a new concept or to identify important characteristics and drivers of a phenomenon. And both are not appropriate to gather information for testing hypotheses. But how do they differ? Individual depth interviews work much better if one needs to discuss sensitive issues that a respondent would be afraid of talking openly about in a group. The only exception to this rule is if you ensure that all the participants of a focus group have a similar experience background. For example, talking about sexual harassment is certainly a sensitive topic in any organizations. It is unthinkable to organize focus groups on such a topic along the lines of departments or hierarchical levels, as it becomes very likely that the victim and the perpetrator would be in the same group, but it is thinkable to talk about sexual harassment in a group that only consists of victims or perpetrators.

Another advantage of individual interviews is that the respondent is not influenced by other

respondents. In focus groups people might hold back their own ideas if someone else just stated a contrary idea probably reinforced by a ‘hmm, interesting’ of the researcher or group moderator. Thus, focus interviews can be biased towards what the majority of the focus group thinks or feels because the members influence each other. Still, it must be noted that interactions between members are also an advantage of focus groups as each group member can build upon the contributions made by others. As in a group brainstorming session, the group members can also inspire each other and develop novel ideas through a lively discussion.

Finally, group interviews are considered more economical, as you talk within one interview to more people. However, one should be cautious about this economic benefit, because if you talked for three hours with 10 people or with just one person, does not automatically mean that you obtained tenfold more information from the group interview, as even in a group interview only one person can talk at a time.

10.2.3 Interviewer qualifications

The demands on the interviewer are much higher in an unstructured than in a structured interview. In structured interview, the interviewers’ main task is to convince the respondent to participate, to read clearly the questions and answer possibilities and to keep the respondent motivated and perfectly willing to continue. Of course, it is better if the interviewer has some background knowledge on the study and the topic, but he or she does not need to be an expert. The situation in the unstructured interview is completely different. Here the interviewer should be an expert in the field and therefore unstructured interviews are mostly done by the researchers involved in the study, while structured interviews are often outsourced to research agencies.

The interviewer for an unstructured interview needs to be well informed if not an expert for the following reasons:

- 1 One of interviewer’s tasks is to direct the interview, which is a crucial if a respondent deviates from the interview’s topic. Then you have to decide to let the respondent continue, because the new route chosen might bring up some interesting novel ideas or to stop the respondent and redirect the interview. You cannot make such a decision if you have no knowledge on the topic.
- 2 In unstructured interviews, it is often necessary to probe respondents, that is asking them to continue on a topic through asking the same or a similar question again. Thus, here you need to decide whether what you have heard so far is sufficient or whether it would be better to get more, and again you cannot make this decision without knowing the topic well.
- 3 In unstructured interviews, respondents often expect you to be an expert. People do not like to waste their time talking with people who do not know anything about the topic.

Additional interviewer characteristics that are beneficial in unstructured interviews are that interviewers should be good at active listening. Active listening is more than listening, because it requires making short comments and clarifying questions. Doing so signals to the respondent that you are interested in him or her and what is said. Moreover, the capability to establish trust and a good atmosphere is an important asset, because respondents will simply tell you more if they trust you.

Running case study 10

Could we have done a case study?

As mentioned previously, the project's title has been 'the management of R&D alliances'. In the project, we have attempted to explain how firms search for cooperation partners, how much effort they put in the negotiation and contracting phase and what contracts they design. Thus, we have looked at the cooperation specific management (searching and contracting) of 94 cooperations that also have formed our unit of analysis. These 94 cooperations are nested in five large Dutch manufacturing companies. It is an idea to move the unit of analysis upward to the five firms and investigate the management of cooperations at the firm level and not at the cooperation level.

Of course, five firms would be too few to conduct any meaningful analysis, but five firms are an ideal setting for a multiple case study. At the time of the research, we did not explore this possibility, but we could have explored a case study research more. What would be a possible research strategy for conducting such a multiple case study? Whether you conduct a quantitative study or a case study affects many methodological aspects. I want to be clear about the fact that most times you cannot redesign a quantitative study to a case study or vice versa; often this will imply a complete different studies. The study on research and development (R&D) cooperations is, however, probably one of the few examples where we could do it with some additional efforts.

Suppose we explore the possibility of expanding the project on R&D cooperations to conduct a multiple case study in the five firms. Moving the research problem from the management of cooperations to the cooperation management of a firm already affects the research problem. Now we are no longer interested in how a firm can manage its cooperations, but are interested in how a firm should design its cooperation management. In the original project, we assumed that the answer to an optimal management of cooperations rests in searching for and finding a good partner and in negotiating and designing an optimal contract with the chosen partner. However, we did not explore firms' capabilities to do the searching and contracting well.

During our research, we heard several times that searching for and contracting with a particular partner was not slowed down by discussions with the prospective partner, but by internal discussions within the firm. A typical example is a R&D cooperation with a supplier. In high-tech, it is often not possible to purchase a standard component from a supplier; rather a firm looks for a supplier that can make a component according to its specifications. In such a cooperation the purchasing and the R&D department are involved and both have different objectives and cultures. The purchasing department is used to negotiate a low price, while the R&D department is interested in an innovative supplier. The same split within a firm can be observed at the buyer's side. The buyer's sales department is interested in a high profit margin and its R&D department appreciates the challenge to produce a new component that enhances the buyer's technological capabilities. Thus, managing cooperations is not so much a matter of finding equilibrium between the involved firms, but between finding it between the involved departments. In informal discussions with respondents, several R&D managers mentioned that they cooperated well with the supplier's engineers but were often called back by the purchasing department on the buyer side or sales department on the supplier side.

In the study on R&D cooperations, we did not explore these observations. We still assumed that a firm is one actor and does not consist of different actors. A crucial assumption, which is often made in business research, but which might turn out to be invalid, as within firms managers obstruct each other, departments follow different goals and business units compete with each other. How do internal disarrays affect the management of cooperations would be a research problem that could have been

investigated in a case study like research. One could have explored how these internal disarrays affect the specific cooperation management or whether and how it leads to some general management principles regarding cooperation.

Suppose we had set up such a case study with the five companies. What would have changed from the research design? Let us look at the following issues: sampling strategy, survey, archival sources, observations and interviews.

Sampling strategy: Although we moved our unit of analysis from the cooperation to the firm, it is still advisable to look at specific cooperations, because we know that a firm does not manage all its cooperations the same way. Thus, we are still interested in talking about specific cooperations, but we will select them differently. In the previous project we stratified the sample along the dimensions' cooperation size and previous relationship with the partner. Now we are interested in the internal communication and this suggests that we look for cooperations in which only one department has been involved and cooperations with different combinations of more than one department. Moreover, it might not be necessary to check 94 cooperations within the five firms and eight to ten cooperations in each firm would be sufficient.

Survey: We could still think about holding a small survey, but it should take much less time and we could certainly sacrifice a substantial number of questions. The consequence of sacrificing questions is that the validity of our measurements decreases, but we compensate for this decrease by using multiple sources of evidence. Thus, our information of what happened is not only based on the survey but also on archival sources and qualitative interviews. In addition, we can also ask more than just one respondent regarding a specific cooperation. For example, we could give the survey to a person from the R&D department and from the purchasing department. Another possibility that is often called for would be to send a survey to the partner.

Archival sources: If possible we would try to obtain not only access to the contracts, but also to any other documentation available, such as letters and emails exchanged between the firm and its partner or notes and memos from meetings, and so on. These documents provide a second source of evidence and we can cross-check the information provided in the survey with the documents.

Observations: As mentioned in the previous chapter, observations are hardly used as a sole source in business research, but can provide interesting additional information. In our case study, we can, for example, look for any artefacts that indicate that one department has a higher standing within the organization than the other one. Possible artefacts include location in the building, differences in office furniture, frequency of contact with general management, differences in the distribution of salary ranks, and so on.

Qualitative interviews: A central part of the case study would be to extend the number of qualitative interviews. On one hand, we would still collect specific information on a predefined set of cooperations, but we would add qualitative interviews with the topics of the general cooperation management and cooperation and competition between the departments. Next to the managers, responsible for specific cooperations, we would seek to have in-depth interviews with general management, the department heads and people from the legal department. To assess the atmosphere and culture towards external partners and other departments, we could also hold focus group discussions within the involved departments.

You should note that in the original explanatory project some of these elements have already be conducted.

Summary

Case study research is an important, and in business science also widely used, research approach. Unlike survey research it does not follow the sampling logic but the replication logic, and case study results are therefore not generalizable to a population but to a theoretical proposition. The main advantages of the case study approach compared to other approaches is that it relies on multiple sources of evidence, such as interviews, observations and documents.

Discussion questions

Terms in review

- 1 What distinguishes the case study research approach from other research approaches?
- 2 Describe the sources of evidence that should be used in case study research, and how to collect and analyse the information.

Making research decisions

- 3 The company relations office at your university offers an internship at IKEA. The intern will work for the project team assigned to prepare IKEA's expansion to China. You are lucky and get this job, and you are even luckier because one of your professors is willing to supervise your thesis on entry strategies for China.
 - a How would you design case study research combining your internship at IKEA and your thesis on entry strategies?
 - b To whom would you like to talk?
 - c What documents would be valuable to you?
 - d How could you ensure that you are not biased?

Classroom discussion

- 4 Discuss in the classroom or in sub-groups what would be needed to write a good case study on the following topics. Discuss what information you need, which sources you could approach, and so on.
 - a The emergence of standards and their consequences in the telecommunications industry.
 - b The effects of developments in information and communication technologies on the music recording industry.
 - c The basis of Ryanair's success as a low-cost airline.



Online Learning Centre

Get started with understanding statistical techniques!

When you have read this chapter, log on to the Online Learning Centre website at www.mcgraw-hill.co.uk/textbooks/blumberg to explore chapter-by-chapter test questions, additional case studies, a glossary and more online study tools for Business Research Methods.

Notes

- ¹ Robert K. Yin, *Case Study Research: Design and Methods*. Newbury Park: Sage, 1989, p. 23.
- ² Ray Pawson, 'Theorizing the interview', *British Journal of Sociology* 47, 1996, pp. 295–314.
- ³ Paul Beatty, 'Understanding the standardized/non-standardized interviewing controversy', *Journal of Official Statistics* 11(2), 1995, pp. 147–60.
- ⁴ Steinar Kvale, *Interview: An Introduction to Qualitative Research Interviewing*. Thousand Oaks: Sage, 1996.

Recommended further reading

- Eisenhardt, Kathleen M., 'Building theory from case study research', *Academy of Management Review* 14(4), 1989, pp. 532–50. This article describes the process of inducting theory, from case studies to writing conclusions, and discusses when case study is particularly useful.
- Gomm, Roger, Hammersley, Martyn and Foster, Peter (eds.), *Case Study Method*. Thousand Oaks, CA: Sage, 2000. This edited volume offers a broad discussion of the case study method and its role in scientific research.
- Yin, Robert K., *Case Study Research. Design and Methods* (3rd edn.). Newbury Park, CA: Sage, 2002. An excellent guide and one of the standard references for case study research. Designing and conducting a case study along the lines suggested in this text almost guarantees a good case study.