Case Studies in Business Market Research: An Abductive Approach

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Abstract

Case studies are frequently used in industrial network research. In this paper we discuss the difficulties and opportunities characterizing the case study approach. In particular we deal with single case research aiming at theory generation. For this purpose we suggest an approach based on ‘systematic combining’ grounded in an ‘abductive’ logic.

Introduction

From IMP-conference proceedings it is apparent that the case study approach is the most common method used in industrial network studies. The same situation seems to characterize many scientific disciplines. According to Yin (1994) the case study approach is applied extensively in as different subject areas as psychology, sociology, political science, anthropology, history, economics, urban planning, public administration, public policy, management science, social work and education.

There is no generally accepted definition of what a case study is. According to Yin (1994, p. 13) ‘a case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident’. A similar definition is provided by Miles & Huberman (1994) who consider a case ‘as a phenomenon of some sort occurring in a bounded context’ (p. 25). Eisenhardt (1989) adds another dimension when saying that the case study is a research strategy which ‘focuses on understanding of the dynamics present within single settings’ (p. 534). Case studies thus seem to be an appropriate method for understanding dynamics in settings where the phenomenon under scrutiny is embedded in complex relationships with its context. The increasing interest in case studies can, therefore, partly be explained by a shift in the research focus in social sciences. Since the 1960’s the system theory has come to play an ever-increasing role as a research paradigm in these disciplines. Following the definitions of case studies above, we find this approach very useful, particularly where studies of open systems are concerned. In general, open systems are characterized by interdependence between components, synergetic effects and influences from the context. Therefore, the research interest is rather to find out how elements interact in complex structures than to identify isolated relationships among a set of variables identified prior to the study. Industrial networks are open systems, subject to complex

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dynamics and interdependence, which make other approaches less appropriate. We thus agree with Easton (1995 p. 388) arguing that 'case studies are a powerful research method and one particularly suited to the study of industrial networks' 

Furthermore, the growing interest in hermeneutics has favored the case study approach. With a focus on understanding phenomena rather than on clear-cut explanations of causal character, the deep digging efforts of case studies become highly relevant. Hermeneutic approaches are concerned with 'language building' (Brunsson 1982). This takes us close to the argument that theory should be generated from data rather than from the traditional deductive way (Glaser & Strauss, 1967). Theory generation from data, however, does not imply proposing a completely inductive approach where the researcher sets out to interpret empirical observations without any preconceptions or theoretical foundations. The authors state that 'most hypotheses and concepts not only come from the data but are systematically worked out in relation to the data during the course of the research' (ibid. p.6). However, according to Glaser & Strauss certain ideas, and even models, can come from other sources. In this process we think that theory should play a more important role than is recommended for a truly inductive approach. To make a clearer standpoint concerning the usefulness of the case study approach we will relate it to a perspective that elsewhere has been referred to as abduction (Peirce 1958, Kirkeby 1994). According to Peirce abduction is defined as an exploration of a set of facts which are permitted to suggest a theory. The basic objective is to investigate the relationship between everyday language and concepts which is obviously similar to induction. However, according to Peirce the logic of abduction follows another trace that makes it useful for our purpose. We will identify this trace as 'systematic combining'. By systematic combining of theoretical and empirical findings the research process takes on a character that is different from both deductive and inductive approaches. During our expose of the assumptions and consequences following from an approach to use case studies for theory generation, we will elaborate further on the logic of abduction and the importance of 'systematic combining'.

**Case studies – appropriate and problematic**

The case study approach has not always been recognized as a proper scientific method. The main arguments for that standpoint have been that case studies provide little basis for scientific generalization (Yin 1994). For example, Weick (1969) expresses the opinion that case studies are too situation specific and therefore not appropriate for generalization (p.18). In the second edition of the same book, however, he concluded, with reference to 'noted investigators', that case studies 'are better tools than first imagined' (Weick, 1979. p. 37). The reason for the revised attitude to case studies was an evolving insight that 'findings are unstable over time'. Therefore, Weick recommends, in line with Cronbach (1975) that researchers should 'try harder to make interpretations specific to situations'. (ibid. p. 37). This means that what was previously regarded a problem now was recognized as an opportunity. The fact that learning from a particular case is conditioned by the environmental context should be considered a strength rather than a weakness. The interaction between a phenomenon and its context is best understood through in-depth case studies.

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However, the fact that a certain method is considered appropriate does not automatically guarantee high quality research. Yin (1994) poses critical remarks on some case study research by stating that ‘too many times the case study investigator has been sloppy and have allowed equivocal evidence on biased views to influence the direction of the findings and conclusions’ Yin concludes that case study research is remarkably hard to conduct, in spite of the fact that it has been considered a ‘soft’ approach. He even argues that the softer the research strategy, the harder it is to do.

Easton (1995 p. 379) identifies three types of weaknesses in case study research:

Some case studies are simply rich descriptions of events from which the reader is expected to come to their own conclusions. Others are really examples of data that appear to provide, at best, partial support of particular theories or frameworks and are used in a quasi deductive theory testing way. A third kind employs multiple ‘case studies’ in a way that suggests that they are relying on some notion of statistical generalisation.

Weick (1979) delivers similar criticism regarding the first type of weakness. According to him ‘many pseudo observers seem bent on describing everything, and as a result describe nothing’ (ibid. p. 38). The suggestion to solve this problem is to ‘invest in theory to keep some intellectual control over the burgeoning set of case descriptions’ A stronger reliance on theory also would help to reduce the negative effects of the second weakness identified by Easton. Investing in theory might improve the explanatory power of case studies. The crucial role of theory in interpretation of empirical observations is emphasized in our view of systematic combining.

**Aim, scope and outline of the paper**

This paper is a modest attempt to pave the way for case studies that can overcome some of the weaknesses pointed out in the foregoing section. Our major concern is related to case studies with the objective of generating theory, in terms of new concepts and models, rather than confirmation. The aim of the paper is to provide an overview of the basic characteristics of a methodology for theory generation from case studies. Based on the logic of abduction we have identified this method as ‘systematic combining’ where framework, data collection and analysis evolve simultaneously. Hopefully this may provide some guidelines that can be of help in the striving for more rigorous methodological considerations. The process of systematic combining suggested in the paper is based partly on our own research experience, partly on what we have observed concerning learning and development in industrial networks. Furthermore we have made a literature review concerning methodological issues of relevance for the systematic combining we propose.

Literature on case study research differentiates between single case studies and multiple case studies. Our discussion will concentrate on single case research. One reason for this choice is that multiple case studies have been dealt with at length elsewhere (Yin 1994,
Eisenhardt 1989, Miles and Huberman 1994). It seems as if there is some general opinion that multiple cases and replication provide better explanations than single cases. We think that such attitudes are a reminiscence of the times when situation specificity was considered a weakness. We agree very much with the third standpoint of Easton (1995) quoted in the foregoing section. The point made is that some researchers tend to employ multiple cases in a way that suggests that they rely on some notion of statistical significance. However, the advantages gained by increasing the number of cases have to be paid by certain disadvantages. According to Easton (1995 p. 382) this trade-off might result in negative effects:

They seek to do a number of case studies as if greater numbers, by and of themselves, increased the explanatory power of what they have been doing. Researching greater number of cases, with the same resources, means more breath, but less depth.

Our standpoint is that depth should be given more priority than breath to uncover the complexity of industrial network phenomena. This provides us with another argument for concentrating on single case studies. Furthermore, it is our belief that a focus on single cases is the best way to emphasize the particular fundamentals of the case study approach.

As already stated, our main concern is related to the generation of new concepts and models, rather than confirmation of existing theory. Furthermore, our approach is based on abduction. In abductive studies there is a very close connection between choice and development of theoretical models, basic research design, research issues, ‘operational’ methodological issues, and analysis and interpretation. In fact, these parts are intertwined. This may be true for case studies in general even if the case study approach is not explicitly described as abductive. For example, Yin (1994) is of the opinion that ‘a case study design is not something completed only at the outset of a study’ (p.52). In a similar way Bryman (1995) characterizes qualitative researchers as encouraging a perspective where formulation of theory and information gathering occur simultaneously. One of the major differences, compared both with pure deductive and inductive studies, is the role of the framework. In studies relying on abduction the original framework is successively modified, partly as a result from unanticipated empirical findings, but also from theoretical insights that are gained during the process. This approach creates a fruitful cross-fertilization where new combinations are developed from established theoretical concepts and newly developed ones when confronted with reality.

Most textbooks on research methodology do not take this intertwined research process into account. They tend to describe case studies as a linear process - similar to other research methods, which have been developed for other purposes and for studies in other types of contexts. Therefore, an understanding of the characteristics and consequences of case studies based on abduction needs an integrated approach. The reason is that the major difficulty where case studies are concerned appear to be to handle the inter-relatedness of the various elements in the research work.

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One major standpoint of this paper is the intertwined nature of the different activities of the research process. Therefore the standardized conceptualization of the research process as consisting of a number of successive ‘phases’ does not fit our purpose. We argue that the researcher aiming at theory generation should constantly be going ‘back and forth’ from one type of research activity to another. The preliminary analytical framework will be affected by what is discovered during data collection as well as during analysis and interpretation. Data analysis might identify new issues that must be covered in interviews etc. This process is what we refer to as systematic combining.

Having emphasized the intertwined nature of the process of systematic combining we are faced with a dilemma. This paper must be structured in one way or another. Our choice is to bring up three issues. The first is the successive development of WHAT is studied. Important issues in this respect are concerned with the phenomenon and the context in which it resides. In a traditional report this is discussed in a chapter where a conceptual framework and a number of research questions are formulated. In this respect there is no difference between the type of case studies we propose and other research strategies. However, where an abductive case study is concerned framework as well as research question might be arrived at rather late in the process. Part one of the systematic combining will start with a discussion of how much of the framework that should be developed prior to the fieldwork and how specific the research questions should be at the outset of the study. In the second section we will bring up an issue related to the type of study. Some case studies are focused on processes, others on structures. Whether there is a focus on structure or on process will have an impact on the way research questions are asked and can be answered. The third section of part one is devoted to a discussion of the boundaries of the case. In studies of processes the time boundary is important, i.e. how far back in time the researcher should trace the patterns in the case. In studies of structures the obvious question is how to expand the boundary in the context.

Part two of the paper deals with HOW the study is conducted and in which way data are analyzed and interpreted. In-depth case studies are based on a massive amount of data. This makes analysis and interpretation a difficult task especially concerning qualitative data (Yin 1994). Furthermore, it is the least codified part of the research process. Published studies usually describe research sites and data collection but leave little room for analysis (Eisenhardt 1989). According to Miles and Huberman (1984) it is usually impossible to follow how a researcher ‘got from 3.600 pages of field notes to the final conclusions, sprinkled with vivid quotes though they may be’ (ibid. p. 16). We think systematic combining might be of help in this process in two respects. One is to avoid to be occupied with 3.600 pages when the conclusions are to be formulated. The other is to present some guidelines for analysis. Even the second part of the paper consists of three subsections. The first deals what we have earlier identified as ‘going back and forth’ between the different activities in the research process. In the second section we bring up a typical characteristic of any case study: the use of multiple sources of evidence. An important dimension of systematic combining is to make use of different data sources and data collection methods that complement each other. The final section of part two deals with the role of the case over time. Especially we will bring up the important role that can be played by the evolving case during the research process.

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The third part, finally, deals with the REPORT. Systematic combining is characterized by going back and forth between different activities in the research process. This makes it difficult to find a structure for the final report. Part three deals with the general problem of writing the report as well as the particular problem to account for the abductive method.

The paper ends with a concluding discussion regarding systematic combining. We will point at some of the apparent similarities between the complex patterns of the case research process and the development processes in industrial networks subject to our research interest.

PART ONE: WHAT

Framework development prior to fieldwork

Miles & Huberman (1994) distinguish between two types of frameworks. One is classified as tight and prestructured – the other as loose and emergent. Both of them have their pros and cons. According to the authors too much prior structuring of the study might 'blind the researcher to important features in the case or cause misreading of local informant's perceptions' (ibid. p. 16). On the other hand they fear that a framework that is too loose might lead to 'indiscriminate data collection and data overload' (ibid. p. 17). Miles & Huberman argue that tighter designs are a wise course to take for researchers working with well-delineated constructs. They also clearly state that this relates to confirmatory studies. Yin (1994) seems to be of the same opinion when saying that 'theory development prior to the collection of any case study data is an essential step in doing case studies' (ibid. p. 28). The underlying reason is the same as for Miles & Huberman – the major concern is not to generate theory, but to verify it.

Our ambition is to present some guidelines for case study research aiming at theory generation through abduction. Therefore, we propose an approach in the opposite direction as the one suggested by Miles & Huberman and Yin. In fact our standpoint will be what Miles & Huberman describe as the archetype of proponents of the evolving framework.

They consider social processes to be too complex, too relative, too elusive or to exotic to be approached with explicit conceptual frames or standard instruments. They prefer a more loosely structured, emergent, inductively 'grounded' approach to gathering data: The conceptual framework should emerge from the field in the course of the study; the important research questions will come clear only gradually; meaningful settings and actors cannot be selected prior to field-work; instruments, if any, should be derived from the properties of the settings and its actor's view of them. (Miles and Huberman, 1994, p. 17)

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The arguments for this approach is that too tightly, predetermined conceptual frameworks may restrict the researcher and impose a gap between the perspectives of the researcher and the persons from the reality under scrutiny (Bryman 1995). In accordance, Blumer (1954) argues that theoretical constructs should not be interpreted rigidly when applied to reality. Blumer suggests that concepts should be used in a more sensible way to create a reference and to function as a guideline when entering the empirical world. In a similar manner, Bryman (1995) states that a theoretical concept provides the researcher with a set of general guidelines. In case studies with a theory-generating objective, the researcher should be open for the multitude of meanings that a certain concept can give rise to. The successive refinement of concepts implies that they constitute input as well as output of an abductive study. Therefore, an interesting question is how and when literature should be used in a study.

Strauss & Corbin (1990) discuss the use of literature extensively. They conclude that the roles of theory and literature in theory generating studies are very different from confirmatory studies. For investigations dealing with confirmation of theory the literature enables the user to identify previous research in an area, as well as discover black holes in it. Literature may also propose theoretical and conceptual frameworks. Furthermore, literature helps the researcher to delineate important variables, suggests relationships among them, and directs interpretation of findings.

When generating theory, literature plays quite another role. The researcher's objective is to discover new things – other variables and other relationships. Even during this process, the researcher must consider phenomena in the light of a theoretical framework. However, the researcher should not be unnecessarily constrained by having to adhere to previously developed theory. Theory is important, but it should be developed over time. This means that it makes little sense to start with too much 'received theory' or too many variables. According to Strauss & Corbin (1990), it is important to enter into the research situations with some background in what they call 'technical literature' However, there is no need to review all of the literature beforehand. In fact, doing that might hinder the desired process. In addition, where an abductive approach is concerned, the researcher would not even be able to identify 'all the literature' since the empirical fieldwork parallels the theoretical conceptualization. Hence, the 'need' for theory is created in the process.

Structural vs. 'processual' focus

Open system studies can be focused either on processes or structures. Some studies have a 'processual' view such as research on technical development or diffusion of innovations. Other investigations focus on structural aspects – for example, efficiency in a production system or a distribution network. Sometimes structural studies set out to investigate structural aspects of certain changes. A researcher might, for instance, be interested in comparing a structure at different points in time. One example would be to compare the structure of the distribution system for automobiles in 1999 with the structure ten years earlier. Changes in the structure over time are obviously the outcome of various processes. At first one might think that an eager case study researcher should try to grasp both the structural and processual aspects. The obvious reason is that they are both relevant. This is,
however, not possible. Structures and processes are completely interdependent but they cannot be focused on simultaneously since they make use of different units of analysis. The consequence is that structures and processes cannot explain one another. Structural elements cannot explain why and how certain processes evolve. At the same time individual processes cannot explain why and how structures change.

We will try to illustrate the problem with an example. During the 1990's 'outsourcing' has been the strategy of many companies. Outsourcing may be studied either with a focus on process or on structure. Studying the processual aspects of outsourcing would be to follow the implementation of an outsourcing decision taken by a buying company. The researcher would probably also try to capture and explain the sequence of events prior to the decision and the consequences following the implementation. This process takes place in a network structure. Analyzing the process will most certainly reveal numerous aspects of this structure. However, the structural parts are merely interesting in terms of how the actors involved have perceived them, and how and why they have acted upon these perceptions. Only the structural interdependencies that relate directly to the process will be taken into consideration. This means that not much can be concluded about the effects of, and on, the structure as a whole.

Another researcher might take an interest in structural changes. for instance in comparing the network structure before and after outsourcing. This researcher will have to concentrate on finding ample measures of the structure at the two different points in time. Such measures could be efficiency in operations, the interdependence of activities, the nature of customer-supplier relationships etc. before and after. The changes of the structure obviously result from various processes. However, this researcher will only be able to observe the aggregate effects of a number of processes. Based on that it will be difficult to analyze the relative impact of the different processes, which further makes it impossible to deal with causal process-structure relationships.

The boundaries of the case

Open system studies are made complicated by the fact that the structure or the process has to be kept within bounds. The problem is that in reality there are no natural boundaries. Studies focused on processes have to come to an end whereas the processes continue. Obviously, this makes the conclusions a function of the time at which the study was conducted. In addition, there are always limits in time. The researcher has a deliberate choice on how far back in time he wants to trace the process in question. The importance of the time boundary is clearly illustrated by two Swedish studies on technical development. Lundgren (1995) reports on a follow-up study of an investigation undertaken by the author some years before. The main conclusion in his book is that some of the findings from the first period have to be modified. What happened in the second period changed his interpretation of what happened in the first.

Waluszewski (1989) also illustrates the importance of the time boundary. Her study deals with the emergence of a new technique in the pulp and paper industry. The outcome of the process studied, was the establishment of a new mill based on this technology. This study
clearly shows that conclusions on the nature of a development process are dependent on the boundary of time. The longitudinal study revealed that the first steps in the development process were taken as early as in the 1950's. Over the years, the project ran into major problems and several times it was nearly terminated. Understanding the complex characteristics of the development process was only possible through the extension of the time boundary. If the researcher had used a narrower time frame, other aspects would probably have been in focus. It is most likely that such a study mainly would have come up with conclusions on factors that lead to the establishment of the new technique. The long-term perspective of the study also provided insights into the factors that hindered the development.

Studies dealing with structures must also be limited. Significant aspects related to these boundaries have to do with what actors to include and which interdependencies to consider. Any expansion of these boundaries provides potential discoveries of new interdependencies within the structure. Furthermore, it might bring up new or additional interpretations of those interdependencies already revealed.

It is obvious that the way boundaries are expanded is of major importance because it determines what will be found. The major issue, then, is to choose among dimensions available for expansion. According to our view the extension of the boundary constitutes the ‘sampling’ problem in single case studies. In this respect, it can be compared to the selection of additional cases in a multiple case design as well as the more traditional sampling in survey studies. The objective is to attain a ‘representative’ view of the studied phenomenon. However, the view of what is representative differs among these approaches. Surveys aim at generalizing to a population universe. Therefore, sampling must be in accordance with the logic of statistics. Case studies, on the other hand, rely on analytical generalization. Therefore, expansion of the boundary should always be directed by the development of the analytical framework.

PART TWO: HOW

Going back and forth

The recognition of research as a non-linear, path-dependent process of combining efforts has consequences not least for data collection. Traditionally, this is dealt with as a delimited ‘step’ in a study. However, a striking feature of how to build theory from case studies is the ‘frequent overlap of data analysis with data collection’ (Eisenhardt 1989). Strauss & Corbin (1990) illustrate the systematic combining of the researcher as a constant move ‘between asking questions, generating hypotheses, and making comparisons’ According to Eisenhardt (1989) this is the hallmark of building theory from case studies:

Creative insights often arise from the juxtaposition of contradictory or paradoxical evidence.... The process of reconciling these contradictions forces individuals to reframe perceptions into a new gestalt. (ibid. p. 546)
In one of our own studies we set out to analyze the activity dimension of industrial networks to explain the structural effects of outsourcing (Dubois 1998). Based on the network model (Håkansson 1987) as a rather general initial framework the data collection started in an unstructured way. Parallel to the data collection the search for useful theories, complementary to the general framework, was going on. In this endeavor a central conceptual model was found that could explain some of the interdependencies between activities that had been identified empirically (Richardson 1972). Thereby, the data collection was continued from another theoretical platform and could be further structured.

The major advantage of this kind of systematic combining is the dual impact of inductive and deductive approaches. There are situations when the analyst is not able to find evidence in the data. The reason can be that although the evidence is in the data it cannot be recognized. It might also be that the data is insufficient. When this happens, the analyst can turn to deductive thinking and hypothesize potential alternatives, then go back to the data or field situation and look for evidence to support, refute, or modify that hypothesis (Strauss & Corbin, 1990, p. 148).

Going back and forth between framework, data sources and analysis is one of the elements in systematic combining, and is also the tool for the researcher to generate new theory. It is, however, a cumbersome way to go. One reason is that it is time consuming. Another one is that the findings and conclusions only appear definite with time.

All theoretical explanations, categories, hypothesis, and questions about the data, whether they come directly or indirectly, from the making of comparisons, the literature, or from experience, should be regarded as provisional. They always need to be checked out, played against the actual data and never accepted as fact. (Strauss & Corbin, 1990, p.45)

Furthermore, Strauss & Corbin (1990) argue that it is not easy to make creative use of one’s knowledge and experience while at the same time holding on to the reality of a phenomenon rather than just thinking imaginatively about it’ (ibid. p. 44). One of their solutions to this problem is to maintain an attitude of skepticism. It is necessary to consider any theoretical explanation as provisional until supported by data. They recommend researchers to periodically step back and ask: ‘What is going on here?’ When doing so they further reinforce the need for alternating between collecting and analyzing data. Such procedures enable the analyst to see the research situation and its associated data in new ways and to explore the data’s potential for theory development.

Multiple sources of evidence

One of the great advantages of data collection in case study research is the possibility to make use of many different sources of evidence (Yin 1994). According to Yin multiple sources allow the investigator to address a broader range of historical, attitudinal and behavioral issues. Furthermore, he argues that any finding or conclusion in a case study is likely to be ‘much more convincing and accurate if it is based on several different sources

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of information following a corroborative mode' (ibid. p. 92). Consequently, deep probing case studies tend to be based on a multitude of evidence. One example is the study of technical development in the pulp and paper industry mentioned previously (Waluszewski 1989). The reference list is very comprehensive and includes 59 interviews with 42 different respondents. Furthermore, are 80 documents listed together with annual reports from 8 different companies for a total of 52 reports.

Combining sources of evidence while shifting between analysis and confirmation issues is usually denoted as triangulation (Yin 1994, Denzin 1978). According to Yin the major advantage of triangulation is the development of converging lines of inquiry. Huberman & Miles (1994) express it as 'self-consciously setting out to collect and double check findings'. It is easy to understand that triangulation has been strongly recommended in textbooks on case study research methods. However, these advantages are not unproblematic since triangulation requires multiple skills of the researcher. Furthermore, collection of data from multiple sources is time-consuming and resource demanding compared to more focused data collection. The problem is even more accentuated where analysis and interpretation is concerned. Kvale (1988) addresses this issue, when asking: 'How shall I find a method to analyze the 1 000 pages of interview transcripts I have collected?' This situation could easily evolve if one follows advice like 'write down whatever impressions occur' (Eisenhardt 1989). The author's argument is that it is often difficult to know what will - and will not - be useful in the future. Strauss & Corbin (1990) point to the uncertainty in the beginning of a study. They come up with the conclusion that in the early part of the study it is better to transcribe everything, otherwise important data might be missed. However, transcribing involves considerable amounts of time, energy and money. Therefore, as theory develops, it is recommended that transcribing should be selective. Finding appropriate mechanisms for selection then becomes very important. The evolving framework should be the guide in this process.

When using observations for data collection the researcher can take up two positions, either as a passive observer or as a participating actor. In interviews, the respondent can be assigned these dual roles. In structured interviews, the freedom of the respondent is limited to the variety of questions asked. In unstructured interviews, on the other hand, the respondent is more of an active participant. Permitting respondents to provide 'active' data increases the opportunity to attain unanticipated data. This is associated with the juxtapositions discussed by Eisenhardt (1989). However, although the researcher may perceive an interview as open and unstructured, the outcome of the interview will be affected by preconceptions. This has an impact on the articulation of the open-ended questions as well as on what data is actually transcribed. Hence, relying solely on interviews might be a problem because the outcome is guided by the researcher's current framework. Interviews, therefore, tend mainly to contribute in a cumulative manner. This means that the researcher might cement the view based on the preliminary framework. The other risk is to work too closely to the data in a true inductive way. Then the researcher might end up with Kvale's 1 000 pages. To avoid these problems calls for a systematic combining of 'active' and 'passive' sources that complement each other. The basis for this distinction is to what extent the data may contribute unanticipated information that is of relevance to the study. 'Passive' data is what the researcher has set out to find that appears

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through search. ‘Active’ data on the other hand is associated with discovery — it appears during the progress of the work. It is important for the researcher to use both active and passive data from various sources. The problem, where active data is concerned, is that collection is difficult to plan. When active data is found this is often an outcome of efforts to collect passive data — so called serendipity. However, the data sources and collection efforts may be more or less open in terms of allowing for active data. Interviews that are too structured limit the possibilities to come across the unanticipated. Participatory observation, on the other hand, enhances the chances of empirical discoveries. There are, however, risks involved with both extremes. Applying an approach that is too open, with respect to allowing for active data, may cause data overload problems. Applying an approach that is too structured will limit the possibilities of finding the unexpected. Therefore, there is a need to design studies that can identify and make use of both active and passive data. This is one of the important aspects of the systematic combining.

Combining interviews with observations is one way to handle this problem. Observations during meetings and other events beyond the control of the researcher may contribute data that would not have appeared otherwise. These observations generate new questions on which further interviews can be based. In addition, new insights resulting from active data may contribute to further development of the framework and thus trigger the search for complementary theoretical concepts and models. Active data may add new dimensions to the subject, but it may also change the view of the phenomenon. When the latter occurs, the current framework no longer fits which may be cumbersome since the researcher may perceive that prior efforts were of no, or limited, use. In addition, it may necessitate returning to interviewees and other sources of information with new questions. This non-linear fashion of the abductive research process is indeed frustrating.

Frustrating insights related to the ‘fit’ between the framework and the data may result from other approaches as well. However, when an abductive approach has been chosen, the effects may be less dramatic since the systematic combining foster many such smaller changes. Efforts prior to every change contribute in two ways. First, the general understanding of the phenomenon is increased by every data collection effort although the final use of the data is uncertain. Second, it should be evident to the abductive researcher that changes of this kind are an effect of learning. What has been learned is closely related to the understanding of why the framework and the research questions did not fit. This may not, however, entail suggestions to an alternative framework that would solve the problems. Therefore, the researcher may feel that he has taken one or several steps back in the process.

The role of the case

One important consequence of systematic combining is that the case evolving during a study can be regarded as a 'tool' rather than as a 'product.' The design of a case study thus becomes a matter of how to sharpen this 'tool' since this will be decisive of the final case, which is a 'product' that cannot be planned in advance. Of great importance to the combining process, is to make the evolving case a platform for discussions with other
researchers. As a 'tool' for this purpose, as well as for the researcher to distance him from it in order to see new aspects in it, the empirical language should preferably be maintained. Hence, although there are no possibilities to structure a case description without any theoretical ideas affecting the structure, the theoretical language, which 'finally' puts the empirical data into its theoretical context, should belong to the end product. Otherwise the readers will be constrained in terms of their potential contributions to further combination. In addition, reinterpretations will be harder to make.

Considering the case as a 'tool' the pieces of data added to it may be looked upon as pieces in a jigsaw puzzle. In the beginning very few pieces fit while patterns become clearer with every effort. However, one difficulty is that pieces from many jigsaw puzzles tend to mix which calls for choices during the process. This is the main reason for the importance of selection that was emphasized earlier. Both empirical observations and interaction with other researchers may confuse the researcher in the process. The confusion concerns both what patterns can be found among the collected pieces and also which one of the many puzzles the researcher should concentrate on. Whatever choices are made in the process there will surely be pieces left which belong to other puzzles. Hence, a selection must be made because when the case is finally turned into a 'product' there should be no such confusing pieces left.

In theory generating studies, the final case serves more as an 'illustration to the developed theory than as actual 'evidence'. This is, furthermore, an important consequence of the difference between studies directed towards verification vs. generation of theory. Therefore, issues of validity and reliability take on a whole different character in case studies of this kind. According to Pfeffer (1982) 'good theory' needs to meet three criteria. It should be testable, parsimonious and logically coherent. Brunsson (1982) argues that the criterion of testability is associated with the positivistic research ideal. Reliability is relevant for verification of theory but not for generation. The validity of the data used is also difficult to determine since the use of an abductive approach is rather to find out what is relevant data. Hence, when we come to the credibility of abductive studies we are more concerned with Pfeffer's two other criteria. According to Eisenhardt (1989) parsimony is a hallmark of good theory generated from case studies. However, being parsimonious can be a problem when relying on intensive use of empirical evidence. She argues that there can be a temptation to build theory, which tries to capture everything owing to the richness of data. There is an obvious risk that the researcher might end up with weak theory that is overly complex and thus says very little about very much. This is an additional argument for recommending selectivity in the process of systematic combining.

The third criterion is logical coherence. In case study research logical coherence has to do with the adequacy of the research process and the empirical grounding of data (Strauss & Corbin 1990). It is important, therefore, to provide the reader with information which makes it possible to evaluate the appropriateness of the research procedure. Eisenhardt (1989) claims that investigators should display enough evidence to allow readers to make their own assessments of the fit with theory. This is to say that the perceived quality of the end product is determined by the intellectual arguments connecting empirical findings with theoretical ones.

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PART THREE: WRITING

The report

In the spirit of affectionate irreverence toward qualitative research, I consider writing as a *method of inquiry*, a way of finding out about yourself and your topic. Although we usually think about writing as a mode of ‘telling’ about the social world, writing is not just a mopping-up activity at the end of a research project. Writing is also a way of ‘knowing’ – a method of discovery and analysis. By writing in different ways, we discover new aspects of our topic and our relationship to it. Form and content are inseparable. (Richardson, 1994, p. 516)

Obviously, the abductive approach, i.e. going back and forth between framework, data collection and analysis, makes structuring of the final report problematic. This concerns both the overall structure of the report, i.e. to put the pieces in some sequence, and the outline of the case itself.

Although an extensive share of current research in many fields seems to be abductive in character, research reports are often structured in accordance with deductive approaches. A problem is identified and discussed in the light of literature resulting in research questions. Thereafter, a proper method is developed to ‘match’ the research questions. Feasible empirical cases are chosen, presented and analyzed and there they are the results, conclusions and implications. And this seems to be regardless of the confused mix characterizing the process of the study.

Richardson (1994, p. 520) argues that ‘How we are expected to write affects what we can write about’, which is more or less set by ‘prescribed writing formats’ in the different fields of research. This often implies that inductively (or abductively) accomplished research is to be reported deductively, which, according to Richardson stems from the view of knowledge as being focused, problem (hypothesis) centered, linear and straightforward. In abductive studies, the framework may be as much of a result as the results presented at the end of the report. As opposed to verifying or deductive studies one important choice, therefore, has to do with what should be put before and after the case description. Presenting the final framework at the beginning of the report does usually not at all reflect the abductive process of the study. It may also be difficult to describe the method prior to the case description and analysis since references to these parts are needed.

The structure in which the case is finally presented is also a crucial issue. Not only that data is selected but also the way in which it is presented is of importance. Sometimes the final framework can be utilized to structure the case descriptions. In other cases, especially when the case concerns a process of some kind, it is better told as a ‘story’. Still, the researcher’s more or less implicit frameworks guide how the story is told. Aware of this problem, Lundgren (1995, p. 75) notes: ‘Some of the major findings of this study are embedded in the structure of the presentation: in telling the story.’ That is, the story telling is, and should be, influenced by the evolving analysis. The quality of the way this is done is demonstrated

by the logical coherence as discussed previously. Further, a demonstrated awareness of the impact of theoretical models, prior experience and other influences on the way the empirical reality has been dealt with is needed since a case, in one way or another, always ‘claims’ to be dealing with some aspect of reality. Easton (1995, p. 373) emphasizes the importance of epistemological justification, arguing that the realist position is that we seek valid explanatory knowledge: ‘What a valid explanation means in terms of realist epistemology will only become apparent when the basic postulates of the system have been described.’ Further, where the actual case description is concerned Denzin (1994, p. 505) emphasizes the importance of clear descriptions since these provide the basis for interpretation, understanding and verisimilitude. According to him, an event or process can therefore neither be interpreted nor understood until it has been well described. Obviously, this is of special importance to the readers of the report.

Strauss & Corbin (1990) use the term integration when discussing how the final story is formed. According to them it is necessary first to formulate a story line which is the conceptualization of a descriptive story about the central phenomenon of the story. And then, once a commitment has been made to a story, it is necessary to move beyond description to conceptualization, i.e. it is time to tell the story analytically. To identify the story line is, however, not without complications: ‘Sometimes making a commitment to a story line is difficult because one is so steeped in the data that everything seems important, or more than a single phenomenon seems salient.’ (Strauss & Corbin, 1990, p. 119). Furthermore, Strauss & Corbin emphasize that ‘the storytelling and its sequential order are the keys to ordering the categories in a clear fashion.’ (p. 129). Hence, the sequence must be logically related to the framework.

Whether a case deals with a process or a structure also has an impact on the way it may be structured. A processual focus necessarily involves time as a central dimension, which calls for some chronological ordering of the events identified in the case. However, the process may be perceived differently by the various actors involved. This means that there are still many possible choices e.g. to tell the stories from the different perspectives of the actors, or to tell the one story involving events in different parts of the whole (which thus would be no individual actor’s story). The choice necessarily depends on the focus of the study. For instance, is the study focusing on how individual actors act and react to changes, or is it on path dependence in the development of new technology? These kinds of questions must be asked and answered to order the selected data into a final case.

To account for the abductive method

Obviously, the method applied in abductive case studies is very difficult to account for in the end of the study. One may even say that the better the systematic combining is done the harder it is to account for. According to Kvale (1997) there are no established rules for how methods applied in qualitative studies should be reported. As a result, the method is often a black box where these studies are concerned. This may, according to Kvale, be a reaction against the worship of methods, and the view of science as being equal to formalized procedures, held by positivistic researchers. Or else, he speculates, the reason might be that
the researcher feels shame and guilt at not being able to live up to the dominating methodological ideals. Whatever the reason is, the consequence will be that it makes it difficult for the reader to follow the arguments presented by the author. But, there is an even more important issue to consider. Any study — based on a case or not — is characterized by a lot of problems related to method. If these selections and choices are not discussed in the report it might be interpreted as a lack of consciousness of the importance of these issues. Therefore, the author must avoid keeping the method a black box.

As a solution to the problem, Kvale suggests detailed accounts for the interviews and the situation around them e.g. the social background, the instructions to the interviewers, the interview questions, the records and the analysis made based on them. However, although we agree with Kvale on the black box nature of methodological accounts we do not believe that too detailed descriptions of the interviews will help much. Instead we suggest that the systematic combining efforts are described and discussed along with their results. We are also of the opinion that a main reason for the black box nature of method descriptions is the difficulty of reconstructing the process of the study. One reason is that it may be difficult to remember how one thing led to another during the process. The most significant problem is to recapitulate what has taken place in the mind of the researcher. That is, an important reason for the difficulties associated with accounting for the method of abductive case studies is the learning the researcher goes through during his study. Strauss & Corbin (1994) emphasize the importance of this learning to which they refer as theoretical sensibility. They do not consider that the first book on grounded theory (Glaser and Strauss, 1967) did enough in this respect:

[Glaser and Strauss] greatly underplayed both the potential role of extant (grounded) theories and the unquestionable fact (and advantage) that trained researchers are theoretically sensitized. Researchers carry into their research the sensitizing possibilities of their training, reading, and research experience, as well as explicit theories that might be useful if played against systematically gathered data, in conjunction with theories emerging from analysis of these data. (Strauss & Corbin, 1994, p. 277)

One way to deal with changes during the study is to account for the major ones in terms of research focus and direction, and also the reasons behind them. These reasons may be within the category of discovery, of changes on the field, or of changes in the researcher’s interest. In the study of outsourcing, referred to earlier, the study changed in terms of focus, phenomenon studied and main dimension of the theoretical model underlying the study. First, the study was focused on the outsourcing process in the company and thus how the actors were dealing with this issue. However, shortly after the study begun, the outsourcing process was terminated owing to the recession. Therefore, the study’s focus was redirected to analyze the structure of activities, i.e. to compare the situation where the activities subject to outsourcing were carried out internally within the case firm with the potential situation of having them undertaken by sub-contractors. Later in the process, the framework was developed by a central conceptual model on different categories of activities. Based on this framework the actual phenomenon was viewed in a new light. It was realized that the theory developed was not just concerned with outsourcing but rather the organizing of

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activities in different settings. Hence, the interdependencies, and the problems and 
opportunities associated with them, turned out to be of a more generic character than the 
study set out to investigate.

Although this account of how the study changed under way is not necessary for the ‘end 
product’ it explains how and why the study was designed the way it was. In addition, some 
of the things that were learned by the researcher may be lessons for others as well. In fact, 
these lessons may be regarded as conclusions from the study just as much as the ones on 
interdependencies in activity structures. The reason why an explicit account for the method 
is needed is that lessons of this kind cannot be derived from the case itself. Therefore, it is 
equally important to account for the method applied in an abductive case study as in other 
studies but for different reasons.

Final discussion

As has been revealed in this paper systematic combining is a cumbersome process. To a 
certain extent it has characteristics similar to the phenomena we study in industrial 
networks. In this final section we will bring up some of these similarities. One of them is 
related to the need for interaction. In line with other authors we have stressed the interactive 
nature of the case research process, in particular the need to go back and forth between 
research activities. Another important dimension of interaction is the one taking place 
between different researchers. In textbooks on research methodology one aspect of this 
interaction is dealt with. The importance of relating to previous research is strongly 
emphasised, especially when the analytical framework is developed in abductive case 
studies the framework is evolving over time. In this process the active interaction with 
other researchers becomes very important. Through discussions with colleagues we can get 
valuable influences in every part of a study, concerning the choice of research focus, the 
evolving framework, the empirical fieldwork, the analysis and the conclusions. Other 
researchers can contribute by pointing at problems, e.g. how arguments fail, in what ways 
the framework lacks rigor etc. They can be of help also by identifying possibilities in terms 
of how to proceed and how to interpret empirical data. In this way, interaction with other 
researchers is a major source of ‘discoveries’ in the research process. We should also take 
into consideration the fact that there is a certain connectedness among research studies. Few 
investigators work in research areas where no one else is active. Awareness of other 
researchers’ empirical observations may add to, or change, the interpretation of our own 
data. Hence, research colleagues and their projects are of major importance for our 
systematic combining. Therefore, we argue that the important parts of this interaction 
should be accounted for in other ways than the traditional acknowledgements made in the 
beginning of the report. In particular the learning effect should be pointed out as argued 
earlier.

Learning is the essence of every research effort. WHAT we learn is articulated in the theory 
that is developed. It is considered the far most important outcome of the research process. 
Therefore, it is strange that HOW we learn is only occasionally discussed in a research 
report. Learning takes place in the interplay between search and discovery. Where search is

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concerned the current framework is used to guide the research process in a cumulative manner. Discoveries, which cannot be planned in advance, force us to rethink the framework and thus to build further on another platform. These successive steps in the learning process are seldom presented to the reader in an explicit way. We are convinced that other researchers would benefit a great deal if these learning steps to a greater extent were discussed in the report. How we learn is a methodological consideration. We agree with Yin that the softer the research approach the harder it is to undertake. It is a little surprising, therefore, to find that many network studies are 'black-boxes' when it comes to accounting for the method. Huge efforts are spent on description and analyses of complex development processes and contexts. On the other hand, almost nothing is said about the complex research process behind the conclusions. Learning in the research society as a whole would be improved if more of the processes how we learn were revealed.

References


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