

Chapter 2

Understanding the Process of Empirical Business Studies: The Influence of Methodological Approaches

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Abstract This chapter provides an understanding of the consequences for empirical research projects, resulting from the methodological approach taken by researchers, and therefore serves as inspiration for researchers when planning, executing and reporting on such projects. In order to achieve that end, the chapter first sets out to offer an overview of different methodological approaches and how they impact researchers' interaction with the business world throughout the various phases of the research process. Second, some of the challenges and research roles arising from empirical research projects are discussed, taking into account how they influence researchers when interacting with the business world and working within different methodological approaches.

2.1 Introduction

Most research within the area of business studies includes empirical work, and as this often means engaging with firms it is relevant to look closer at the interaction between the researcher and the business world. In this type of setting a central part in determining the value of the research is the researcher's choice of methodological approach, and for the purpose of this chapter we subscribe to Arbner and Bjerke's (1997) methodological approaches: the analytical approach, the systems approach and the actors approach, which are also used in a number of subsequent chapters in this volume. Each approach relates to a specific operative paradigm with different ontology, epistemology and preferences for methodical procedures when undertaking research.

Diverse paradigms and methodical procedures have implications for how research processes are carried out. First, the research process can generally be seen

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to consist of the activities before data generation, during data generation and after data generation. Second, the research process has implications for how researchers relate to, and with, the business world in order to pursue specific research objectives. Third, the research process is assigned to the overall paradigmatic beliefs of specific methodological approaches. In particular, a methodological approach will guide the beliefs about best research practice, for example, maintaining a certain distance versus a deep involvement during the data generation.

The aim of this chapter is to discuss the consequences for empirical research projects, resulting from the methodological approach taken by researchers, and the challenges that researchers face when interacting with firms in order to generate empirical data. This includes discussing how some of these challenges can be tackled, taking into consideration that researchers working within the different methodological approaches are likely to face diverse challenges and take on different roles when interacting with the business world.

In order to achieve the chapter's aim, we start by describing the three phases of the research process (before data generation, during data generation and after data generation), and some of the activities related to each of the phases. The chapter then continues with a description and reflection on how the research process will play out, depending on which one of Arbnor and Bjerke's three methodological approaches the researcher is working with. In the final part of the chapter, the three approaches are contrasted and discussed in relation to each other in order to draw conclusions about the challenges they each impose on the empirical research process, and how they each affect the role of the researcher, as well as the role of businesspersons.

2.2 The Phases of the Research Process

The research process can be viewed as comprising of three distinct phases, as indicated in Fig. 2.1. The first phase is before the researcher enters the business world and consists of planning the study. Once planning is completed, the researcher can proceed to the second phase of data generation in the selected firms. This is followed by the third and final phase of the research process, where data analysis and communication of results are the main focus. For the sake of clarity the research process is depicted as a linear process, although in reality the phases are often overlapping and iterative.

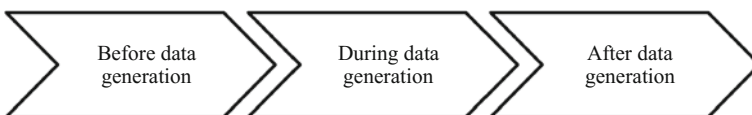


Fig. 2.1 The three phases of the research process

2.2.1 Before Data Generation

Closely engaged business research is likely to require access to, and the cooperation of, firms. The process of getting access to study a firm, and the hurdle this can be, is rarely discussed in the academic literature (Gummeson 1991). Gaining access can be pictured as a two-stage process, which is often described as ‘getting in’ physically and ‘getting on’ in terms of social access (Wolff 2010). The first task in this process is to convince the firm to open up to an outsider. In other words, the firm has to be willing to share information with the researcher and be willing to dedicate a certain amount of resources, usually in the form of its employees’ time, to participate in the research project. Gummeson (1991) provides a metaphor of an iceberg to illustrate accessing a firm. What is visible might be only 10% of an organization. In some situations a researcher might be satisfied with gaining access to this part of the information about a firm, whereas in others, researchers may wish to get more in-depth knowledge.

The methodical procedures the researcher intends to use in generating data in the organization influence the amount of resources the firm must dedicate to the research project, and can therefore play a role in whether or not access is granted. So, where a survey is chosen as the methodical procedure, the researcher may just be asking for half an hour of a single manager’s time to complete a questionnaire. A totally different level of access is needed when the researcher wants to do a month-long observation study. If it is not possible to achieve sufficient access within a particular organization, the researcher may choose not to enter at all, rather than accepting the drawbacks of limited access and the implications this will have for the data generation.

In overall terms, gaining access to a firm should be viewed as a negotiation process. The researcher needs something, namely, access to data from the firm. In order to obtain this, he or she has to offer something in return to improve his or her bargaining position. In relation to this, Wolff (2004, here cited from Flick 2006, p. 116) states that one of the problems of entering firms for the purpose of gathering data is that, ‘The research project cannot offer anything to the social system. At most, it can be functional. The researcher should take care not to make promises about the usefulness of the research for the social system.’ Although the researcher should try not to oversell the project, in our view it is possible for him or her to offer something that is of interest to the firm being studied. For instance, a researcher can bring new knowledge to the firm, at low or no cost, in exchange for access to data generation. Indeed, gaining a fresh perspective of the firm’s challenges and problems, from someone who is able to voice an opinion freely is perhaps one of the biggest bonuses a firm can obtain from cooperation with a researcher. Another way to make it more appealing for the firm to engage in cooperation with a researcher is to choose a research topic that the firm perceives to be of interest to them. This, however, turns the problem of access into not only a practical, but also a theoretical problem, where the researcher will often be forced to revise his or her research questions to make them relevant to the informants (Maaløe 2002).

Implicit in the discussion above is that negotiating entry to a firm is done through official channels by approaching senior management and obtaining formal approval of the researcher's presence in the organization. Within large firms, in particular, senior management is likely to worry about how the data will be used, and when published what image of the firm the results will project. The researcher can try to induce trust and offer a formal contract specifying rules and boundaries for how data will be published. However, unless the firm believes it will gain from opening its doors to the researcher, it may be easier for the senior management to play it safe and decline any invitation to cooperate. Thus, a different strategy for gaining access, even though it may be less ethical, is where the researcher draws on his or her personal network to get at least initial access to data generation within a firm. For example, approaching a marketing manager with whom the researcher has personal contact and asking for an interview—lasting an hour on a specific topic that is of interest to the manager—can be a much easier way to obtain access to data generation than convincing senior management to grant the researcher access to data generation within the firm. The chances are that the initial contact person will be willing to introduce the researcher to other individuals in the organization, and in this way data generation can unfold step-by-step without having to negotiate entry with the senior management of the organization. It is, however, our experience that it is also a strategy that can backfire, since the senior management may at some point become aware that research is being conducted inside the firm without official approval of entry. This may generate hostility and a demand that the researcher's presence in the firm be terminated and that the data generated cannot be used. Indeed, the strategy for entry should be thought through so that the researcher is well aware, from the start, of the risks and benefits of the different possibilities before engaging in data generation.

After the researcher has obtained access to the firm, he or she will face the challenge of how to reach the most relevant people within the organization and secure their willingness to participate in the research project. Of course, having a legitimate presence in the firm will open doors, but may not be enough to motivate members of the firm at all levels to actively and willingly contribute to data generation. Ensuring cooperation of the organization's members and data generation is the focus of the next section.

2.2.2 During Data Generation

Even though initial cooperation has been obtained in the first phase of the research process, the issue of access to the firm and its employees potentially requires attention throughout the entire data generation process. Having obtained formal access does not guarantee rapport with each individual informant; rather, every informant with his or her specific interest must be won over by the researcher (Laurila 1997). Thus, building interest in the research project, and trust in the researcher, is vital in order to motivate informants to engage in a thorough and open

interaction with the researcher. To this end, developing a relationship with gatekeepers in the form of key individuals within the organization can help the researcher in gaining access to multiple informants (Feldman et al. 2003). Key individuals can not only help promote the researcher's presence in the organization, but can also offer insights into which individuals may be particularly relevant to target, as informants. This can lead to a snowball effect, where informants are sampled by asking each of them to identify other individuals who they think would be useful to include in the study. Besides helping to identify knowledgeable informants, referrals can also increase the chance that the informant will take the time to engage with the researcher, if he or she knows that a colleague or a superior recommended him or her.

Another way of motivating informants to participate in the research project is to arrange the data generation in a way that inspires them (Laurila 1997), e.g. semi-structured interviews that permit the informant to elaborate on a subject relevant to his or her life in the organization, or to use creative methodical procedures that help the informant to articulate thoughts that are at a more subconscious level. An example of creative procedures is workshops, where one or a group of participants are given design tools with which to interact, such as drawing boards, Post-it notes and physical artifacts (discussed in greater detail in Chap. 7). Arousing interest in the subject, by letting the informant take the role of the expert who can help the researcher create new knowledge, can be another strategy for making it rewarding for informants to participate (Laurila 1997). Furthermore, data generation can also take place at an inter-organizational level. Giving informants the opportunity to interact with other industry players, discussing the nature of the industry and its future can, in our experience, be a powerful motivator to get busy executives to participate for a full day in events such as a focus-group discussion, where they actually feel that they get as much out of it as the researcher does.

2.2.3 After Data Generation

When the data generation phase is finalized and the researcher withdraws from the firm, the focus is on how to analyze and present the data. As stated, it is likely that the firm engages in the research project with the expectation that the researcher gives something back to the firm in exchange for the information provided. This can, for example, be in the form of presentations of results from the study, or workshops organized in order to contribute to the firm's learning process. However, this way of giving back to the firm might cause a potential conflict of interest between the researcher and the firm concerning the time horizon for presenting the project results. The firm may expect results to be ready shortly after data generation is finished, whilst the researcher wants to have time to make an in-depth analysis before presenting the findings. This is more likely to arise as a conflict if the firm is inexperienced in engaging in research projects, and sees the researcher as a consultant rather than as a scientist. It is therefore up to the researcher to communicate

clearly, and before entering the firm, exactly when and how knowledge dissemination will take place. By clearly communicating the advantages of a more in-depth scientific approach, the researcher is more likely to convince the firm that good, thorough research takes time. However, in many cases, even if the firm has to wait for the results, there may be a spin-off in the form of a reflection process following participation in, e.g., interviews and workshops, and this may be of immediate benefit to the organization.

The issues above are considered at a generic level. There is, however, a substantial difference in how the three phases of the research process are approached by researchers depending upon their ontological and epistemological stance. The influence of the researcher's operating paradigm and methodological approach on the empirical research process is the focus of the next section.

2.3 Three Methodological Approaches for Empirical Business Research

In a research project it is important to remember that the choice of methodological approach and how the entire research process is planned and conducted must fit both the problem under consideration and the ultimate presumptions held by the researcher (Arbnor and Bjerke 1997). Indeed, the analytical, systems and actors approaches of Arbnor and Bjerke (1997) each have diverse suggestions as to which methodical procedures should be used, and differences in how they see the role of the researcher in relation to the empirical field. However, across the three approaches there are some common groups of procedures for generating data, e.g., observations, interviews and experiments (Arbnor and Bjerke 1997). These procedures tend to be applied differently depending on the methodological approach of the researcher. In the following we argue that how the research process plays out depends to a large extent on which one of Arbnor and Bjerke's three methodological approaches the researcher is working within.

2.3.1 Methodical Procedures and the Research Process in the Analytical Approach

The analytical approach derives from the natural science disciplines, and researchers who apply it perceive reality as objective, independent of individuals and made up by the sum of autonomous units of knowledge (Arbnor and Bjerke 1997). In business studies this approach is preferred if the aim is to generalize about certain behaviors; for instance, whether firms located in one industry are more innovative than firms located in another industry, or if women are less likely to become entrepreneurs than men. In order to uncover the reality of a specific topic,

researchers following the analytical approach seek causal relations between the autonomous units of knowledge to explain the underlying rationales that create and form reality (Arbnor and Bjerke 1997). To reach that, and to create objective knowledge that is generalizable, the researcher goes through all or some of these steps, depending on the research purpose:

To determine a problem	To frame and delimit the problem at hand
To describe	To measure the existence of a phenomenon or phenomena
To explain	To seek causal relations between phenomena
To forecast	To test the generalizability of explanations
To guide	To create change by drawing on existing explanations and theories

Characteristically, the process captured within these five steps commences from a fact and ends with a new fact, which can lead to repeating the whole process (Arbnor and Bjerke 1997). This cyclical order can have an inductive or a deductive point of departure, as it either starts with an empirical fact, which is being challenged by theoretical knowledge, or it starts with a fact from theory that can be confronted with empirical data. Furthermore, researchers can decide to investigate reality in one step, where the research process is determined and delimited from the beginning, or in several steps, where one step leads to another in an unplanned manner. The latter is often chosen if the field of research is complex, or if it is new to the researcher and the research community (Arbnor and Bjerke 1997). However, despite the process, there is a clear distinction between the three research phases—before data generation, during data generation and after data generation—as well as a clear distance between the researcher and the business world when applying the analytical approach.

2.3.1.1 Before Data Generation

In the analytical approach the research problem and the research question are formulated at the start of the research process, concurrent with deciding upon which type of research to conduct. Should it be explorative, descriptive or explanatory? The nature of the study has an impact on how to structure the research process and what to aim for as research output, including types of generalization (Flick 2010). Put simply, an explorative study in the analytical approach, aims at formulating hypotheses, a descriptive study seeks to measure a given phenomenon relevant for the chosen population, and an explanatory study pursues the testing of suggested cause-and-effect relations in order to explain certain invariances (Arbnor and Bjerke 1997). In the two latter cases the researcher must decide to either make a census, or to take a representative sample from the chosen population, in order to generate objective knowledge that is generalizable. In the wake of this, the researcher’s key challenge is to convince one or more firms to participate in, e.g., a survey, in order to get a representative sample of informants that will permit statistical generalizations about the population of interest.

It is also important to remember that to a great extent, the type of study needed dictates the methodical procedures used. If an explorative study is chosen, primary data can be generated through, for example, observations, interviews and surveys. In descriptive studies, surveys are the prime methodical procedure, whilst in an explanatory study; experiments are key (Arbnor and Bjerke 1997). In the design of all large-scale studies it is advisable to conduct a pilot study that includes testing how well the problem of investigation is delimited, the relevance and feasibility of the research plan, and the usability of the chosen methodical procedures for generating data.

2.3.1.2 During Data Generation

In this second phase, where the researcher interacts with the firm, researchers following the analytical approach should make their implicit values explicit, in order to avoid personal biases in the data generation, as well as to comply with the goal of producing objective knowledge that is generalizable (Arbnor and Bjerke 1997). The latter can be achieved by choosing or adapting specific methodical procedures that allow the researcher to maintain a so-called arm's-length distance from the firm being studied. To this end, surveys and experiments, are often used in the analytical approach, whilst interviews and observations are applied to a lesser extent.

In the case of experiments, researchers aim at reproducing causality by measuring the effect of certain stimuli on an experimental group, and comparing that with the effect of a control group that has not been exposed to stimuli (Arbnor and Bjerke 1997). In these experiments, whether they are field-based or lab-based, the researcher maintains an arm's-length distance from the unit of analysis (discussed further in Chap. 10). In the same vein, surveys and interviews are based on a standardized questionnaire or a structured interview guide, both with the majority of questions being scaled and closed-ended, i.e., where the options for answers are fixed. This is done in order to avoid the interviewer effect and the panel effect, and also makes subsequent coding simple and reliable (Arbnor and Bjerke 1997).

The interviewer effect enters research when the informants are being unconsciously influenced or even manipulated by the interviewer, which then results in biased answers (Arbnor and Bjerke 1997). The panel effect appears when the same group of informants is interviewed again and again throughout the research project and consequently become a group of experts that no longer are representative of the population (Arbnor and Bjerke 1997). Particularly in cases of panel effect, researchers following the analytical approach will have problems meeting the goal of producing objective and generalizable knowledge.

2.3.1.3 After Data Generation

In the last phase of the research process the generated data from phase two will be analyzed through statistical procedures, and conclusions will be drawn. However, this process and its outcome depend to a great extent on the nature of the study for which the data has been generated: (1) if the study has been explorative, the typical outcome of the research process is the formulation of several hypotheses for future studies, (2) if the study has been descriptive, and thereby aimed at measuring a given phenomenon relevant for a chosen population, the outcome will be a conclusion, comparing the results obtained with established theory, and (3) if the study has been explanatory, the outcome will be a verification or falsification of hypotheses and their proposed causalities, creating and forming reality. The entire work of undertaking the analyses and writing the conclusions is completed without any interference from the business world, as this might jeopardize the ambition within the analytical approach of building objective knowledge that is independent of human beings (Arbnor and Bjerke 1997).

Overall, businesspersons who seek generalizable knowledge that, for instance, informs them about the buying behavior of their customers or the well-being of their employees will favor research conducted along the principles of the analytical approach. Using this approach, businesspersons will be able to understand which factors cause certain effects within, or outside, their firm. On the other hand, the analytical approach does not provide them with a detailed understanding of the reasons and motivations underlying the identified behaviors. In short, it has problems explaining a phenomenon that cannot be easily codified.

2.3.2 *Methodical Procedures and the Research Process in the Systems Approach*

As with the analytical approach, researchers within the systems approach believe in an objective reality; but in contrast, they focus their study on the positive and negative synergies created via relations between interdependent parts in a system, in order to create a holistic picture of the subject matter (Arbnor and Bjerke 1997). Relations in this context can be structures, behaviors, objectives etc., and a system can be a firm, a network, a society etc. Examples of typical research topics within the systems approach are the behavior that exists within a network of suppliers, or the synergies evolving from the interaction between departments in a firm. In this way, obtaining a holistic picture and revealing cross-functional and inter-organizational relations and contingencies are of particular interest to both researchers and the business world.

According to the systems approach, systems are characterized by finality. This means that different inputs can lead to the same output in contrast to cause-and-effect relations, where there is a preference for one input over the others.

Finality relations exist when (1) one believes that a given action is the best or most desired means to an end, and (2) the belief, desire, action and end, are related by custom, policy or value (Arbnor and Bjerke 1997). Importantly, finality in terms of producer-product relations should not be confused with cause-and-effect relations as found in the analytical approach. According to the systems approach there is not necessarily a temporal separation between cause and effect, and cause might be subsequent to effect. Furthermore, system relations are often characterized by equifinality, implying that there might be alternative producers of a certain product, or alternative products resulting from one producer (Arbnor and Bjerke 1997). Indeed, understanding these relations is a key concern in the systems approach and it can take place with rising levels of ambition (Arbnor and Bjerke 1997):

To determine the type of system	To categorize the object of study
To describe	To frame and delimit the problem at hand
To determine relations	To trace relations among the parts of the system
To forecast	To decide which relations of the system need changing in order to solve the problem
To guide	To implement the solution to the problem

Compared with the analytical approach, the research process in the systems approach is more iterative, and the distinction between the three overall research phases, before data generation, during data generation and after data generation, is less obvious for the researcher, which is illustrated in the following.

2.3.2.1 Before Data Generation

Since determining relations in a system is the main objective in the systems approach, formulating one or more research problems also involves formulating possible relations and defining the system under study a priori (Arbnor and Bjerke 1997), as well as considering which relations will be subject to the greatest focus. The research problems may be deduced from existing theory, or induced from data, meaning that they are developed and refined upon data generation. Thus, while the research process typically starts by formulating a research problem, the systems researcher most often approaches the system with a loose, rather than a complete understanding of it. In this way, the particular research problem can be formed by engaging with the business world, which also contributes to shaping how the researcher understands the field of study (Arbnor and Bjerke 1997). In fact, determining a system is an ongoing process that takes place throughout the entire research process. Therefore, systems researchers will often revise the research problem during the research process, which clearly distinguishes the systems approach from the linear analytical approach.

When deciding on methodical procedures for addressing the research problem, it is important to allow for improvisation in response to signals revealed through

interaction with the system, rather than following rigid plans (Arbnor and Bjerke 1997). Therefore, choosing the correct methodical procedures in relation to the area of study from the beginning of the research process is difficult, and is not seen as a guarantee of a successful study. Rather, the research process relies on pragmatism, trial-and-error and awareness of the need to improvise (Chelariu et al. 2002).

2.3.2.2 During Data Generation

As the above indicated, the beginning of the data generation phase does not mean that no further revisions can be made to the research project. As mentioned, a central role of the researcher, once data generation has commenced, is to be alert and aware of possible redirections of the research problem, the theoretical viewpoint and the methodical procedures (Arbnor and Bjerke 1997). This refers to the abductive approach, where a constant dialogue between theory and the business world, and between inductive and deductive reasoning, refines and redirects how the researcher engages with, and understands, the system (Dubois and Gadde 2002). For an explanation of abduction, see Chap. 3.

In terms of methodical procedures, Arbnor and Bjerke (1997) argue that a central procedure for grasping the complexity of relations within systems is case studies, as they can capture the historical developments in the relations constituting the systems. This procedure often relies on a combination of interviews and observations (discussed in Chaps. 6 and 9), as well as on secondary data from the system under study. However, understanding the history of a system through interviews and observations, i.e. reconstructing the process of evolution via informant memories, poses a number of problems related to data quality. Data quality relies on how data sources are interpreted, how fragmented the informants' memories are and how data sources may be embedded in specific personal or institutional characteristics (Arbnor and Bjerke 1997). Therefore, triangulation of methodical procedures and data, as well as being selective and critical before applying primary and secondary data, is necessary.

To further determine relations in a system, ongoing interaction through interviews and observations with actors from the system being studied is effective (Arbnor and Bjerke 1997). Contrary to the analytical approach, keeping a certain distance from the business world such that the researcher can remain objective is not the ideal. Instead, objectivity, for the systems researcher, is obtained by staying in the system for as long as possible in order to generate data from as many sources as possible (Arbnor and Bjerke 1997). Indeed, objectivity is the result of the interaction between the entities of the system, for which reason closeness to the system and greater knowledge of it is an effective means of achieving objectivity. In this way, a higher degree of understanding of the finality of the relations forming the system can be obtained.

2.3.2.3 After Data Generation

During this phase the focus is on analyzing and presenting the generated data. This can take place through a number of diverse procedures, for example, a content analysis (King 1994) or a grid analysis (Gammack and Stephens 1994; Miles and Huberman 1994), where data is categorized in accordance with several themes. These themes can be derived from different sources, including theory or generated data. Using this approach, systems researchers may be able to put forward a number of scenarios in order to come up with solutions that can deal with possible dys-functionalities in a given system. This highlights the managerial relevance of systems research—if businesspersons are keen on getting detailed knowledge about the relations and positive and negative synergies in their firm, or between their firm and its environment, to strengthen its organization or market position, the systems approach is relevant.

However, in this process it is vital to bear in mind that the relations found by systems researchers are not statistically generalizable. They are only valid for the specific system being studied, although they may be relevant for other groups of systems (Arbnor and Bjerke 1997). Rather, the strength of the systems approach lies in understanding the multiple relations and their positive and negative synergies, which make up the system. This should be emphasized when reporting on the research findings.

2.3.3 *Methodical Procedures and the Research Process in the Actors Approach*

The actors approach operates under the assumption that reality is a social construct framed through enactment and language. The term actors is used to emphasize a view of human beings as acting, reflecting and creating individuals, rather than being passive receivers of external stimuli (Arbnor and Bjerke 1994). Researchers subscribing to this methodological approach are interested in understanding the social construction of the actors they study, rather than an objective reality. The presumption of a socially constructed reality places researchers working within the actors approach in a situation that is distinctly different from that of researchers working within the analytical or systems approaches. Here researchers try, in an interactive manner, to reconstruct the realities that exist in the minds of the actors that they wish to understand (Guba and Lincoln 1994). Indeed, the objective is ‘to describe dialectical relations, which means trying to understand relations among interpretations made by various actors in relation to different levels of meaning structures’ (Arbnor and Bjerke 1997, p. 58). The process of developing understanding consists of three steps:

Diagnostic pre-understanding	To bridge the difference between the actors' and the researcher's view of reality through developing a common language
Understanding	To achieve a joint reflection and interpretation process between the researcher and the actors
Post-understanding	To relate the developed language to the factual and the actual

Diagnostic pre-understanding is not the same as a general pre-understanding. Where a general pre-understanding is related to theory and experiences that the researcher brings to the study, diagnostic pre-understanding is developed in a specific research situation. The purpose of the diagnostic pre-understanding is to bridge the picture of reality held by the researcher and that of the actors (Arbnor and Bjerke 1997; Gummesson 1991). Through the development of a common language, this pre-understanding serves as a starting point for further dialog between the researcher and the actors. In the second step, referred to as understanding, the actors and the researcher engage in a joint reflection and interpretation process and try to find patterns that are based on the actors' everyday language. This process increases the capacity of both the actors and the researcher, thereby increasing the actors' self-understanding and permitting the researcher to develop his or her scientific language. The third step known as post-understanding is described by Arbnor and Bjerke (1997) as, a process in which the language developed is related to both theory and to what is factual and actual.

Below, the research process depicted in Fig. 2.1 is described and reflected on from the perspective of the actors approach. For the sake of consistency, the research process is divided into three clearly separated phases; however, in the actors approach it will in fact be an iterative and circular process, rather than the linear process implied by separate phases.

2.3.3.1 Before Data Generation

During this phase the diagnostic pre-understanding is established as the researcher and the actors are trying to build a common ground. This also means that the purpose of the study and the research design are not necessarily finalized during this phase. In fact, they may not be complete until the study is finished, since research questions and research design may evolve throughout the study, as the researcher and the actors, together, reach a better understanding of what is interesting to focus on. However, Arbnor and Bjerke (1997) emphasize that this is not the same as saying that a study conducted within the actors approach is completely without purpose. Even if the research purpose may not be defined a priori, the study is controlled by what can be called background visions, meaning that the researcher has something in his background that initiates an interest in an organization or a research theme, which then becomes increasingly concrete as the study proceeds (Arbnor and Bjerke 1997). So, as the researcher enters the field, he or she becomes sensitized to, and more conscious of, what is an interesting focus for the study.

2.3.3.2 During Data Generation

Whilst research questions should ideally be formulated as clearly as possible, it is in the nature of the actors approach that they will develop as the research process goes along, and as the researcher familiarizes him or herself with the field of interest. Indeed, as one becomes more knowledgeable about the field of study, it becomes easier to formulate clear research questions, and to choose the most accurate methodical procedures for data generation. Following on from this, the actors approach is characterized by hermeneutical and dialectical tactics, where qualitative methodical procedures such as interviews, observations and document studies are preferred. According to Arbnor and Bjerke (1997), 'dialectics is basically the study of the inherent contradictions in phenomena' (p. 161) and 'dialogue is the basis of dialectics' (p. 160). Thus, the most important way to knowledge creation in the actors approach, is an interactive process of asking and telling, until a common understanding has been reached between the researcher and the actors. A prerequisite for this tool to work is the willingness of the researcher to ask honest questions, which necessitates humility, a genuine curiosity and acknowledging that one knows nothing.

Furthermore, in order to reach a deep understanding, the researcher must engage him or herself in the situation of the actors being studied. As the aim is to get below the surface of the actors, a certain degree of engagement and trust between the researcher and the actors is required, as lack of trust may prevent the actors from revealing their real thoughts or interpretation of a phenomenon. So, within the actors approach, the ideal is not a neutral and remote researcher; rather, the researcher must engage him or herself with the actors in order to understand their reality through creating a common language.

2.3.3.3 After Data Generation

In the actors approach, knowledge creation is a dialectic process in which the ultimate goal is an ongoing dialog between the researcher and the actors, so as to improve the ability of the actors to solve their own problems (Arbnor and Bjerke 1997). Knowledge comes about through a process of learning and unlearning during which the researcher alternates between engaging and distancing him or herself from the field of study. Engagement is where interaction between the actors and the researcher takes place and 'the actors bring data and information to the creators of knowledge through linguistically externalized descriptions' (Arbnor and Bjerke 1997, p. 195). Through dialog the researcher seeks to capture the subjective logic of the actors being studied. On the other hand, the dissociation phase is where the researcher withdraws from the field of study to undertake validity checking, by relating the actor's own interpretation to other sources and to his, or her, own interpretation of reasonableness by the use of meta-theories. This act of temporarily distancing also helps the researcher not to lose him or herself in the field of study and 'go native'. This phase of dissociation is followed by a new engagement phase

where the researcher seeks to validate the interpretations made in the dissociation phase by feeding them back to the informants. Consequently, data generation and data analysis are not distinctly separate phases as in the analytical approach, but a circular and ongoing dialectical process of co-created awareness through all three steps of pre-understanding, understanding and post-understanding.

In addition to these considerations, researchers following the actors approach acknowledge that facts are laden with theory, since facts are only facts within a certain theoretical framework (Guba 1990; Mir and Watson 2000). This means that the ontological position held by a researcher influences his or her findings and that researchers are therefore never objective or value-neutral. To underline that data is not objective in the sense claimed by the analytical approach; data is referred to as constructed rather than generated. Thus, since data are never theoretically neutral, it is vital that the researcher makes his or her a priori assumptions transparent. Reflection on, and openness about, the kind of pre-understanding that a researcher brings to the field permits other researchers to interpret the results in light of this.

Reflecting on the actors approach from a managerial perspective, it is important that businesspersons understand, from the very start of the research process, what they can expect to gain from a research project conducted on the basis of the actors approach. Likewise it needs to be clear what businesspersons are expected to contribute in the form of resources and types of cooperation with the researcher. Moreover, results from a research project conducted on the basis of the actors approach are not clear-cut and easily implementable solutions. Neither should businesspersons expect quantitative and statistically generalizable knowledge that can provide answers with respect to cause-and-effect relations, e.g., the relation between the advertising budget and market share. Benefiting from research collaboration with an actors-approach researcher requires a high degree of effort from businesspersons, as insights are co-created with the researcher through a dialectic process from the beginning to the end of the project.

2.4 Objectives, Challenges and Roles in the Research Process

As discussed, the analytical, systems and actors approaches each have distinct ways of viewing reality as well as distinct processes for defining research problems and for researching them (Arbnor and Bjerke 1997). This has implications for the undertaking of empirical business studies. While the aim is not to claim that one methodological approach is superior to the others, it is essential to underline that each of the approaches not only produces different outcomes, but also causes different challenges throughout the three phases of the research process, and influences which roles the researcher as well as the businessperson will play when interacting with one another. Introduced below are the roles of the researcher and the businessperson in each of the methodological approaches. Table 2.1 follows

Table 2.1 Activities, objectives and roles in the research process

	<i>Before data generation</i>	<i>During data generation</i>	<i>After data generation</i>
The analytical approach			
Activities	Formulate a research problem	Generate data mainly through surveys, direct observations and experiments	Analyze data preferably through quantitative procedures
	Plan the study		
	Describe and adapt methodical procedures		
	Negotiate access to the field		
Objectives	Formulate research plan and hypotheses	Have an ‘arm’s-length’ distance to the unit of analysis	Verify or falsify hypotheses
			Produce objective, statistically generalizable knowledge
Role of researchers	Complete observer		
Role of businesspersons	Study object and data provider		
The systems approach			
Activities	Determine the type of system	Generate data by the use of multiple methodical procedures including observations and interviews	Control finality relations in the system through coding and analysis of data
	Formulate possible finality relations based on theory		
	Negotiate access to the system under investigation		
Objectives	Develop a loose understanding of the system	Determine relations in a system by reproducing finality relations through abduction	Understand the multiple relations of a system and their positive and negative synergies
Role of researchers	Participant-as-observer or observer-as-participant		
Role of businesspersons	Facilitator of system understanding		
The actors approach			
Activities	Formulate background visions to guide the study	Generate data through hermeneutical and dialectical tactics, preferably by the use of interviews, observations and document studies	Develop knowledge through an ongoing dialog between the researcher and the actors
	Negotiate access to the field		

(continued)

Table 2.1 (continued)

	<i>Before data generation</i>	<i>During data generation</i>	<i>After data generation</i>
Objectives	Make a priori theoretical assumptions transparent	Engage in a close and meaningful interaction with the actors being studied	Reproduce the meaning of the actors studied
			Make a socially constructed reality visible
			Improve the actors' ability to solve their own problems
Role of researchers	Complete participant or participant-as-observer		
Role of businesspersons	Co-creator		

Adapted from Arbnor and Bjerke (1997)

this, where objectives, activities and roles in the analytical, systems, and actors approaches are outlined across the three research phases. The section concludes with a comparison and discussion of the challenges faced in the research process, within each of the three methodological approaches.

2.4.1 Roles in the Research Process

When starting a research project, it is important for the researcher to reflect on his or her role in relation to the chosen methodological approach in order to increase transparency and validity. This can be done by drawing on the four observer roles outlined by Gold (1958): complete participant, participant-as-observer, observer-as-participant and complete observer (see Chap. 9 for an in-depth discussion of the use of these roles in an observation context).

The complete participant generates data as if he or she were an ordinary member of the unit of analysis, and does this without revealing his or her identity and agenda (Gold 1958). This allows the researcher to be close to, and to interfere with the field of study; thereby obtaining data that might otherwise not be distributed. On the other hand, applying this research role might raise a question concerning the study's objectivity, since it is difficult to separate the researcher from what is being researched. Different from the complete participant is the participant-as-observer, who interferes with the unit of analysis without a hidden identity and agenda (Gold 1958). However, despite this change in the research role, the main challenge remains the same, because the researcher might still get too close and become too involved with the field of study, which can affect the objectivity of the study in a negative manner. On the positive side, by applying this research role, the researcher can more easily engage with informants compared with a researcher who maintains

a distance. The third research role, observer-as-participant, prescribes that the researcher interferes with the unit of analysis in short and planned episodes (Gold 1958). Working under such circumstances it can be difficult to grasp all aspects of relevance for the study, but at the same time the issue of whether or not the researcher gets too close to the unit of analysis is no longer urgent, due to the integrated phases of distance throughout the data generation process. Finally, the complete observer maintains a distance from the unit of analysis and does not interfere with it (Gold 1958). This removes the problem of the researcher being too close and too involved with the field of study. Nonetheless it increases the risk of the researcher becoming too ethnocentric, and the possibility of misinterpretation.

The choice between these four research roles is not made in isolation. Instead, it often takes place within a process of negotiation involving the researcher, his or her methodological approach and the specific unit of analysis. As in the case with the researcher, the role of the businesspersons involved in a study will be different, depending on within which of Arbnor and Bjerke's three methodological approaches the research process is anchored. Whilst the researcher undertakes the research process with a conscious appreciation of how the methodological approach influences the research process, it is not likely that the businessperson thinks in this way. Paradigms, methodological approaches and issues of validity and reliability in the research process are probably not concerns for the businessperson. However, even if the businessperson is not conscious of his or her paradigmatic standpoint, he or she is still likely to have expectations regarding what can be gained in return from engaging in the research project. These expectations may be easy or difficult to meet depending on the degree of fit between the methodological approach of the researcher and the expectations of the businessperson. For example, a research output from a study conducted within the actors approach is not compatible with a businessperson's expectations of statistically generalizable results. A businessperson is also likely to have expectations about what role he or she will play throughout the research process, e.g., the degree of involvement in the data generation. This implies that it is the responsibility of the researcher to explain to the businessperson within which methodological approach the research project is anchored, and what this means for the role of the businessperson throughout the research process. The following discusses the more precise roles of researchers and businesspersons in relation to the three methodological approaches.

In the context of Arbnor and Bjerke's (1997) methodological approaches, a researcher working in accordance with the analytical approach, and aiming to maintain distance from the field of study is most likely to adopt the role of a complete observer. The risks of becoming too ethnocentric and of potential misinterpretation that are associated with this research role, can be addressed by the researcher through the use of, for example, desk research, expert interviews with actors who are not directly involved in the specific subject matter, and by relying on investigator and theoretical triangulation. By maintaining distance from the informants the role of the businessperson in the analytical approach will be that of a study object and a data provider.

In a situation where the researcher subscribes to the systems approach, he or she will probably take either the role of participant-as-observer, or observer-as-participant, depending on the degree of objectivity being pursued. By using these roles, the researcher can, without complete interference, uncover the major parts of a system and determine its relations. Here, objectivity is achieved by combining dialog and distance in the research process, in order to weed out biased data. In this process the businessperson plays a central role in facilitating the researcher's understanding of the system by providing historical data and participating in the dialog, which is a prerequisite for the abductive process that constitutes the core of the systems approach.

Finally, researchers following the actors approach, establish a close and embedded relation with the study field, and are likely to choose the role of a complete participant or participant-as-observer. In this case, the researcher gets close to the unit of analysis and either conceals or reveals his or her agenda and identity to the informants. The risk here is that only experiences that suit the outlook held by the researcher will be observed. In order to avoid this problem of selective observation, meta-theory, empirical reality and ultimate presumptions are put up against each other in a spiral fashion, using hermeneutical and dialectical tactics. To keep track of the empirical reality, including the ultimate presumptions of the researcher, and how they might change, the keeping of a field diary is advisable. In a field diary researchers can note their observations and thoughts throughout the research process, which will allow them to trace back and reflect on certain changes, and become knowledgeable about how such changes might influence the research findings. The role of the businessperson in the actors approach can be characterized as co-creator, since the actor is closely involved in problem identification, data generation and data interpretation throughout the research process.

In the wake of this, the following discusses, in greater detail, the challenges that researchers may face when working within the three methodological approaches and interacting with the business world. In line with the structure of Fig. 2.1, we compare and discuss challenges that researchers may face before, during and after data generation.

2.4.2 Challenges in the Research Process

2.4.2.1 Before Data Generation

As described earlier, the main task for the researcher in the first phase of the research process is to negotiate entry to the firms where the empirical study is to be conducted. When looking at how and what to be aware of, in the process of negotiating access to the business world, the three methodological approaches differ. For analytical researchers the main objective is to gain access to a representative sample of firms that will permit statistical generalization of results to the

population of interest. So here, the researcher's key challenge is to convince a large number of firms to participate in, for example, a survey. However, when experiments are used, the analytical researcher has to exercise more care in motivating firms to allocate their resources, since experiments typically require more involvement on the part of the firms than the answering of a survey. This motivational effort can often be eased, as the analytical researcher is usually in a position to describe exactly how a specific subject matter will be studied and what is expected from the actors involved.

In contrast, since research conducted from a systems or an actors approach is often not fully planned in advance, a complete disposition of methodical procedures can be difficult to specify beforehand. Even if this is accepted by the researcher as a working condition, it may create a challenge when he or she has to sell the research project to a potential firm, as firms are likely to expect researchers to be experts within a certain theoretical area. So in some instances this vagueness in describing the exact purpose and design of the study could lead firms to question the credibility of the researcher. However, this can also work in the opposite direction, since it gives firms the chance to influence the research project in a particular manner, favoring their own agenda, and therefore acting as a motivator for, rather than a barrier to, cooperation. Furthermore, according to Wolff (2010), it is often the case that informants rarely ask about the detailed content of a research project, but may take their cues for the quality of the research project from other aspects, such as the format of the presentation of the project, the personality of the researcher and the reputation of the research institution.

With respect to the above, and in line with the goal of the actors approach, close and deep interaction between the researcher and the actors being studied is required. So when negotiating entry to a potential firm, the actors-approach researcher needs to convince the firm that it should commit a large amount of time and resources to the research project. Given that not all firms will agree to that, this could influence the selection of firms. Thus, there is a danger that the main sampling criteria may be a willingness to commit resources, rather than the case's theoretical relevance. The same can be a challenge for the systems researcher who has a preference for working with case studies, in order to be able to study a phenomenon in its entirety.

2.4.2.2 During Data Generation

In the data generation phase, the three methodological approaches have a preference for different methodical procedures, which gives rise to diverse sets of challenges.

In the analytical approach, surveys and experiments are the main methodical procedures, along with, to a lesser extent, standardized and structured interviews and observations. Besides the challenge of securing objective data, a particular challenge may arise in the case of field experiments. Conducting such experiments in business studies is challenging, because the possibilities for controlling variables are much more limited than in the controlled environment of a laboratory experiment. The analytical researcher also makes extensive use of secondary data.

However, this often gives rise to the challenge of evaluating the compatibility and trustworthiness of data that has been generated for another purpose, and perhaps relying on, for example, different scales or definitions than those that are appropriate for the present study.

Researchers subscribing to the systems approach also use secondary data in their studies, although differently than in the case within the analytical approach. Where the analytical researcher believes that knowledge creation should be cumulative, and uses secondary data as input to formulate a hypothesis for the current study, the systems researcher presumes that systems differ from each other. Hence, data from one system, i.e. a firm, is not necessarily transferable to another system. However, secondary data from within the system being studied, i.e. firm statistics, reports or minutes, are used extensively as a means of studying the history of that particular system. Consequently, the challenge here is that the researcher is dependent on the memory of the firm, its capacity for knowledge management and its willingness to invest in information management systems.

The researcher working in the actors approach generates data in a socially constructed reality by engaging in a dialog with actors on equal terms; by talking, listening, questioning, observing and discussing. The challenge for the researcher is that this approach demands excellent conversation and listening skills, including a mastery of the art of engaging honestly in a conversation, rather than merely looking to confirm preconceived interpretations (Arbnor and Bjerke 1997). Another challenge may arise, given that the objective of the researcher in the actors approach is also to change the actors. This could result in the researcher receiving a different degree of cooperation from actors who stand to gain from the change in the firm, than from those who might stand to lose from it. Thus, an honest and open dialog is dependent not only on the researcher, but also on the informant. Whilst honesty cannot be bought, there are always informants who are not willing to elaborate on some of the issues raised by the researcher (Laurila 1997). Shenton (2004) discusses tactics for encouraging informants to speak freely. These might include making sure that informants have the right to refuse to participate and withdraw from the study if they wish. Reminding the informant at the beginning of an interview that there are no right or wrong answers, and that anonymity is guaranteed are other tactics. Underlining the independence of the researcher from the management of the organization may also be helpful in establishing rapport and convincing informants that they can speak freely without fear of losing credibility in the eyes of the management (Shenton 2004).

2.4.2.3 After Data Generation

The main activities of this phase are data analysis and feedback to informants on the results of the study. A main challenge here can be that the researcher's role might be confused with that of a consultant. The consequence of this can be expectations of output from the research process that go beyond what is usually considered to be scientific work. Whilst a researcher normally focuses on understanding, describing

and explaining the business world, a consultant is expected to change it (Arbner and Bjerke 1997). If the firm measures and judges the researcher on the same criteria as a consultant, and expects unambiguous answers and results that are easy to implement in the organization, it may be disappointed. This may be less of a challenge for the researcher working from the analytical approach compared with the researcher working within the systems and actors approaches, since the objective in the analytical approach is to produce objective and statistically generalizable results. However, even though the researcher working within the analytical approach may give feedback to the firms that participated in, e.g. a survey, such feedback is not likely to be personalized and individualized for each firm; instead, a summarized picture of the main results will be provided.

The time horizons of the researcher and the firm are also likely to differ. The firm has an interest in getting the results as quickly as possible, in order to integrate them into its decision making. The researcher, on the other hand, is interested in digging deep into the data and prefers a time horizon that permits a thorough analysis. To overcome this difference in expectations of how the research process should unfold, it is up to the researcher to make the terms of cooperation in the research process clear, right from the start. It is perhaps, particularly important for the researcher working within the systems and the actors approaches to bear this in mind. The researcher working within the systems approach often applies multiple methodical procedures and alternates between theory and data, making data analysis a complex and lengthy affair. The researcher working within the actors approach has a preference for qualitative data. Given that analysis of qualitative data is often more time-consuming than for quantitative data, this could test the patience of the firm if they expect quick results. On the other hand, since the researcher in the actors approach is inclined to include the actors being studied, in the interpretation of the data, the actors may not perceive the time between data generation and communication of research findings as being drawn out.

Finally, regardless of the methodological approach, researchers should bear in mind that they and their research can be used to promote and legitimize political agendas. A way to lower the possibility of this happening is to sign an agreement with, for example, the management of the firm, in which the research is taking place. The agreement should, for example, include paragraphs on the purpose of the research, the methodical procedures being used to generate data, the legal and economic relations between the researcher and the firm, and how and by whom the research results will be published. Depending on the chosen research role, this agreement should be made public to the informants so that they know the agenda of the research project. That can help minimize the possibility of any misunderstanding and speculation.

2.5 Conclusion

Interacting with the business world in order to generate empirical data is relevant and necessary for most researchers in the field of business studies, and it is both one of the most rewarding, as well as most challenging parts of research. Depending on whether the researcher is working within the analytical, systems or actors approach, he or she will have different ideas for how to orchestrate the research process and how to interact with the business world. In the wake of this, the main contribution of the chapter is to discuss the consequences of researchers' methodological approach for empirical research projects, and the challenges that researchers face when interacting with firms in order to generate empirical data.

To help researchers become more aware of the consequences of their methodological choices, Table 2.1 provides an overview of how the three methodological approaches of Arbnor and Bjerke differ in the three research phases, with regard to the activities the researcher undertakes, the objectives for doing so and the way it is done. Based on the underlying ontology and epistemology of the chosen methodological approach, the researcher will have different ambitions for knowledge creation, which influence the way he or she interacts with the business world. Furthermore, the choice of methodological approach has consequences for the role that the researcher adopts. Whilst this may be obvious, it is perhaps less clear that the businessperson, who is the source of empirical data, is also expected to play diverse roles during the interaction with the researcher, depending on which methodological approach that is adopted in the research process. Indeed, thinking through the consequences that the choice of methodological approach has on the researcher's interaction with the business world makes it more likely that the interaction will be based on realistic expectations. This improves the likelihood that the interaction with the business world will be successful, and that sound knowledge relevant to the business community will be produced.

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