PREPARATORY AND FIELD WORK PHASES IN THE QUALITATIVE EMPIRICAL RESEARCH PROCESS IN MANAGEMENT: THE CASE STUDIES APPROACH

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Structured Abstract:

Purpose: The aim of this paper is to promote qualitative methodology within the scientific community of management. The specific objective is oriented to propose an empirical research process based on case study method. This is to ensure rigor in the empirical research process, that future research may follow a similar procedure to that is proposed.

Design/methodology/approach: Following a qualitative methodological approach, we propose a research process that develops according to four phases, each with several stages. This study analyses the preparatory and field work phases and their stages.

Findings: The paper shows the influence that case studies have on qualitative empirical research process in management.

Originality/value: Case study method assumes an important role within qualitative research by allowing for the study and analysis of certain types of phenomena that occur inside organisations, and in respect of which quantitative studies cannot provide an answer.

Keywords:
Qualitative research method; management; case studies.

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ABSTRACT
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1. INTRODUCTION
To research means to conduct activity so that we might better know the reality around us. To research scientifically implies following logical and systematic steps to prove the truthfulness of a series of statements that refer to the reality one is interested in (Coller, 2005).
In this sense, one must highlight the increasing contribution of qualitative methodology within the scope of scientific research. Notwithstanding its wide use, one can gauge from scarce existing literature from Portuguese authors that there is a very small tendency to adopt a qualitative methodology in management studies, unlike the abundant existing literature concerning quantitative methodology.

Case study is the qualitative research method most commonly applied in the scientific community, and the main motivation for writing his article is to provide a detailed description of the empirical qualitative research process. Yin (1994, 1998, 2005) provides a valuable contribution on the use of case studies as a scientific research instrument by identifying the distinct phases that exist in case study design and conduct.

2. RESEARCH PROCESS
According to Rodríguez et al. (1996) there are four fundamental phases in any research of a qualitative nature: preparatory, field work, analytic and informative. Each one of these phases unfolds in stages. The preparatory phase is a stage of reflexion. Another stage is where the research design is carried out. In the field work phase, there are also stages: one for access to the field and one for information data gathering. In the analytical phase, there are three distinguishable stages: data reduction, data display and transformation; results gathering; and conclusions. The informative phase is limited to the elaboration of the research report. Each one of the phases generates a distinct product: the preparatory phase generates the research project; field work generates accumulated data; the analytical phase generates research results. Lastly, the informative phase generates the research report. Rodríguez et al. (1996) draw on Yin’s model, building a more detailed and precise model (Figure 1).
In figure 1 we can observe how the different phases and stages that constitute the case study research process relate. In this study we analyse the different subjects concerning to the preparatory and field work phases of qualitative research.

We conduct this analysis with in order to achieve a rigorous research process that can be used in future investigations.

2.1. Preparatory phase

This is the initial phase of qualitative research. Here, one can make a distinction between two major stages: the reflective stage and the design stage. In this phase, based on his/her own training, knowledge, experience of the studied phenomenon and on his/her own ideology, the researcher will establish the theoretical and conceptual threshold in order to begin investigation. During the design stage, s/he will concentrate on to planning activities to be carried out in the following stages.

**Reflective stage**

This stage assesses previous work that has analyzed the object of the research study. Included in this stage is a literature review and other activities including conversations between researchers from the same knowledge area, having in mind the pursuit of an original and innovative research theme (Caro, 2001).

The conceptual threshold assumes a high degree of importance in explaining the formulated questions that the researcher proposes to study; and in the possible relations between them (Miles and Huberman, 1994: 18). This will allow the researcher to decide what is relevant, which relations might make more sense (Eisenhardt, 1989: 536). It also guides the data gathering and analysis process (Rodriguez et al., 1996: 66).

**Design stage**

This is the research plan to be followed from beginning to end. As a work tool it must be flexible given that plans might change when confronted with reality.

This stage must contain a few ideas on what to expect to find during the field work. These ideas are related to the theories for which the case is relevant. Research design must contemplate the most appropriate techniques to be used to obtain the necessary information with which to build the case.

Written elaboration of research design has many merits. First, it helps to clarify the scope of the research from the very beginning. Second, by settling on a design that the researcher commits to follow, it becomes a reference point to confirm if the
research is going in the foreseen direction. Third, given that this is a reflection document, not all steps during the research are spontaneous in the sense that they have a purpose for happening. In this way, design contributes towards increasing research rigour. Fourth, and lastly, this is a document that might serve as ground for other scientific activities.

Soon after determining the theoretical threshold and the research questions, one must select the research method and perform the triangulation, develop data gathering techniques and instruments, engage in the data analysis process and consent and approval procedures (Calvo, 2001).

Only by using several methods may one obtain methodological triangulation. Nevertheless, during qualitative research using the case study method, one must contemplate the following triangulation modalities (Denzin, 1978; Janesick, 1994):

- Data triangulation: by using a wide variety of data sources in a study, evidence might be qualitative (e.g., words), quantitative (e.g., numbers), or both (Eisenhardt, 1989).
- Researcher triangulation: by having different researchers or assessors.
- Theoretical triangulation: by using different perspectives to interpret one single set of data.
- Methodological triangulation: by using multiple methods to study a simple problem.
- Disciplinary triangulation: by using different disciplines to inform the research.

In data triangulation, it is advisable to have several sources of evidence. According to Yin (1994: 80), case study research may obtain evidence from six main sources: documentation, archives, interviews, direct observations, participant observations and physical artefacts. These sources enable the acquisition of a more balanced vision before drawing any conclusions (Salancik, 1979: 640). Combining all these types of data provides strong synergies in research (Eisenhardt, 1989: 538).

Doubts that arise throughout a research process must be shared with other researchers to eliminate some underlying subjectivity from works that use a qualitative methodology. Such strategy allows focusing the pursuit of the research object in a more incisive way so that certain errors might be eliminated. Sutton and Callahan (1987: 411) used this strategy to increase the reliability of the analysis.

As mentioned, one must not overlook conversations with other researchers about methodology, in general, and data gathering methods, specifically. This will allow for the detection of errors that will be purged by readjusting the research parameters. For example, while the researcher leads the interviews, it is advisable that a co-worker takes notes so that in the end they can exchange opinions about the interviewee and his/her answers.

Regarding theoretical triangulation, the contrast of theoretical relations found in the theoretical threshold will allow for a perspective incorporating the different literature views.

As far as disciplinary triangulation is concerned, works from other scientific areas are used, such as from economics, marketing, accounting, psychology, sociology and philosophy, among others. The different organisational phenomena that occur in the research object areas affect results. This is why one must highlight the relevant contributions that such subject matters provide.

Methodological triangulation derives directly from the triangulation of all the previously mentioned evidence sources. To analyse each source, one resorts to different, yet complementary methods that, together, integrate in the research strategy called “case studies”.

In a qualitative study, it is hard to predict with great accuracy due to uncertainties that arise in the research process. Qualitative design must have flexibility as its main characteristic and have a high ability to adapt to changes that may occur in the researched reality. It is necessary to “plan while being flexible” (Erfandson et al., 1993: 79).

**Criteria for case selection**

Eisenhardt (1989: 537) argues that case selection is a fundamental stage for the validity of this research strategy. The only demand is that it has a physical or social boundary that confers it entity status (Rodriguez et al., 1996: 92).

To determine the number of cases to study, and therefore to define a sample, researchers should not think of certain types of conceptualisations and parameters used in quantitative methodology. Eisenhardt (1989: 545) suggests a number of cases mainly among 4 and 10. The detailed analysis and the extensive data gathering required for each case implies that the number of subjects that might be a study object must be restricted (Yin, 1993: 11).

In qualitative methodology case selection cannot be random and neutral. It should be performed from the theoretical threshold knowledge, which leads to an essential guide and in a reasonable way (Eisenhardt, 1989; Glaser and Strauss, 1967; Yin, 1993). Even with each case, the selection of responders must be reasonable, deliberate and intentional. People or groups are not selected by chance to complete a n-size sample, but are chosen one by one according to the degree to which they adjust to the criteria or attributes established by the researcher (Rodriguez et al., 1996: 135).

At the time of selecting cases, it is necessary to contemplate the following criteria: how critical are the selected cases for the theory to be approved; the topic relevance; and the feasibility and accessibility (Yin, 1993: 34). Yin (1993) also recommends the selection of a wide number of cases and the gathering of previous information.

Case selection seeks to elicit a deeper understanding of the phenomena to be analysed, in such a way that situations encountered in the empirical context answer research questions posed. A wide set of data for analysis will help substantiate generalisations (Yin, 1994).

Typically, the focus of qualitative research is on the study of intentionally selected and fairly small samples, although it may be restricted to a single case. In contrast, quantitative methods typically depend on a large randomly selected sample (Patton, 1990: 169).

The logic and power of the intentional sample-based enquiry arises from the selection of cases rich in information for an in depth study of a particular phenomenon (Patton, 1990). Such cases facilitate deep learning about questions of core relevance for the purpose of the intended research. Hence the designation “intentional sample-based enquiry”.

For Glaser and Strauss (1967), built theories and models should be based on observation of the real world instead of established theory. One significant question prompted by the research methodology literature consists of knowing if theories and models that have a general application might be based on a limited amount of cases. The authors’ answer is clearly an affirmative one: “since precise evidence is not that crucial to formulate a theory, the type of evidence and number of cases is not that crucial as well. One single case may indicate a general conceptual category or a property; a few cases more may confirm that indication” (Glaser and Strauss, 1967: 95).
Research tools design

This stage is dedicated to the design of the tools that are necessary for data gathering. Yin (1993: 7) recommends the elaboration of a pilot research protocol for testing on the first case, in order to assure they are adequate for the intended research and to confirm that the right path is being followed in this exploratory phase.

The prevailing medium for information gathering in this type of research is the interview. In this sense, the ‘script of the interview’ is the instrument that will provide most of the data, and its elaboration must therefore be careful as far as the treatment and compilation of information are concerned.

The information resulting from there will be richer and allow for a more complete approximation of the phenomenon studied. The interview facilitates description and interpretation of aspects of reality that are not directly observable: feelings, impressions, intentions or thoughts, as well as events from the past that remain in the subjects’ mind (Patton, 1990).

2.2. Field work

This is considered to be the body of the work. The term is adopted from anthropological practice it indicates that the researcher went to the place where he wishes to conduct the research. A series of tasks is therefore developed to allow for the gathering of necessary information to successfully complete their work. Field work is divided into four stages:

- Selection: Representativeness of the studied object is sought. In research of a qualitative nature involving case studies, it is difficult to talk about representativeness. So selection of the case one intends to study must take account of other criteria that do not diminish the validity or reliability of the research, and that allow for generalisation. Considerable intellectual effort must be expended to establish an adequate relation between what is being studied and the universe that the study is meant for, and, afterwards, to extrapolate. So, it is advisable that one proceeds to the analytical or inductive generalisation. This requires the existence of a previous theoretical problem, of a controversy or debate on the explanation of reality for which the research contributes with its elaborate conclusions from case studying. Analytical induction is appropriate for the theoretical explanation and generalisation. It consists of arguments that are build-up from observation of single cases, starting with “a theoretical concern and tries to move from one or several cases to theoretical generalisations able to explain the problematic characteristics of each case. These theoretical generalisations are proved once and again in case studying (…)” (Rueschemeyer, 1991: 32). For the analytical generalisation to be valid, one must make clear what the inherent conditions are concerning the observation of the phenomenon as the object of generalisation, and the characteristics of the case which lead to its selection. It is always advisable to explain the logic of the selection so that it doesn’t seem to have been arbitrarily chosen. This logic tends to take account of several criteria. According to Yin (1994: 53 ff.) one must follow the logic of experimentation. A case is chosen to verify or refute what was found in another case. The object is contrasted to improve knowledge of reality.

- Access to information: This is a delicate process in the sense that the absence or a certain type of information might compromise the success of the research, and therefore some additional care, especially regarding, for example, is essential to have the institutional support from the organisation that under study.

- Gathering of materials: Once access to the wanted information is achieved, it is necessary to approach the case with preparatory visits to the organisation and informal conversations with the contacted people. The object of this initial phase becomes firm in order to assure that the case fulfils the established requisites upon the design of the research. After this stage, one moves on to field work, in a strict sense, and to the corresponding gathering of materials. This is guided by the previous steps (research design and theory) and settles on the relevant aspects of the case that will help to validate or refute its questions, and which will be followed by the conduct of the in-depth interviews.

During the information gathering stage, one resorts, essentially, to three sources: documents; interviews; and observation.

- Analysis: It is advisable to analyse material as it becomes available. This substantiates an advantage, in the sense that when one goes back to the field, after conducting the previous analysis, one has ideas and the chance to make more focused and guided observations in respect of a certain goal. Usually, people who conduct research spend their time gathering information, analysing it, reviewing their interviews, resorting to theory to obtain answers, and making observations as results of their previous analysis.

Access

The access criterion takes into consideration two characteristics of qualitative research: 1) focused and natural empirical scenario for the sources of information; and 2) the researcher as the main instrument for the gathering of information.

The necessity of a ‘natural scenario’ to gather information during research implies visits to the organisation which is the object being studied.

For a qualitative researcher, the benefit of being the research’s ‘main instrument’ is that e/he may provide a theoretical sensitivity for the gathering and interpretation of information by having the attribute of discovery, or “(...) the ability to give meaning to data, the ability of understanding and the competence to separate what is pertinent from what is not” (Straus and Corbin, 1997: 205).

Access to the field is facilitated via close proximity to the researched organisation. Thereafter, the selection of interviewees is programmed and the conduct of interviews is scheduled. Confidentiality regarding the research must be assured to every interviewee, especially regarding his/her anonymity.

The importance of theory-building research from case studying is frequently a result of the overlap of data analysis and data gathering. Glaser and Strauss (1967) refer to the fact that they gather, code and analyse data, while other researchers have not reached this level of overlap. Field notes, comments from the researcher or other colleagues are an important means to reach such overlap. Van Maanen (1983) mentions that notes are a progressive stream of conscious comments about what is happening in research, either involving observation or analysis – preferably separated.

To write down all impressions that may occur will provide useful field notes. That is, not to eliminate what might seem important, since it is usually difficult to tell what will or will not be useful in the future. One other thing that should be done is to ask some questions, such as “What am I learning?” and “How different is this case from other cases?”. These ideas might work when
crossing cases, assumptions about relations, or during peculiar phenomena and informal observations. Meetings where researchers share their emergent thoughts and ideas are also useful advice to overlap data gathering and analysis. Such overlap provides the researcher with a starting point to begin the analysis, allows him/her to take some advantage of the flexibility of data gathering. The key to generating theory from case studying is the freedom to make adjustments during the data gathering process. Such adjustments may consist of the use of new cases to prove emerging themes, and/or can be done in data gathering instruments, like adding questions to the interview protocol or to a questionnaire (Harris and Sutton, 1986). These adjustments allow the researcher to prove emergent themes or to take advantage of special opportunities that might occur during specific situations. On other occasions, adjustments may include the addition of data sources in selected cases.

Given these alterations, Eisenhardt (1989: 539) raises an important question: Is it legitimate to change or even add data gathering methods during a study? For theory-building researchers the answer is “yes”. This is because they are trying to understand each case individually in a deep and feasible way. The purpose is not to produce statistical abstracts about a series of observations. So, if an opportunity comes along for new data gathering or for a new line of emergent thoughts during the research, it makes perfect sense to take advantage of it through the alteration of data gathering if such alteration better supports a certain theory or if it provides new theoretical contributions. This flexibility is not a justification for failing to be systematic, it is rather a controlled opportunism from which researchers take advantage of access to data from specific cases and the emergence of new themes to improve the resulting theory.

This is one an exciting and enriching stage of research. The relationship that is established with organisations and human resources allows us to get to know and have contact with the reality under study in a direct way, such as it is presented to us. Contextual limitations play a basic role in organisational management and the casuistics they generate cannot be contemplated from a general and globalising focuses (Caro, 2001: 44).

Access to the field implies entering the area of the unknown where predictions previously foreseen by the researcher are not always confirmed and where unforeseen and uncontrollable phenomena may occur. The field, physical and social context where phenomena under research take place, is upstream, without definition and overflows the limits of what was foreseen by the researcher (Rodríguez et al., 1996: 103).

It is not easy to get the human resources that we intend to interview to allow a stranger (the researcher) to ask questions related to their organizations. Human resources fear any external interference and thus, obtaining their cooperation for research is sometimes an arduous task.

**Interviews**

Deep understanding a phenomenon requires the conduct of in-depth interviews and the analysis of a limited number of sources that allow obtaining an appropriate quantity of data (Patton, 1990). Regarding the role and importance of interviews, Stokes (2000: 53) noticed that “in-depth interviews have already proved their worth in research”.

In practical terms, research interviews may adopt several shapes, depending on the number of people involved (individual or group interviews), communication methods (e.g. by telephone or face-to-face) and format of questions (structured or non-structured).

Theme interviews are based on the use of a ‘script’ containing themes to be approached, even if they are intended to be used in a wider sense to introduce and treat themes related to each defined analytical category. As far as in-depth interviews are concerned, this means that interviewees have been actively encouraged to reveal their deep motivations and to express their opinion in a sincere way, in a completely free environment.

According to Pellemans (1999), the researcher directs theme interviews in a casual way, encouraging interviewees to speak freely about the themes in question so that they can be clear and feel comfortable. People are invited to use their expressions, and to make the approaches occur spontaneously. The interviewer does not settle for evident answers and encourages interviewees to particularise their thought and justify their motivations. S/he begins by approaching a problem openly and, afterwards, narrows it down in a precise way. In these circumstances, the interviewer adopts a non-directive attitude and, then, a more interventionist one.

Designed tools and protocols must adjust to the research’s needs. This adjustment allows the researchers to prove emergent concepts or to seize opportunities that occur during a specific situation in a given research (Eisenhardt, 1989; Harris and Sutton, 1986).

**Data gathering**

Data gathering is based on the use of multiple techniques to capture the complexity of the phenomenon and corresponding inter-relations so that it is possible to contrast formulated questions during the research in a more substantial way, enabling conceptual strengthening of the analysis of the studied phenomenon.

It is advisable to use multiple sources of data that are appropriate to the case study method. Direct observation and open interviews are usually primary sources, and the consultation of documentation as a secondary source.

Choosing open interviews as the main source of data best accommodates the gathering of data and its subsequent analysis. Those techniques deepen understanding of context situations, aiding understanding of the phenomenon. In this sense, data gathering is developed analytically, through an initial work with categories and concepts that arose in the course of the case, suggesting the use of the open coding technique1.

Undoubtedly data gathering is one of the most laborious tasks in any research. It is particularly slow in qualitative research when one intends to assure the quality of conclusions. Data gathering begins in the first phase of access to the field. We prepare a field journal where we record information and make notes regarding our research’s more relevant occurrences.

The important thing is to have a significant and appropriate sample for the research. It is decisive that the level of “theoretical saturation” is reached (Sutton and Callahan; 1987: 408) in the sense that from a certain interviewee on one would start listening to (almost) the same answers.

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1 Strauss and Corbin (1990: 61) explain this technique in a detailed manner that can be briefly described as a “data break, examination, comparison, conceptualisation and categorisation process” via an opening of the data where conceptualisation is a first step.
Field journal

This journal is a document whose information strengthens the argument intended to be built (Coller, 2005: 80). It plays an important role in observation.

As with Calvo (2001), we understand observation to be a systematic process by which the specialist gathers information regarding a certain problem. This problem gives sense to the observation itself and is what determines aspects such as the one being observed, when observations are recorded, how they are recorded, how data proceeding from observation are analysed or what purpose is given to data (Rodríguez et al., 1996: 150).

As soon as one contacts the organisation(s) under study starting from data gathering, their characteristics must be recorded: environment, welcoming, employees and co-workers' behaviour, etc. By the end of each research day, notes referring to the most important aspects should be recorded, comparing them with those prepared in previous days. Eisenhardt (1989: 547) recommends that all notes should be done in that timeframe.

According to Eisenhardt (1989: 539), the key to note taking in a field journal is to note down all the observed impressions and facts (even if they seem of little importance). We do not know how useful they might be in the future and ask questions that contribute to refining the research (e.g. What have I learned?; What differences does this case present regarding others?).

Reports and documentation

In case study based qualitative research, interview corroboration by using archived records is important to validate information. Yin (1994: 81) argues that “documental information is probably relevant for all case studying themes”. Bonoma (1985) on the other hand, suggested that in marketing cases studies, for example, specific sources should be used as financial information, as well as information on market performance and competition.

Each research’s report becomes its own final document, be it a scientific article, a working paper or even a doctoral thesis.

Observation

Observation occurs when researchers actively witness the phenomenon they are studying in action and in a natural scenario. There is a distinction between a ‘non-participant observation’, in which the researcher is apart from the activities that occur, and a ‘participant observation’, in which the researcher is completely involved with the participants and phenomena observed, and between dissimulated and manifested observations (Hussey and Hussey, 1998). Direct observation has been highly recommended for the research of organisational phenomena (Yin, 1994).

Sufficiency and adequacy

Sufficiency is achieved when an “informative saturation” status is reached and new information does not contribute anything new. Adequacy concerns information selection according to theoretical needs of the emerging study and model. Both serve the purpose of assuring research rigour, and should, at this point, have data sufficiency and adequacy criteria in mind.

CONCLUSION

A clear and consistent empirical qualitative research process allows us to eliminate some problems that the case study method constantly faces, such as representativeness of the cases, the validity of a qualitative study, as well as the generalisation of the research’s conclusions, its reliability and the selection of the case to be studied.

Regarding their disadvantageous position when compared to quantitative studies, it is important that qualitative studies present high quality and reliability levels and that they are able to adequately and satisfactorily answer the above mentioned problems, hence avoiding the risk that the research lacks the rigour and is not considered or taken into account by business management researchers.

The research process will thus help us suppress some of the weaknesses in case study, strengthening the authenticity of this type of methodology, promoting its use. This study has sought to make an important contribution for this propose through the analysis of the preparatory and field work phases and its stages – the start up of the qualitative research process.

However, it is necessary to apply the case study method with rigor, which is possible if you use the proper empirical qualitative research process that demonstrate the validity and reliability of the results, thus ensuring the quality of the investigation, as proposed in this article.

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