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Research Note

The Research Design Maze: Understanding Paradigms, Cases, Methods and Methodologies

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Abstract

The present paper introduces the logical choices available in research methodologies; which enable the drawing of correct inferences to answer the various research questions that are asked by accounting researchers.

It starts with an overview of research paradigms as fundamental beliefs that affect the ways to conduct social research, including the choice of a particular research methodology. The paper then details the elements of case study design, including the justification to choose case organisations. The sections that follow present an overview of the required data and collection methods and discuss the methods used to analyse the collected data. Considerations regarding research quality are also presented.

This paper is a useful reference or a starting point for researchers considering qualitative multi-method case study research designs.

Keywords

Research Paradigms
Interpretive Accounting Research (IAR)
Case Study Research
Interview Techniques
Constant Comparative Method

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Introduction

Research paradigms address the philosophical dimensions of social sciences. A research paradigm is a set of fundamental assumptions and beliefs as to how the world is perceived which then serves as a thinking framework that guides the behaviour of the researcher (Jonker and Pennink 2010).

Although the philosophical backgrounds usually remain implicit in most research, they affect the practice of research. Some writers (e.g. Berry and Otley 2004; Creswell 2009; Saunders, Lewis and Thornhill 2009; Neuman 2011) emphasise that it is important to initially question the research paradigm to be applied in conducting research because it substantially influences how one undertake a social study from the way of framing and understanding social phenomena. Following this suggestion, various research paradigms are discussed below to enable a justification of the theoretical assumptions and fundamental beliefs underpinning a social research.

Philosophical Dimensions

The two main philosophical dimensions to distinguish existing research paradigms are *ontology* and *epistemology* (Laughlin 1995; Kalof, Dan and Dietz 2008; Saunders, Lewis and Thornhill 2009). They relate to the nature of knowledge and the development of that knowledge, respectively. Ontology is the view of how one perceives a reality.

In terms of social research, ontologically one can perceive that the existence of reality is external and independent of social actors and their interpretations of it, termed objectivist (Saunders, Lewis and Thornhill 2009) or realist (Neuman 2011). On the other hand, subjectivist or nominalist adopter theory believes that reality is dependent on social actors and assumes that individuals contribute to social phenomena.

The second paradigm, epistemology, is the beliefs on the way to generate, understand and use the knowledge that are deemed to be acceptable and valid. In addition to these two fundamental philosophies, two basic beliefs that affect the way to investigate reality are *axiology* and *methodology*. The former is concerned with ethics, encompassing the roles

of values in the research and the researcher's stance in relation to the subject studied. The latter refers to a model for undertaking a research process in the context of particular paradigm. These basic beliefs as they relate to research paradigms are outlined in Table 1.

Table 1: Fundamental Beliefs of Research Paradigms in Social Sciences

Fundamental Beliefs	**Research Paradigms**			
	Positivism (Naïve realism)	*Postpositivism (Critical Realism)*	*Interpretivism (Constructivism)*	*Pragmatism*
Ontology: the position on the nature of reality	External, objective and independent of social actors	Objective. Exist independently of human thoughts and beliefs or knowledge of their existence, but is interpreted through social conditioning (critical realist)	Socially constructed, subjective, may change, multiple	External, multiple, view chosen to best achieve an answer to the research question
Epistemology: the view on what constitutes acceptable knowledge	Only observable phenomena can provide credible data, facts. Focus on causality and law-like generalisations, reducing phenomena to simplest elements	Only observable phenomena can provide credible data, facts. Focus on explaining within a context or contexts	Subjective meanings and social phenomena. Focus upon the details of situation, the reality behind these details, subjective meanings and motivating actions	Either or both observable phenomena and subjective meanings can provide acceptable knowledge dependent upon the research question. Focus on practical applied research, integrating different perspectives to help interpret the data
Axiology: the role of values in research and the researcher's stance	Value-free and etic Research is undertaken in a value-free way, the researcher is independent of the data and maintains an objective stance	Value-laden and etic Research is value laden; the researcher is biased by world views, cultural experiences and upbringing	Value-bond and emic Research is value bond, the researcher is part of what is being researched, cannot be separated and so will be subjective	Value-bond and etic-emic Values play a large role in interpreting the results, the researcher adopting both objective and subjective points of view
Research Methodology: the model behind the research process	Quantitative	Quantitative or qualitative	Qualitative	Quantitative and qualitative (mixed or multi-method design)
Based on Saunders et al.(2009, p.119),Guba and Lincoln (2005), and Hallebone and Priest (2009)				

Research Paradigms

The first two paradigms, both *positivism* and *postpositivism*, apply the *lens* of natural science to social science. Ontologically, they share a common view that social reality is external and objective. Therefore, axiologically they maintain the separation of the researcher from the researched by taking the stance of the etic approach or the outsider perspective. Epistemologically, they advocate the use of a scientific approach by developing numeric measures to generate acceptable knowledge. They commence with the test of theory in the form of hypotheses and involve statistical tests in their research process. However, they use different philosophical assumptions.

Positivist researchers seek to obtain law-like generalisations, termed nomothetic (Neuman 2011), by conducting value-free research to measure social phenomena. Positivists believe that different researchers observing the same factual problem will generate a similar result by carefully using statistical tests and applying a similar research process in investigating a large sample (Creswell 2009). Their common belief is the existence of a universal generalisation that can be applied across contexts, which is now called naïve realism.

Postpositivists challenge the belief of this absolute truth, especially in relation to studying human behaviour in social science. The postpositivist approach also believes in generalisation, but admits that knowledge is a result of social conditioning. This is called the critical realist stance, which means that understanding social reality needs to be framed in a certain context of relevant law or dynamic social structures which have created the observable phenomena within social world.

Interpretivism, at the far extreme of postpositivism, subscribes to what is called constructivism. Interpretivists believe that reality is constructed by social actors and people's perceptions of it. They recognise that individuals with their own varied backgrounds, assumptions and experiences contribute to the on-going construction of reality existing in their broader social context through social interaction. Because these human perspectives and experiences are subjective, social reality may change and can have multiple perspectives (Hennink, Hutter and Bailey

2011). Therefore, interpretivists reject objectivism and a single truth as proposed in postpositivsm. To understand the social world from the experiences and subjective meanings that people attach to it, interpetivist researchers favour to interact and to have a dialogue with the studied participants. They also prefer to work with qualitative data which provides rich descriptions of social constructs. As opposed to generalisation or the nomonethic approach adopted by postpositivist researchers, interpretivists use a narrative form of analysis to describe specifics and highly detailed accounts of a particular social reality being studied, which is termed the idiographic approach (Neuman 2011). Consequently, the parameter to test knowledge in the positivist and interpretivist paradigm-camp is distinct. Positivist scholars believe in the power of replication research. Interpretivist researchers vote a study that uncovers inside perspectives or real meanings of social phenomena from its study participants as a good social knowledge. In terms of axiology, intrepretivist researchers take the stance of the emic or insider perspective, which means to study the social reality from the perspective of the people themselves. Here, the experiences and values of both research participants and researchers substantially influence the collection of data and its analysis.

Pragmatism is another branch of research paradigm that refuses to join the 'paradigm war' between the positivist and interpretivist research philosophies (Tashakkori and Teddlie 1998). Instead of questioning ontology and epistemology as the first step, pragmatist supporters start off with the research question to determine their research framework. They emphasise that one should view research philosophy as a continuum, rather than an option that stands in opposite positions. Pragmatism believes that objectivist and subjectivist perspectives are not mutually exclusive. Hence, a mixture of ontology, epistemology and axiology is acceptable to approach and understand social phenomena. Here, the emphasis is on what works best to address the research problem at hand. Pragmatist researchers favour working with both quantitative and qualitative data because it enables them to better understand social reality.

The importance of and the debate over research paradigms has been recorded in the accounting literature (see, for instance, Laughlin 1995; Ahrens 2008; Kakkuri-Knuuttila, Lukka and Kuorikoski 2008; Kaidonis, Moerman and Rudkin 2009; Lukka 2010). Accounting issues, which typically deal with number crunching, are predominantly studied within the positivist paradigm. This strand of strongly numerical studies forms the basis of the so-called mainstream research in accounting. Using an objective viewpoint and the hypothetico-deductive method, such research analyses large archival data sets in order to provide explanations for social phenomena.

The shift from positivist to subjective thinking in accounting research (Laughlin 1995), including from quantitative to qualitative research (Parker 2012), became apparent in 1970s. In particular, the application of qualitative research has gained popularity in the management accounting arena (Parker 2012). By investigating the subjective meanings of social phenomena and the resultant behaviour, interpretive accounting researchers have sought to provide a better understanding of functioning accounting practices. This category is called non-mainstream or alternative research.

Research Methodologies and Methods

At this point it should be noted that *research methodology* and *research method* are distinctive concepts. Analogically, a methodology is a domain or a map, while a method refers to a set of steps to travel between two places on the map (Jonker and Pennink 2010). A methodology refers to a model to conduct a research within the context of a particular paradigm. It comprises the underlying sets of beliefs that guide a researcher to choose one set of research methods over another. Because methodologies are closer to research practice than the philosophical concepts found in paradigms, many researchers commonly state that they are conducting 'qualitative' instead of 'interpretivist' research (Sarantakos 2005).

A research method consists of a set of specific procedures, tools and techniques to gather and analyse data. However, a research method is a-theoretical (Sarantakos 2005), that is, it is independent from methodologies and paradigms. Therefore, a research method, e.g. an interview, can be used in different research methodologies. In other words, a method is a practical application of doing research whereas a methodology is the theoretical and ideological foundation of a method. A research design then becomes important to connect a methodology and an appropriate set of research methods in order to address research questions and or hypotheses that are established to examine social phenomena.

Research Designs

Research purpose and research questions are the suggested starting points to develop a research design because they provide important clues about the substance that a researcher is aiming to assess (Berry and Otley 2004; Saunders, Lewis and Thornhill 2009; Yin 2012).

A research method that facilitates a deep investigation of a real-life contemporary phenomenon in its natural context is a case study (Woodside 2010; Yin 2012). There are three ideal conditions for conducting a case study advocated by Yin (2009) in comparison to the other research methods in social sciences: experiment, survey, archival analysis and history. First, the form of asking a research question is in the form of *why* or *how*. The remaining two conditions are that no control is required over behavioural events being studied and the study focus on contemporary events. Thus, a case study should be of a contemporary event as opposed to a historical one.

Ideally case study research should use a multiple case study design involving multi-sites to be studied and using multiple methods to analyse the collected data. The rationale behind the choice of a multiple case study over a single case study is to enable comparisons between the observed practices by subjects studied in order to obtain a more comprehensive understanding of these practices.

Multi-method[1] qualitative research refers to using more than one data collection techniques and applying multiple methods to analyse these data using non-numerical (qualitative) procedures to answer the research question. Here, the investigation should result in both a *descriptive* model as to how the world is, and *prescriptive* suggestions as to how the world should be. Thus, *case study research* should ideally be performed through a two-stage case study with the use of both qualitative and quantitative data collected from multiple sources, and predominantly qualitative analysis procedures applied in a sequential design.

Selection of Case Organisations

It is very important to be mindful about the trap of selecting a representative case solely to provide a basis for generalisation (Scapens 2004). Unlike positivist research that uses frequencies and statistical generalisation to relate its findings to a larger population, an interpretive case study focuses on analytical generalisation to develop and extend theory. Therefore, the selection process should be driven by the research question as it provides the characteristics of the cases to be studied.

Following the suggestion by Scapens (2004), a critical case or an extreme case should be sought for a representative case. The former is a case in which the social phenomena being observed are some critical events that cause the research questions asked to become important in the organisation. The latter is mainly chosen to test a theory or to broaden the application into a wider range of circumstances. For instance, a case study that tests if a theory works on a very small sized firm is an example of an extreme case. This method of choosing a case according to pre-determined reasons is known as non-probability sampling. Here, a purposive sampling is exercised to specifically pick information-rich cases on the basis of their matched criteria to the ones required to answer the research questions being asked (Bloor and Wood 2006).

Gaining approval from the targeted firms to join as participants in a case study research appeared to be one of the most challenging tasks in this research. Often, an email containing an official letter from the supervisor requesting access turns out to be unsuccessful. Sensitivity of the information to be studied seemed to be the factor that makes these firms hesitant to talk to the researcher. Informal links should instead be chosen. Often such links are more favourable and may in fact yield referrals to more firms to be studied.

This practice of obtaining a studied subject via a referral system is known as *snowball* or networking method. As noted by Bryman (2012), qualitative research has practically applied more than one method of sampling, for instance by selecting a sample purposively which is followed by using the snowball technique to obtain studied subjects.

Data Collection

Data is collected in form of primary and secondary data. The primary data is usually collected using semi-structured interviews with the experts in the observed topic from the case organisations. As suggested by Parker (2003), qualitative researchers should get involved in a communication with the practitioners in the organisational coal-face in order to better understand the current state of real-world practices. The secondary data constitute internal publications provided by participants to the researchers and publicly available data which are relevant to the topic being observed. This method of collecting data from multiple sources, termed data triangulation (Patton 2002), assists the researcher not only to collect more comprehensive relevant information but also to cross-check their consistency in order to enhance the robustness of findings.

Semi-Structured Interviews
The main feature of an interview is to facilitate the interviewees to share their perspectives, stories and experience regarding a particular social phenomena being observed by the interviewer. The participants, who are the practitioners in their field, will pass on their knowledge to the researcher through the conversations held during the interview process (Boeije 2010). The interview method is most often selected as the main method for

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[1] Multi-method approach is different from mixed-method research, which uses both quantitative and qualitative data collection and analysis procedures that are applied either in a concurrent or in a sequential design (Saunders, Lewis & Thornhill 2009).

collecting empirical data of the relevant practices. The interview procedures, encompassing all procedures from 1) designing the interview questions and developing the interview guides, to 2) the process of interviewing itself, are discussed below.

Design and development of interview questions: A semi-structured interview, also known as the non-standardised or qualitative interview (Saunders, Lewis and Thornhill 2009), is a hybrid type of interview which lies in between a structured interviews and an in-depth interviews. Therefore, it offers the merit of using a list of predetermined themes and questions as in a structured interview, while keeping enough flexibility to enable the interviewee to talk freely about any topic raised during the interview. The use of an in-depth qualitative interview is considered as the appropriate format for case study research because in-depth questions cannot be answered briefly. It is anticipated that the researcher would need to ask for examples or more explanation on the answer given in order to gain a deep understanding of the issues.

Rubin and Rubin (2005) provide a guidance to develop the interview questions and procedures. They have created a model of an in-depth qualitative interviewing, termed 'responsive interviewing' (Rubin and Rubin 2005, p.20), which is heavily underpinned by the interpretive research philosophy. This approach emphasises the importance of keeping the research design and questioning flexible and adaptive in order to facilitate new information to emerge or to adapt to an unexpected direction.

Responsive interviewing concentrates on obtaining a deep understanding, rather than breadth, about the investigated topic (Rubin and Rubin 2005). The interview questions are structured to include open-ended main questions, follow-up questions and probes. The main questions should be carefully developed based on the research problem and the research questions in such a way that there are separate interview questions for each part. Relevant articles, webpage publications, and industrial research should be explored to gather ideas about relevant practices to be included in the interview questions.

Follow-up questions should be developed to explore the particular themes, concepts, ideas and unexpected thoughts provided by the interviewees. The probes should be used (prepared ideally in advance) not only to keep the discussion flowing, but also to clarify some discussion points by asking for more details or examples of what had been said. Once the questions had been determined, a peer who has considerable experience in conducting interviews should be asked to check them to ensure that there are no wording questions that might could lead to predetermined answers.

Prior to conducting the formal interview, the researcher should hold mock interviews with colleagues to fine-tune the research instrument. As a result, some expressions and words could be changed to make the questions clearer. Often the structure of the main questions is reordered to improve the flow of the discussion during the planned interviews. This instrument should now be submitted for ethics clearance from the researcher's organisation.

The Interviews: After obtaining the ethics clearance from the Human Research Ethics Committee at the researcher's organisation, the interviews can be conducted. As suggested by Kvale and Brinkmann (Kvale and Brinkmann 2009), the interview should be framed by a briefing before the interview commenced, and a debriefing afterwards. Ideally, a research information package should be provided in the introductory meeting or sent beforehand in an email. The researcher starts off the interview by briefly explaining the aim of the interview and emphasizing the confidentiality, anonymity and the voluntary nature of the study. The interviewee is then given a consent form which should be signed off by both this person and the researcher. With the participant's permission, each interview should be recorded.

Besides recording the interview, the researcher should also take notes during and soon after each interview to record additional information in the form of research memos. There are three types of memos or notes that can be recorded for an interview: observational, methodological and theoretical (Schatzman and Strauss 1973). Observational memos, also known as field notes, are used to describe the situation during the interview. Methodological memos are the records of any issues and concerns regarding the methods used.

Theoretical memos focus on what themes and findings emerged from the interview process.

Each interview should last no more than one and a half hours. After each interview, a debriefing should be performed during which the practitioners are given the opportunity to ask questions, make comments or add any information that was not discussed during the interview. During this visit, the researcher should ask for relevant documents by the practitioners, such as company magazines and sustainability reports. Such secondary data is obtained to triangulate findings in order to answer the research questions. Relevant data will usually be both qualitative and quantitative in nature that includes a wide range of relevant data for the case organisations.

Data Analysis

Data analysis involves the drawing of inferences from raw data. Data analysis can involve multi-methods that are applied sequentially. Multi-method application in conducting research is called methodological triangulation (Patton 2002). Each of these steps is discussed below.

Data Preparation
Raw data, which is the format as they are generated, need to be managed so that they are ready to be analysed (Boeije 2010). Different from data generated from quantitative research which is mainly numerical; data collected in qualitative research are primarily text-based. Data management in such qualitative research involves three important aspects: data storage, transcribing audio sources, and cleaning the data.

Data Storage: A researcher who uses multiple sources of data essentially requires a neat archive to store these data. A good storage enables easy retrieval for various formats of collected data (Boeije 2010). Considering the ethics requirements for conducting field research, the hard copies of collected data should be stored in a locked filing cabinet and electronically on the researcher's password-protected computer. Here, the collected data are further categorised based on their relevant use in the analysis steps.

Transcribing Recorded Interviews: The transcribing task is often outsourced to a professional transcriber. Once transcribed, each one and a half hour interview is usually transformed into around 35 pages of text. After receiving the transcription output, it should be checked against the voice recording for accuracy. The researcher will be interested in the content of the interview, so checking the accuracy of the transcript's content is considered to be crucial. The parts of transcripts containing linguistic details, such as laughter, should be deleted. This approach which concentrates more on content and less on actual expressions is termed denaturalised transcription (Oliver, Serovich and Mason 2005). Because the researcher needs to decide what is to be included and excluded in transcription and becomes familiar with the content of the interview, transcribing can be seen as the initial step in data analysis (Miles and Huberman 1994; Kvale and Brinkmann 2009).

Cleaning Data: Considering the ethics concerns about anonymity and confidentiality, all information that can identify both the practitioners and the case organisations that they represent should be omitted. The data will be identified by a specific coding, e.g. Firm 1 (F1), to the information provided by Firm 1. This identifiable information is intended to be used for data analysis only, to enable a comparison of the findings between firms using the constant comparative analysis method. In most case research, replacing the identity of case organisations with unique codes is particularly important because the interview texts would be read by a peer in a later stage of data analysis to check the consistency of coding.

Qualitative Data Analysis
Qualitative data analysis is normally used in the first phase of the study as the aim is mainly to record the current state of play in the case organisation. Performing data analysis on qualitative data basically involves dismantling, segmenting and reassembling data to form meaningful findings in order to draw inferences (Boeije 2010). The research questions and research aim should be used to guide the process of cutting the collected texts into pieces and logically recombining them. This translation process from raw data to

findings requires interpretation of empirical data.

A common approach to the interpretation of meanings from textual data is using *content analysis*. This technique has been used by both quantitative and qualitative researchers in the social sciences, including accounting (Milne and Adler 1999; Sarantakos 2005). However, they apply different focuses. Quantitative researchers transform qualitative information into numerical numbers. They establish a set of categories and then count the number of instances that utterances fall into each category. The characteristics of categories need to be defined clearly in order to allow other researcher to draw similar results from the texts, e.g. annual reports (Guthrie and Parker 1990). Conversely, qualitative contents analysis concentrates on portraying reality by discovering meanings from the textual data (Silverman 2011). Consistent with the paradigm used, qualitative content analysis is applied in this study from the perspective of case organisations (Sarantakos 2005), which means using the emic or an insider's approach to view the practices of the case organisation.

Qualitative content analysis which is done through identifying patterns and themes within data is termed *thematic analysis* (Given 2008). The *constant comparative method* follows similar principles to thematic analysis in extracting themes from within texts. However, the constant comparative method focuses more on describing variation in different circumstances of social phenomena (Boeije 2010). It provides a more systematic way to identify any difference that emerges in empirical data (see Boeije 2002). Therefore, the constant comparative method is preferred if the objective is to reveal important concepts, processes, and the overarching professional experiences between the case organisations.

In practice, qualitative content analysis uses a coding method. Coding simply means labelling. It refers to the assignment of a code representing the core topic of each category of data. As applied in the grounded research approach, coding in usually undertaken on three levels: *open coding, axial coding* and *selective coding* (Boeije 2010). Open coding is conducted by dismantling texts and distinguishing different themes and concepts found in the data. These pieces of data are then

regrouped based on their relevant content into categories. This categorising step is termed axial coding. Finally, selective coding was conducted by making logical connections between the core categories to make sense of understanding what has been really happening in the observed practices.

Ideally, coding is also performed iteratively. Coding is initially conducted right after removing case organisations' identity from text. Then, the textual data is re-examined for developing further interview questions for each subsequent meeting with case organisations. All findings from each coding process should be recorded in a codebook as a part of *interim summaries*. As suggested by Saunders et al. (2009), interim summaries are used to record the progress to achieve conclusions, including what had been found so far and what needed to be done to improve the quality of findings or to find alternative explanations. The use of a *draft codebook* is inspired by Boyatzis (1998) and Neuendorf (2002). Here, each code is given a label, a definition or description to guide how to apply the code, and an example of the texts. Hierarchical numbering should be assigned to codes to show the relationships between codes. Applying coding analysis technique more than one times to the similar texts results in the refinement of codes.

In addition, *peer debriefing* (Long and Johnson 2000) could be performed to test code reliability. The researcher should then discuss emerging findings and how the coding assigned in the text with a colleague who has experience in using the constant comparative method. All the concerns and recommendations from peer debriefing are then used as a basis to further refine the codebook. This method of using more than one evaluator in examining one particular topic is termed *investigator triangulation* (Patton 2002). Keeping the progress records of interim summaries and of a codebook is often found very useful in drawing conclusions in case study research.

Research Quality

The rigour of qualitative research has been subject to continuous discussion in the literature (see, for example Denzin and Lincoln 2005; Boeije 2010). Qualitative research has been criticised as lacking generalisibility by its

counterpart, the quantitative mainstream. The quantitative tradition believes that research should rely heavily on reliability and validity to ensure its replicability and generalisability. Reliability refers to the consistency of measures whereas validity concerns with the extent to which it reflects the social phenomena being observed. Measurement consistency facilitates the replication or the repeatability of a study. The degree to which the results can be generalised to a larger population, which is called generalisability (which is the main content of external validity), has been the major point of criticism of qualitative research.

However, these traditional concepts of reliability and validity do not fit perfectly into the qualitative research landscape. Following Parker (2012)'s stance, qualitative research operates in a completely different domain with different missions and agendas. Qualitative research seeks to produce credible knowledge of interpretations on organisation and management accounting processes and understandings, with an emphasise more on uniqueness and contexts.

In a similar vein, some social scientists (Kalof, Dan and Dietz 2008; Bryman 2012) explain that reliability and validity per se cannot be practically used as criteria to assess qualitative research. Some alternative terms have been used to sensitise reliability and validity to the specific nature of qualitative research. There are four criteria of research trustworthiness developed by Lincoln and Guba (1985) and Guba and Lincoln (1989) which have been widely cited in the social science research method literature (e.g. Kalof, Dan and Dietz 2008; Bryman 2012) to evaluate the quality of qualitative research: *credibility* which parallels internal validity, *transferability* which resembles external validity, *dependability* which parallels reliability, and *confirmability* which resembles objectivity.

Credibility deals with the accuracy of data to reflect the observed social phenomena. In simple terms, credibility is concerned with whether the study actually measures or tests what is intended. The carefully selection of a case organisations is considered as the first practical step toward credibility in case study research. In subsequent meetings with the practitioners, the interim results from the

previous interview can be discussed as a method of respondent validation (Bryman 2012). The triangulation approaches discussed above: *data triangulation, method triangulation* and *evaluator triangulation*; enhance the credibility of research findings. Evaluator triangulation, which is also known as peer debriefing, is not only useful at the data analysis stage to check the consistency of data coding but also in identifying other perspectives on projects which may have been overlooked by the researcher.

Transferrability refers to the level of applicability into other settings or situations. As suggested by Lincoln and Guba (1985), a rich and thick explanation of research sites and characteristics of case organisations should be provided to enhance transferrability. While it is certain that the data from a qualitative study is not reproducible, it is not impossible to apply a qualitative study in a different setting. With some careful adjustments in the setting, such research findings that are drawn from rich descriptions on the current state of play of observed practices have the possibility of being transferred into a different study of other industries within or across jurisdictions.

Dependability corresponds to the notion of reliability which promotes replicability or repeatability. Dependability concerns taking into account all the changes that occur in a setting and how these affect the way research is being conducted. Dependability can be achieved by a detailed explanation of the research design and process to enable future researchers to follow a similar research framework. It should be noted that the application of the research model by a future researcher is not necessarily targeted at getting a similar result. Enhancing dependability can be achieved by presenting detailed and step-by-step explanation of the research processes undertaken, as well as providing the main instruments used to gather empirical data, e.g. the list of interview questions.

Confirmability refers to the extent to which others can confirm the findings in order to ensure that the results reflect the understandings and experiences from observed participants, rather than the researcher's own preferences. In addition to triangulation methods, Lincoln and Guba (1985, p.317) suggest using an 'inquiry audit' to enhance

confirmability. Documentation on data and progress of research therefore should be carefully kept in the form of research memos and interim summaries as parts of the research working book. This research record serves to provide an audit trail which enables an examination of both the research process and research outputs by tracing out the step-by-step the course of the research. Peer assistance to cross check the coding development and application can also be aimed at confirmability.

Summary

This paper has entangled the often confusing concepts of research paradigms, research methodologies, and research methods; and is provided as a useful aid for researchers, especially those undertaking case research.

Conducting a research study should be started off by considering how the researcher views the observed social phenomena, which leads to the dominant research paradigm to be applied. The choice of a research paradigm leads to a relevant research methodology. The research design then needs to be developed to link research methodology and a set of research methods in order to enable the drawing of logical and valid inferences. It is worth noting that the research purpose and research questions are the fundamental basis on which to craft a research design.

Interpretivist research, which has been recorded as the more dominant research genre in management accounting rather than financial accounting, facilitates a better understanding of the functioning accounting practices. A case study design is suggested for accounting research which seeks to provide deep understanding of a real life contemporary accounting phenomenon in its natural context. To obtain a more comprehensive understanding of the current state of observed accounting practices and phenomena, it is suggested to involve more than one case as the studied subjects; to collect a wide range of relevant data and to perform multiple methods to analyse them.

This paper has also highlighted the importance of considering the quality of qualitative research in a similar way to assessing quantitative research. Some techniques presented to improve research soundness, for instance iterative analysis and triangulation techniques, play essential part in enhancing the trustworthiness of research findings.

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