MALAYSIAN ACCOUNTING REVIEW

SHARING AN EXPERIENCE: FIELD STUDY METHODS TO UNDERSTAND MANAGEMENT ACCOUNTING PRACTICES IN A CHANGING ENVIRONMENT

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Concerns have been expressed about the small number of publications of field based accounting research in top ranking journals. The limited understanding of how to conduct high quality field based research in accounting has been noted as a contributing factor for both the low publication rate and the reluctance of researchers to undertake field-based research. This paper reports how field study method has been applied to address a research question in management accounting area. The paper describes the procedures that were followed to collect and analyse data, and the measures taken to address threats to validity and reliability of the study. The paper also discusses, in hindsight, the ways in which the quality of the procedures adopted in the study could have been improved. Those researchers who are interested in applying field study method will particularly benefit from this paper as it provides insights into the: (a) strengths, limitations and difficulties associated with field study methods; (b) procedures that may be followed when using field study methods to address a research question similar to the one discussed in the paper; and (c) the pitfalls to be avoided and the factors that need careful consideration when conducting field based research.

Introduction

Field study methods attracted an increased attention from accounting researchers when the importance of examining accounting issues within their organisational context was brought to light, particularly in the 1980s (eg., Hopwood, 1983; Hopwood, 1987; Kaplan, 1983; Flamholtz, 1983). However, the number of publications of field based research in management accounting to date is relatively small (Ferreira & Merchant, 1992). Concerns have been expressed about the small number of publications of field study research in top ranking accounting journals (Shields, 1997; Foster & Young, 1997). The limited

understanding of how to conduct high quality field research in accounting has been noted as a contributing factor for both, the low publication rate of such research in top-ranking journals and for the reluctance of researchers to adopt such methods (Shields, 1997; Foster & Young, 1997; Ferreira & Merchant, 1992). While most text books on research methods provide a general and broad understanding of field study methods, including features, strengths, limitations and difficulties associated with the method (eg., Dane, 1990), not many authors have made any reasonable attempt to go beyond this general format and discuss the use of field study methods within an actual research context.[1] Furthermore, journal articles on field based research often provide only limited details of the research method, mainly due to the pressure to manage journal space. It is also claimed that an excessive focus on the discussion/analysis/conclusions by field researchers leads to a failure to adequately describe the research method used, or the data on which the conclusions were based (Ferreira & Merchant, 1992, p. 21). Lillis (1999), however, has made a significant contribution in this regard by outlining in detail the method used to analyse qualitative data collected in the field and, critically assessing the procedures adopted in that endeavour.

Abernethy *et al.* (1999) noted the importance for novice researchers to recognise the choices and problems in selecting a particular research method and in designing a study. They also recognise the contribution that can be made by providing novice researchers "a 'behind the scenes' expose on the problems, choices and decisions confronted by the researcher during the method phase of the empirical study" (p.1). Following Lillis (1999), this paper aims to describe how field study methods were applied in a management accounting research context. This paper differs from Lillis (1999) as it describes the whole process used to collect data (i.e., through the selection of the organisation to the writing up of the report), rather than focusing on one stage of the research process (i.e., the method used to analyse qualitative data) as was the case in Lillis (1999). Additionally, the research questions addressed in the two studies are different and hence different procedures in data collection and analysis. Apart from describing the procedures that were used to collect and analyse data, this paper also discusses, in hindsight, the ways in which the quality of the procedures adopted in the study could have been improved. Overall, this paper will provide insights into the: (a) strengths and limitations of field study methods; (b) complexities in applying field study methods; (c) procedures that may be followed when applying field study methods to address a research question similar to the one discussed in the paper; and (d) pitfalls to be avoided and the factors that need careful consideration. Hence, this paper will contribute to the literature on research methods, and also benefit those researchers who are contemplating using field study methods.

The remainder of the paper is organized as follows. Section Two briefly discusses field study methods in general and how such methods have been used in management accounting research. Section Three outlines the field study conducted by the researcher, and describes the procedures adopted in the study to collect and analyse data. A retrospective evaluation of the field study methods applied in the study discussed in this paper is provided in the section that follows. The final section provides a summary and some concluding remarks.

Field Research in Accounting

According to Atkison & Shaffir (1998, p. 41), "field research is about studying phenomenon in their natural setting", and Young (1999) notes that such research differs from most other research approaches based on two main features; namely the direct contact of the researcher with the organisational members, and collection of data in real organisational context using multiple sources.[2] Field researchers can apply such methods to serve a number of purposes, including to describe (eg., to describe organisational responses to particular phenomena), to build theory, and to test hypotheses (Ferreira & Merchant, 1992; Young, 1999). Field research in accounting typically describe observations of phenomenon and reflect on the theoretical significance of those observations (eg., Dent, 1991; Abernethy & Chua, 1996; Perera *et al*., 2003).

A researcher's choice to use a particular research method may be influenced by certain strengths and limitations of that method. One of the main advantages of field study methods is, it gives researchers access to the 'real world' of practice, and consequently enables examination of the phenomenon within the real organisational context and gaining a better understanding of the phenomenon examined in the study (Atkinson & Shaffir, 1998). Also, the opportunity that is available within field study methods to use multiple data sources including observations, interviews and document analysis, enables the generation of rich and more accurate descriptions of the phenomenon under consideration (Atkinson & Shaffir, 1998). Field studies are seen not only as establishing in-depth study of the processes by which people make sense of their actions and experience, but also as a research approach that helps to answer complex 'how' and 'why' questions (Chua, 1996).

A researcher may have second thoughts before applying field study methods for reasons such as validity and reliability issues and other difficulties associated with field based research.[3] Field studies are particularly subject to validity and reliability issues mainly because of the researcher's direct intervention in collecting and analysing data, and the nature of issues addressed using such methods. According to McKinnon (1988, p. 37), observer caused effects (eg., researcher's presence in the research site causing a change in the normal behaviour of participants) and observer bias (i.e., the distorted effect of the researcher's selective perception and interpretation) are some of the main factors that affect validity and reliability of a field study.[4] Additionally, data access limitation in field research could make the researcher examine 'less than the complete phenomenon they claim to be studying' (McKinnon, 1988, p. 38). Another threat to validity and reliability of a study, which in fact is not limited to field study methods, arises due to complexities and limitations of the human mind (McKinnon, 1988).

Difficulties associated with field studies span across three stages in the research process, namely prior to data collection, during data collection, and after data collection (Young, 1999). Getting access to a suitable research site has been cited as a major problem faced by field researchers at the initial stage. Field researchers are expected to minimise sample selection bias when selecting the research site. However, because of the limited opportunities available to them, researchers often select those organisations that are willing to cooperate, those that have a unique situation, or those who needs outside help. Field researchers are forced to make various trade-offs, such as limiting the number of interviewees to a manageable number and make choices about the breadth and depth of

field coverage. At the initial stage when developing the research design, careful consideration is needed about the trade-offs that may have to be made during the research process and the ways in which the effects of those trade-offs will be minimised (Abernethy *et al.,* 1999). Another demand placed on field researchers at this stage is the need to develop required skills. Such skills may include interviewing, note taking, questioning, and listening skills as well as skills to collect and manage large amount of data and to analyse them using appropriate procedures.

At the second stage, namely during data collection, a field researcher needs to be extremely cautious to avoid any 'slippages' that could damage validity, reliability and trustworthiness of the study (Brownell, 1995). Data collection methods can introduce biases in various ways (for example due to biased responses from interviewees, coding and interpretational biases). A field researcher could face difficulty in obtaining site cooperation, even after getting access to the research site. In addition to the concern about whether the site cooperation can be obtained and maintained throughout the study, the possibility of not getting any new findings is another major concern for field researchers (eg., Young & Selto, 1993). Additionally, this stage could be costly in terms of researcher time and costs as the researcher may have to pay a number of visits to the research site as well as gather information from different sources (Yin, 1994). The desired degree of breadth and depth of field coverage is another issue that the researcher needs to consider carefully at this stage (Abernethy *et al.*, 1999).

Major concerns at the third stage include how to manage the large amount of data gathered from multiple sources and avoid 'drowning' in the data (Dent, 1991), how to analyse them and how to do the write up. The objective of most field based accounting research appears to be to describe the phenomena under consideration and to reflect on the theoretical significance of their observations. The application of the theoretical framework to interpret the observations requires a considerable amount of patience as well as impartiality on the part of the researcher. At the same time the researcher needs to possess high analytical skills as well as writing skills. Unlike other commonly used empirical research methods, such as survey and laboratory experiments, no generally followed format exists when writing a paper based on field data. How to package the study in the most economical way is another challenge often faced by field researchers.

Further down this final stage, field researchers also face difficulties when they seek to get their work published. The survey conducted by Ferreira & Merchant (1992) on field based management accounting publications in ten publication outlets including mainstream accounting journals, a business journal, and monographs, reveals that for the period 1984-1992, only three journals had more than ten field study papers, and only four journals had more than five published papers. These limited numbers may suggest a number of things, including field researchers not producing publishable papers, the nature of reception by certain journals, and some journals' reluctance to provide space for field study research. Field researchers often become frustrated because of the difficulty in satisfying reviewers who expect the same degree of validity and reliability as from cross-sectional survey based research and laboratory experiment based research (Abernethy *et al.*, 1999).

The application of field study methods, however, varies between different disciplines as well as within disciplines in terms of philosophical underpinnings, motivations, research design and data sources used (Chua, 1996). Ferreira & Merchant (1992) conducted an

extensive survey of management accounting controls related field research published in the period 1984-1992, and identified 82 published field studies during that period. They have noted the diversity of those publications in terms of studies' motivation, research design and presentation formats. Three main groups of studies were identified based on motivation, i.e. those that aimed at providing a description, those that aimed at theory building and those that aimed at hypothesis testing (p. 11). The differences observed in research designs include the characteristics of the sample, the method of sample selection, the data collection method(s) and the time frame of the study (p. 13). In relation to the presentation format, Ferreira & Merchant (1992) state that "the writing outlines of the field research publications are highly varied, and many of them are quite unlike those of other forms of empirical accounting research" (p.16). While some studies follow the standard empirical papers, the majority focus primarily on the findings with relatively little description of the research method (Ferreira & Merchant, 1992, p. 16). They have noted two more differences in the presentation format: the discussion of possible biases in the study and their effect on the generalisability of results; and "the attention paid to the discussion of other competing theories that could explain the observed phenomenon" (p.17).

The field study discussed in this paper can be explained as a study aimed at describing an organisation's response to a certain phenomenon that occurred over a ten-year period, using data collected from multiple data sources. As the study was conducted to fulfil the requirements of doctoral studies, the presentation format was similar to a standard PhD thesis, incorporating chapters on introduction, literature review, interpretational framework, research method, findings and conclusions. However, the chapters on findings of the study, which also incorporate the interpretation of the findings using the theoretical framework, represent the bulk of the thesis, which is a typical characteristic of field based research.

Field Study Methods within a Research Context

It is argued that the research method used in a study should depend on the question addressed in the study (Abernethy *et al*., 1999). Although there is a range of research methods available to accounting researchers (e.g., survey, experimental, case study, field study, ethnography), not all are amenable to address any type of research question. While some methods may be totally inappropriate to address certain research questions (eg., laboratory experiments to examine historical developments, and archival methods to examine current practices), others may be seen as more appropriate to examine a particular research question. For example, case study, field study and ethnography methods are often considered more appropriate to examine phenomena in their real organizational settings (Brownell, 1995; Yin, 1994).

Field study method was chosen for the study discussed in this paper for a number of reasons. The study aimed at understanding the nature and the form of change in management accounting practices (MAPs) in a government trading enterprise (GTE) and the factors that stimulated or generated such change. To address this type of research question, field study methods was seen as more appropriate than the other commonly used empirical research methods. As argued by Ferreira & Merchant (1992), field research

is particularly powerful when studying issues that are contextually contingent. Also according to Hopwood (1983) and Kaplan (1983), field based research is essential for understanding innovations (and changes), and the consequences of implementing those adequately.

To achieve the aim of the study discussed in this paper, data had to be gathered from a public sector organization in relation to (a) the nature and the role of a number of MAPs adopted by the organization during the event period; and (b) the changes that had taken place during that period within the organization and in the external environment.[5] When considering these requirements, again, field study methods was deemed more appropriate because it enables gathering data from a real organization setting while having direct contacts with the relevant organisational members, and also it equips the researcher to use multiple sources to gather data. Additionally, it was expected that the use of field study methods will help to enhance the 'trustworthiness' of research findings (Lillis, 1999). Nevertheless, at the same time, I was aware of the difficulties, limitations and trade-offs when conducting field based research.

The section that follows details the study procedure. It describes how an organisation was selected, how access to the case organization was obtained, the procedures adopted to collect data from multiple sources, the data coding procedure, and writing-up the findings.

The Study Procedure

The initial step of the research project was to gain access to a GTE. Once the potential research site was identified, prior to 'getting in', it was seen important to get some background information about the organization, and also to identify the event period for the study. The literature on the organization, including annual reports, was expected to help in this regard. Furthermore, semi-structured interviews were considered as the main data source, and a questionnaire was designed for this purpose. Another important decision that had to be made at the design stage was how to get some understanding about community perspective and concerns about the events that had taken place in the case organisation. Obtaining this information was seen as important because of the emphasis placed on this aspect in the interpretational framework that was to be used in the study. Media reports and literature on public sector in general, and the case organization in particular, were regarded as appropriate sources to achieve this objective. Procedures in relation to each stage are explained in detail in the following sub-sections.

Selection of the Organization

The selection of the field site is the most critical part of field research. The site should be selected based on the opportunities it offers to understand the significant effects of the variables that are of most interest in the study (Young & Selto, 1993). An organization that has undergone considerable organizational change was selected for this study, because such an organization was expected to enable a better understanding of the effects of such change on management accounting practices, and how accounting was implicated in the process of change. The selection of such an organization also provides the opportunity

to ask explicit questions about the impact of changes in institutional elements of the organization on the management accounting practices. The experience that the organizational members have had in the change process, and hence their knowledge in relation to change, is likely to place them in a better position to answer potential questions about the change process.

The organization selected for the study was a large electricity retailer in NSW (hereafter referred to as the "Energy Utility"). This organization was identified as suitable for the study for two main reasons. Firstly, the readings on the public sector in general, and GTEs more specifically in NSW, suggested that the case organization had undergone significant structural changes over the period at issue in the study. The organization was also recognised as one of the forefront organizations in terms of its adaptation to the environmental changes, which took place over the period concerned (NSW Treasury, 1994, p. 109). Secondly, the positive attitudes that the case organization is known to have in supporting community work and research inspired the consideration of it as the case organization. This attitude of the organization was revealed in a number of informal discussions that the researcher had with employees of the organization on several occasions. Often researchers are unable to access organizations because powerful people and institutions deny access when they do not wish themselves or their decision making processes to be studied (Gilbert, 1996). The positive attitude of the organisation in general and of those who the researcher had to interact with throughout the research project was regarded as important in facilitating access and cooperation for the researcher.

Approaching the Organization

Getting access to organizations is a central problem encountered by field researchers (Ferreira & Merchant, 1992; Cassell, 1988). Organisations are often unwilling to participate in research studies for various reasons. These may include the lack of interest of the organisation in the research question the researcher(s) intend to address, sensitivity of information sought by the researcher, organisation not convinced due to the researcher's background or style, and problems that might have arisen due to bad luck, for instance inappropriate timing (Ferreira & Merchant, 1992). Cassell (1988) has described two problems that a field researcher has to address in relation to getting access; getting in (achieving physical access) and getting on (achieving social access). When seeking access, as an initial step, it is necessary to invest time in order to learn about the organization from other sources. After identifying Energy Utility as a potential research site for the study, the researcher sought to gain some background knowledge about the organization before formally approaching anyone from the organization. Such background knowledge was sought for three reasons:

i.   to obtain a general understanding about the organization (including the organization's history and important events in the organization's life, the nature of its activities, what it has been trying to achieve and what it has achieved, and external influences on the organization);

ii.   to be able to speak the language of the organization (Gilbert, 1996); and

iii. to demonstrate to the organization that an effort had been made to understand its background.

A general understanding of the organization was gained through publicly available documents about the company (e.g., public addresses given by officials in Energy Utility), annual reports of the company, informal discussions with participants from the company in the Financial Management Improvement Program (FMIP),[6] and discussions with outsiders who had some understanding about the organization (e.g., the program organiser of the FMIP, and a former deputy director in the NSW Treasury).

During informal discussions with the Executive Manager – Finance of the energy company at one of the FMIP program's certificate presentation ceremony in August 1996, the researcher had the opportunity to inquire about the possibility of access to the organization, and a positive response was received. A letter was then sent to him outlining in writing the objectives of the study, and to request a formal meeting with him in about two months. Gaining access to the organization through the Executive Manager – Finance was seen as a generous opportunity as he was positioned at a top level in the hierarchy of the organization. Getting the support of senior management was seen as important in minimising problems that might be encountered in accessing managers at other levels (Young and Selto, 1993).[7]

The main objectives of the formal meeting with the Executive Manager – Finance were to obtain an assurance of access to the organization and to get some assistance in identifying suitable people to participate in the study. Careful selection of respondents in field study research is important as it provides not only a comprehensive set of data but also a data set which is sensitive to a variety of perspectives (McKinnon, 1988, p. 51). As part of the preparation for the meeting with the Executive Manager – Finance, a list of potential interviewees was prepared. A list of the FMIP participants from the energy company since 1992 was obtained from the program organiser. Employees who were considered to be in a position of knowledge to answer the research questionnaire were selected from the list.

The initial list of potential interviewees was a starting point. However, the researcher needed assistance from someone within the organization to select the final sample. One reason for this was to obtain information about the length of time the employees on the initial list had been with the organization. Secondly, the researcher wanted to ensure a broad coverage of employees, rather than limiting to FMIP participants, and also to have the opportunity to access individuals who were in a good position to answer questions pertaining to the research project. The third reason for seeking assistance from the organization was that before preparing the final list, the suitable interviewees had to be contacted to ensure their willingness to participate in the study. The involvement of a senior manager within the organization in this process was seen as a means to gain support from potential interviewees (Gilbert, 1996; Young & Selto, 1993).

In early February 1997, the Executive Manager – Finance was contacted by phone to organise a meeting. At the same time another manager (Manager – Quality Assurance), who had been with the energy company for a long period with an understanding of the events that have taken place in the organization, was also contacted. This person who had undergone the FMIP program was introduced to the researcher by the FMIP organiser.

Difficulty associated with getting willing participants and the importance of the support of top management is well acknowledged in the literature on field study methods. Therefore, the meeting with the two managers was treated as an important stage in the whole project. In the meetings, I first explained the objective of the study. The work that

I had already done as preparation to conduct the interviews (i.e., annual report review, questionnaire preparation, the list of potential interviewees) was also outlined. I then described how I would like the Energy Utility to help me with my research. In this discussion, I emphasised the non-threatening nature of the questions to be asked in the interviews, and also assured confidentiality and anonymity (Gilbert, 1996). In addition, I offered to show the draft of those sections of the report based on the interview data before incorporating them into the final report (Yin, 1994; Parker and Roffey, 1997). This was seen to be important for several reasons. The first reason is to ensure that the organization is comfortable with what will be reported in the thesis. A second important reason is to ensure that events and statements have been understood and interpreted correctly by the researcher. The exposure of this material back to the organization is a validity check, as well as a courtesy.

This initial meetings with the Finance and the Quality Managers lasted one and a half hours, and an hour respectively. At this point, it appeared that access to the organization was not going to be a problem and also that consent to conduct the research had been obtained. Although the initial access was assured, access to suitable interviewees and their cooperation was yet to be negotiated.

After establishing the importance of getting interview data for the study, I sought the help of both the Finance and Quality Managers to identify suitable interviewees. Consequently a number of people were selected as suitable to answer the questionnaire from the different groupings on the list that I had prepared. More people to interview were to be identified later with the assistance of those who had already been selected for the study. The next step was to ensure whether the selected people were willing to participate in the study and to get some assurance of their co-operation. One of the managers (the Quality Manager) took the responsibility to check with the selected individuals, and it was further decided to distribute copies of the questionnaire that was developed to guide the semi-structured interviews to those selected in advance of the interviews to ensure they were comfortable and familiar with the questions they were to be asked.

It took more time than was initially expected to get the finalised list of potential interviewees from the organization. The main reason for the delay was that the manager who took the responsibility to finalise the list left the organization. Due to work pressures, the person to whom the responsibility of finalising the list was passed on, was unable to do anything about it for a few weeks. Soon after receiving the list, my next task was to phone the potential interviewees to organise a date and a time for the interviews. Since those who were on the list already had a copy of the questionnaire, which had a cover page with a brief description of the study, it made things easier for both parties. Table 1 shows the time line from initial contact through various stages of contact with the organization.

Method of Data Collection

The study used multiple data sources, including semi-structured interviews, media coverage, review of annual reports and the publicly available documents of Energy Utility and the public sector in the state of NSW. The use of multiple sources of evidence within a single study is known as data triangulation (Denzin, 1978; Yin, 1994).[8] It is suggested that data triangulation helps researchers to capture a comprehensive, holistic and contextual portrayal of events under study (Denzin, 1978; Jick, 1979) and hence permits

Table 1: Time Line of the Study

15 August 1996	First encounter with the contact person (Executive Manager – Finance).
14 February 1997	A formal meeting with the Executive Manager – Finance to organise access. A formal meeting with the Quality Manager.
27 March 1997	Advised that the person who was delegated the responsibility of selecting the interviewees (Quality Manager) had left the organization
10 April 1997	Received a list of potential interviewees.
22 April 1997	Conducted the first interview.
28 July 1997	Conducted the last (25th) interview.

the researcher to address a broader range of issues related to the phenomena under study (Yin, 1994). It is also claimed that data triangulation helps the researcher generate a rich source of field data with internal checks on its validity (Hoque & Hopper, 1994, p. 7).

Despite its strengths, data triangulation has a number of limitations. It imposes a burden on the researcher and is more costly than when data are collected from a single source (Yin, 1994, p. 94). Obtaining evidence from multiple sources requires the researcher to know how to carry out a variety of data collection techniques. In addition, a researcher has to put more effort into organising, documenting and analysing the data that have been collected from multiple sources than a researcher who uses a single source of evidence. Another problem commonly encountered by case study researchers, particularly those who use multiple sources of evidence, is the problem of "drowning in the data" (Dent, 1991, p. 711).

For a number of reasons it was seen to be important in the current study to adopt a method that permits the above discussed benefits. First, a single data source alone, whether it is a questionnaire survey, interviews or documentary evidence, would not allow a sufficiently comprehensive analysis to adequately address the three research questions of the study. For instance, in order to understand the factors that influenced the MAPs in the organization, data had to be collected from within the organization as well as outside the organization because MAPs are influenced by individuals and institutional factors, inside as well as outside the organization (Ansari & Bell, 1991; Ouilbrahim & Scapens, 1989). Hence, in order to examine this issue, structured interviews with a sample of the employees of the organization, an examination of the media coverage of the organization, and a review of the academic literature and other publicly available documents about the NSW public sector in general, and GTEs in particular, had to be carried out.

Second, rather than examining the cross sectional relationship between selected variables, the current study aims to explain how the use of MAPs changed over a ten year period, what factors stimulated those changes and the outcome of the change. In order to address these issues, which are longitudinal in nature, it was necessary to have a broad data base. Such a data base can be generated more effectively through the use of multiple sources of evidence. Third, it was also expected that data collected from different sources would provide an internal check on the validity of the data (Hoque & Hopper, 1994, p. 7;

Lillis, 1999). The soundness of the judgements or subjective assessments that a case researcher often has to make can be enhanced when there is backing from separate pieces of evidence from different sources as opposed to evidence that flows through a single source. Both Yin (1994) and Brownell (1995, p. 61) comment on presenting evidence as a 'chain of evidence'. In the current study, it was expected that the review of the media coverage of the organization and the organization's annual reports together with the interview data, would provide a chain of evidence to support the conclusions of the study.

To address the problem of "drowning in the data" (Dent, 1991, p. 711), from the beginning data collected from different sources were documented systematically. More importantly, at the study design stage, the set of evidence that was to be sought to address the research questions and the sources of data to be used to collect evidence were established (Brownell, 1995). This approach not only enabled the researcher to enter the field with a clearer vision, but also provided a guiding mechanism to identify the type of information that needed to be gathered in the data collection process. In addition, throughout the data collection process, particularly in relation to the structured interviews, three types of notes were recorded: observational notes (i.e., detailed records of what the researcher hears and sees); theoretical notes (i.e., developing ideas about the data in the observational notes); and methodological notes (i.e., which research strategies have been followed) (Schatzman & Strauss, 1973, pp. 99-104). This form of note taking, in addition to providing a record of the data, provides a means to manage the research, and also allows control over threats to validity and reliability (McKinnon, 1988, p. 46).

Reliability is one criterion used to assess research. In relation to field study research, Brownell (1995, p. 65) suggests that, "reliability in this sense is directed toward the elimination of errors and biases in a study". In her discussion on the ways to address threats to validity and reliability in field research, McKinnon (1988) detailed three strategies (substantial length of time in field, multiple methods and observations, social behaviour while in field) and five tactics (approaches to note taking, choice of type of participant observation, the use of team research, informant and respondent interviewing, and probing questions). Yin (1994) proposed two procedures to maximise the reliability of a case study, namely the development of a case study protocol and a case study database. The case study protocol is a document that serves as a logistical procedure guide (Yin, 1994). The documentation of the planned procedures prior to the commencement of the study and keeping records of any departures from this initial guide provide a record of what was done and how it was done and, hence, enhances the reliability of the study. In addition to the development of a case study protocol, maintaining a well classified database (e.g., case notes, documents, tabular material and narratives) also enhances the reliability of a case study, as such records enable assessment of the meticulousness of the study undertaken (Yin, 1994).

The above mentioned procedures to address validity and reliability threats were adopted where possible in the current study. At the commencement of the study a general procedural guide was prepared. This incorporated: the project overview (i.e., the study's major research questions, major propositions to be examined, phenomena which must be assessed, the type of information that needed to be gathered, the level of analysis, the research method); field procedures (data collection techniques, questionnaire); and the framework of the thesis (Yin, 1994).[9] The use of multiple sources of evidence and the

selection of a number of interviewees from each functional area were other measures taken to improve validity and reliability of the study (Yin, 1994; McKinnon, 1988). Also, from the beginning, data collected from various sources (e.g., literature review, annual report review, review of the media coverage, interviews) were documented and classified appropriately (e.g., in terms of observational, theoretical and methodological notes).

The following sub-sections describe the specific procedures that were followed to collect data from the review of annual reports, structured interviews, and media coverage respectively.

The Review of Annual Reports

A review of the annual reports of the host organization was carried out mainly to obtain an understanding of the antecedent period, the event period and the outcome of the change.[10] This information was expected to be used to corroborate the evidence found from other sources such as interviews, and hence, was a means of improving the validity and reliability of the study (Yin, 1994; McKinnon, 1988). As discussed earlier, in addition to getting factual information for the research, the annual report review was used for a number of other purposes including placing the researcher in a position to facilitate access to the host organization and identifying the events that had affected the organization over the period concerned and the themes that were emphasised in the reports over that period. Further, annual reports were used to inform the design of the questionnaire for the structured interviews.

The review of the annual reports suggested that the main events and developments that took place in the company from 1970 to 1996 were related to three themes, namely goals, structure, and culture. Furthermore, the review suggested a potential relationship between the themes and the use of accounting information. Such a relationship is also supported by the accounting controls literature (Abernethy & Chua, 1996; Ogden, 1995; Dent 1991; Waterhouse and Tiessen, 1978; Bruns and Waterhouse, 1975). The three themes that emerged in the review of annual reports were used later in the design of the questionnaire as the internal stimuli for change in the use of MAPs. The interviewees were asked to discuss the relative importance of each of the three internal stimuli. The use of the three themes in the interviews also provided a test for validity and reliability of the internal stimuli that emerged from the review of the annual reports.

Semi-structured Interviews

Semi-structured interviews were one of the main data sources for the study, and was the only source that was available to learn about the MAPs in the energy company. The interviews, which were based on a structured questionnaire, could be described as "a structured conversation used to complete a survey" (Dane, 1990, p. 128). This approach was considered as appropriate as 'it helps to elicit information in circumstances where the researcher is keen to secure the actor's (interviewee's) view' (Chua 1996). Additionally, it was expected that the use of a structured questionnaire would allow the interviews to be conducted more efficiently and to generate and gather more useful and relevant information within a short duration. It was decided to limit the duration of each interview to an hour whenever possible as the majority of the interviewees were managers who operated

under time pressures. The design of the questions for the structured interviews was informed by a number of texts on research methods, including Yin (1994), Brownell (1995), Dane (1990) and Gilbert (1996).

The Design of the Questionnaire

A number of important considerations were relevant in designing the questionnaire. First, it was considered necessary to gather data which would enable the effective use of the analytical framework (i.e., the institutional framework in the current study). The items included in a questionnaire should be at least partially derived from theoretical interests. It is also important to give careful thought to what questions are to be answered by the data (Dane, 1990, p. 123). Failure to do so is likely not only to inhibit the development of a quality data set, but also could constrain the external validity of the study, where attempts are made to generalise a particular set of results to some broader theory (Yin, 1994).

Second, it was considered necessary to have a set of probe questions. Probe questions are used to prompt the respondents to elaborate a particular response (Dane, 1990, p. 130). They also, "allow the researcher to quiz the subject further about any unsolicited statements that were made, or about a response to a specific question" (McKinnon, 1988, p. 51). They are often useful to elicit more focused as well as more comprehensive answers from respondents. Probe questions can also be used should a respondent begin to drift off the topic (Dane, 1990, p. 130). Third, it was important to keep the questionnaire short. A lengthy questionnaire may not only discourage potential people from participating in the study, but may also limit the time available to discuss important and relevant issues. A concise questionnaire, in general, is likely to provide a good response (Gilbert, 1996).

The design of the questionnaire was guided by the interpretational framework used in the thesis (i.e., the institutional framework). Questions were designed to help examine the change in MAPs as institutionalised practices and to identify elements in the internal and external institutional environment that had stimulated the change.

In designing the questionnaire, conscious effort was made to minimise bias due to poorly constructed questions (Yin, 1994). The designing of the questionnaire was found to be an iterative process and it developed progressively. The questionnaire was discussed with, and examined by a number of colleagues who have experience in this area. In addition, the questionnaire was discussed in an informal meeting that I had with a prominent researcher at a conference sponsored by the Accounting Association for Australia and New Zealand. It was also reviewed and pre-tested by two outside experts, mainly to see whether the terminology used was consistent with that used in the public sector in general and to ensure the clarity of the questions (Yin, 1994).[11]

The questionnaire was divided into three sections, with the respective headings: (i) Changes in the use of management accounting practice; (ii) Stimulus of change; and (iii) How did the changes take place.[12] Each is discussed in turn below.

Changes in the Use of Management Accounting Practices

Four management accounting practices were examined in this study. They were budgeting, capital budgeting, performance measurement and transfer pricing. The first part of the

questionnaire was designed to obtain data on: (i) the extent to which the use of each of these techniques had changed over the period at issue; and (ii) the main differences in the way those techniques were being used at the end of the period compared to their use at the beginning. A number of closed ended questions were used in this section. The extent of use of the techniques in the mid 1980s and mid 1990s was measured on a seven point Likert scale ranging from "not used at all" (1 on the scale) to "used to a very great extent" (7 on the scale). A number of probe questions were also developed to be used when the interviewee was asked to talk about the main differences in the way the techniques are being used. This was necessary to help and guide the interviewee to discuss the information relevant to the study. An example of such a probe question following the scaled question asking about the extent of use of, say, budgets was, "could you please tell me how has the use of budgets to measure performance changed over this period?".

Stimulus for Change

The second part of the questionnaire was about stimuli for change. The study focused on both external and internal stimuli. With regard to the external factors that stimulated changes in MAPs, an open question was asked, giving the interviewee the opportunity to talk freely about the perceived factors that were likely to have caused the changes. However, a number of probe questions were developed to be used if the interviewee did not extend his/her answer to cover what was needed to learn about the external stimuli for change. With regard to the internal factors that stimulated change, interviewees were given some direction by providing a set of specific factors that the researcher was interested in. These factors, which were previously identified from the review of annual reports included organizational goals, organizational culture, and structure.

The approach in relation to the stimuli for change was to be non-directive about the external factors because they are more generic and more pervasive of the organization in total, and the researcher wanted to see if the interviewees spontaneously corroborated the external factors that were identified from literature and other sources. With respect to the internal factors, the researcher chose to be directive because information was sought on specific MAP components and on specific stimuli for change in those components. For the former (external factors), the researcher was essentially seeking corroboration of the over-arching factors; for the latter (internal factors), the researcher was seeking answers on the relative perceived importance of a set of specific factors, previously identified from the review of annual reports.

The use of probe questions in the discussion of external and internal stimuli was also expected to address a threat to validity and reliability in field studies identified by McKinnon (1988). This threat results from the complexities and limitations of the human mind. According to McKinnon (1988), it is important in field research to create conditions and opportunities for respondents to both know and say what they mean, because there is a natural tendency for people to take for granted certain happenings in the setting, so that they may not be consciously aware of those happenings or their underlying rationale. Also, "people do not walk around with well thought out views and opinions, just waiting for a researcher's questions" (McKinnon, 1988, p. 39).

How Did the Change Take Place

The third part of the questionnaire referred to the way the change took place. The questions that appeared in this section address the nature of the change process (i.e., whether it was difficult to introduce change), the mechanisms used to introduce change, and the outcome of the change. A number of probe questions were developed for this part of the questionnaire. For instance, one of the probe questions to follow the question "Were the proposed changes to MAPs discussed widely within the organization before their implementation?" was (i.e., if the answer was 'yes'), "Could you please tell me a little bit about the nature of these discussions, for instance, who participated in these discussions, what was the purpose of such discussions?".

After putting together the questions that seemed to be required to answer the three research questions, each question was further reviewed to understand what part of the interpretational framework was to be addressed by that question. This led to another round of revisions to the questionnaire.

Once the questionnaire was finalised, a cover page was prepared. On the cover page, the title of the research project, the aims of the study and the researcher's name, position and university address were stated. Attaching a cover page to the questionnaire with these details was considered useful because of the intention to distribute the questionnaire to the interviewees prior to the interviews.

Interviews

The interviewees were selected from four areas (i.e., accounting, engineering, administration and management). The four groups broadly represented a cross section of the employees in the energy company. It was expected that the selection of people from different areas within the organization would enable a comprehensive analysis and provide a variety of pespectives (McKinnon, 1988, p. 50). The inclusion of a number of people from each of four main areas was expected to address another threat to validity and reliability of a study. This threat is caused by natural human tendency to report events in a certain way, for instance, in a manner most flattering or acceptable to the person (McKinnon, 1988, p. 38). Such biased views can be detected by getting the views of a number of people about the same phenomenon as it facilitates cross checking of respondents' answers.

Another factor considered in selecting the sample was the length of time the potential interviewees were with the organization. As the objective of the study was to examine the changes in the use of MAPs over the period from the mid 1980s to the mid 1990s, it was necessary to select people who were with the organization for at least that period. The aim was to interview between 20 - 30 people from the organization. In addition to people from within the organization, it was decided to interview selected people from outside the organization who had some knowledge about the host organization. This was mainly to get an outsider's view about the issues of interest in the study (McKinnon, 1988).

Twenty-five organisational members from Energy Utility participated in the study. The group of interviewees were constituted as follows: seven from accounting; eight managers who held either a line or a staff managerial position; six engineers; and four from administration. In addition, two outsiders were also interviewed. The two outside

interviewees were, respectively, a former deputy director in the Treasury of the state of NSW, and the program organiser of the FMIP who had close connections with Energy Utility in addition to a good understanding of the public sector in NSW. The use of multiple interviewees enabled cross checking of each person's responses.

Of the 25 organisational members, 20 were selected initially (in collaboration with the Executive Manager – Finance and the Quality Manager). A further five were subsequently recommended and introduced in the interview process by other participants in the study. Except for these five, all participants in the study received a copy of the questionnaire prior to the interview with a covering letter from the organization, introducing the researcher and requesting participants to provide the needed assistance for her to conduct the study (Yin, 1994). The five participants who were subsequently added to the list received copies of the questionnaire directly from the researcher prior to the date of the interview. It was expected that the distribution of the questionnaire prior to the interview would enable the interviewee to read the questionnaire and come prepared for the interview. Also, it was hoped that such prior distribution of the questionnaire would enable the interview time to be used more effectively. Managing the interview time effectively was considered important from the beginning of this research process as managerial time has been identified as a significant constraint in field research (see Ferreira & Merchant, 1992, p.25).

At each interview, anonymity and confidentiality was assured. Such assurance was seen as important to obtain quality information, particularly if the issues to be discussed are regarded as sensitive (Dane, 1990, p. 124). Also at the interviews, after providing a general introduction to the study, the way in which the questionnaire was structured and the issues pertaining to each part of the questionnaire were briefly described. The first part of the questionnaire was then answered by the interviewees.[13] The questions in the second and third parts of the questionnaire were covered in the form of a discussion, with interaction between the interviewer and the interviewee. Nevertheless, most of the time, the interviewees were allowed to talk freely without the interviewer interrupting. This was mainly because of the need in field research to "play down or suppress one's views or political sympathies in order not to bias data collection" (Chua, 1996, p. 13). However, where necessary, probe questions were used to elicit information and also to provide some direction.

The interviews lasted between 45 minutes and 80 minutes. It was decided to tape record the interviews where possible in order to avoid inaccuracies due to poor recall and, poor or inaccurate articulation (Yin, 1994, p. 85). All but three of the 25 interviewees permitted the interviews to be taped. The content of the tapes were transcribed and were later used to verify, with the aid of an independent referee, that the researcher did not bias the responses of the interviewees (Gordon & Narayanan, 1984, p. 38). This was done by comparing the response of an interviewee to a particular question with the interpretation given to it when it was incorporated in the research document.

Media Coverage

Media reports about the organization were identified as a source which could provide a rich data base for the study. Particularly, news items were seen as a useful source to learn about the community's interests and concerns about the status and activities of the organization. This source of evidence was also seen to provide another perspective of

the events taking place within the organization (i.e., outsiders' views) (McKinnon, 1988). Furthermore, newspaper items enabled me to identify, reinforce and validate important pieces of information found from other sources about the organization (Yin, 1994).

The Sydney Morning Herald, which is one of the most widely circulated daily newspapers in NSW was reviewed from 1980 to 1996. With the help of two indexes namely ABIX (Australasian Business Intelligence Index) and INFOQUIK,[14] the newspaper items on the energy company were identified.[15] Using microfilm, each item was reviewed for relevance, and copies were taken of the relevant items. These were later reviewed more thoroughly and then coded using the coding system developed for the study.

Data Coding

The procedure suggested by Parker and Roffey (1997) was used, with some variation, in this study to code the data collected from the interviews and from the review of media coverage and annual reports. Informed by the interpretational framework adopted in the study, and the three research questions that the study sought to address, a number of constructs were identified. [16] The list of constructs was reviewed by two academics to ensure the list included the items that would capture the data needed in addressing the research questions within the institutional framework. For example, the inclusion of the constructs of political, social and economic environments was necessary in order to examine the impact of the elements of the institutional environment on the change in MAPs. After making some minor amendments the list was finalised and contained twenty-three constructs. The twenty-three constructs were then organised under three 'code names' namely 'change', 'stimulus' and 'outcomes'. Each construct (i.e., memo name) was appropriately labelled for the subsequent use in memo cards.

A memo card system was maintained for each code name. A one page memo card was assigned to each entry (i.e., a piece of evidence) under a memo name. The following information was entered on the memo card: (i) code name and the page number; (ii) source of data; (iii) a brief summary of what was said; (iv) comments on what was said appeared to mean; and (v) a cross reference if necessary. A coding summary was maintained in order to keep track of the number of memo cards under each memo name. In addition, an abbreviated label was developed for each memo name which was to be used at the location of the source of evidence. For instance, 'Ap3' meant that that particular piece of evidence related to 'change' (A) in performance measures (p) and is recorded on page 3 of the memo cards.

This coding system was used to code the data collected from the two main data sources, namely from interviews and publicly available information. First, the recorded interviews were fully transcribed into hard copy. Then, each interview was examined to identify evidence relating to each of the three research questions. As and when evidence pertaining to a particular code name was identified, a memo card was opened and the relevant information entered. At the same time, the abbreviated code was entered where the evidence was found in the transcript. By adopting a systematic procedure in coding data, effort was taken to avoid 'slippage of reliability' of the study (Brownell, 1995, p. 7). Additionally, the coding procedure adopted for the items that were incorporated in the final report was reviewed by two academics familiar with the topic at issue in the study.[17] This was considered important as observer bias can enter at any or all of the three stages of registering, interpreting and recording of events (Schwartz & Schwartz, 1955, p. 91).

The coding procedure adopted in the study has two main benefits. The first is that it helped to address the observer bias threat to validity and reliability (McKinnon, 1988). Through this process the observer bias which may occur at the interpreting and recording stages could be addressed at two levels. First, using the coding system the researcher is forced to analyse the content of the initial information set meticulously, limiting the room for arbitrary categorisation or interpretation of data. Second, having another person review the coding procedure enables the identification of any observer bias that may have occurred. The other benefit of adopting the coding procedure was that it enabled the organization of a massive amount of data into a form that was amenable for analysis.

At the completion of the coding process, I had three main sets of data: data relating to "change", "stimulus", and "outcomes". In addition, within each set of data I had data in relation to a number of sub-categories. For instance, in relation to "change", there were seven sub-sets of data including change in the role of accountants and accounting, change in budgeting, capital budgeting and performance measurements.

Writing Up the Findings

One of the difficult but challenging stages in field research is writing up the findings (Ferreira & Merchant, 1992). Unlike some other research approaches such as cross sectional surveys and laboratory experiments, there is no standard or generally adopted way of writing the findings of a field research. Field researchers need to take an extra effort to explain clearly how data have been collected and also the measures taken to minimise threats to validity and reliability of the study mainly because of the common criticisms against field research. With this in mind, I described in detail, not only the sources and procedures used to gather the relevant information, but also the measures taken to avoid potential threats to validity and reliability of the study. Additionally, data gathered from multiple sources were used not only as evidence and to corroborate evidence, but also for triangulation. I had to make choices, particularly in relation to the use of interview data, such as how many interviewee quotes are sufficient to support a certain conclusion/ statement/observation, and how many quotes from different groups of interviewees (eg., accountants, engineers, administrators) are sufficient to provide different perspectives.

One of the difficulties faced by field researchers at the writing-up stage is how to manage the length of the report. I found managing the length, without losing the richness and quality of the study, quite challenging. Particularly, in order to avoid threats to validity and reliability, I had to provide 'sufficient' evidence, using data triangulation where possible, and at the same time I had to be conscious about the length of the paper. Field researchers typically go into considerable trouble to gather data, and consequently, are inspired to use as much of that data as possible in their final report. Again, I was forced to make choices as to how much to include in the final report and in what form.

Retrospective Assessment of the Adopted Research Method

Selecting the appropriate research method is an important decision every researcher has to make at the initial stage of the research process. Field study methods chosen for my study not only was adequate to address the research question, but also helped to conduct

and deliver an informative study. I was able to gather data through direct contact with the organisational members in the real organisational setting, and also to gather data from multiple sources. For a study of this nature, it is important to be able to get the interviewees express their knowledge about the relevant issues, and also for the researchers to make the right prompts at the right times to elicit relevant information. Also, a single data source alone would not have allowed a sufficiently comprehensive analysis to adequately address the research questions of the study

However, in retrospect, the quality of the study could have enhanced had I used the field study methods more rigorously. For instance, by tracking those former employees who had left the organization after the reforms were introduced, I could have obtained additional valuable information about the transition period. Also, more organisational members from different groupings (i.e., accountants, engineers etc.) could have been interviewed. Both these measures could have helped in further improving the reliability as well as the validity of the study. However, due to time constraints as well as cost-benefit considerations, I had to limit my efforts to what I did in the study.

In hindsight, I also feel that the study could have benefited if I had used the questionnaire that was prepared to facilitate the interviews, on a broader basis. A considerable time was spent to prepare the questionnaire, and with a few minor amendments, I could have sent it to a larger number of organisational members which could have further strengthen the findings of the study. Also, such a wider administration of the questionnaire could have enabled me to carry out statistical tests on certain implicit propositions made in the study.

Although the focus of the study was the changes in MAPs in the case organisation during the event period, the study does not tell the reader about the change process, but it rather provides a description of the outcome of the change process. This was inevitable as the study was conducted basically after the event, and also due to way the study was designed. Nevertheless, some understanding about the change process could have been attained had the study was designed to achieve that purpose.

From the initial stages of the study, steps were taken to systematically and objectively gather and analyse data. The data coding method that I applied in the study enabled me to effectively summarise the large amount of data gathered from different sources in a manner which facilitated the analysis based on that data. However, in hindsight, I could have also conducted a content analysis. Content analysis is regarded as a method that helps to improve the reliability of studies that have a high reliance on interview data (Brownell, 1995).

Summary and Conclusions

In management accounting research, field study methods appear to have been used more to provide descriptions of phenomenon than for theory building or hypothesis testing. The ability to examine issues within their organisational context with researcher's direct involvement is regarded as a major advantage of field study methods. Field researchers, however, are forced to make certain trade-offs in the process. One of the challenges they face is how to minimise the negative impact of such trade-offs.

The difficulties associated with field based research and the unique skills required to conduct such research could discourage, particularly novice researchers, from adopting field study methods in their research endeavours. At the same time, experienced field researchers may acknowledge that, once such difficulties are dealt with, there is a high likelihood of achieving relatively quality outcome from the research process. However, it is also acknowledged that there are certain inherent limitations of field research, particularly validity and reliability concerns, which are hard to eliminate completely. A field researcher can only do his/her best by adopting certain strategies and tactics that are available to minimise such concerns, and acknowledging their implications for the findings of the study. On the other hand, "failure to report how they were attended to prejudices the discussion and conclusion of the study restricting the audience who will read or accept the results (McKinnon, 1988, p. 35).

Field study methods are used in varying ways and to various extents in different disciplines and within disciplines. However, their use in management accounting research has taken various forms, for instance, those that have employed participant observations (eg., Baxter, 2002) and those that have relied mainly on interview data (eg., Perera *et al*, 2003). Depending on the research question and the availability of resources, a researcher has the flexibility to decide the extent to which field based method will be used. However, such flexibility needs to be used with caution to ensure that it would not affect the quality of the study.

The research study discussed in this paper aimed to describe how management accounting practices in a government trading enterprise changed from the mid 1980s to the mid 1990s, and the factors that influenced those changes. To examine this research question, the researcher appropriately selected field study methods. In the research process (through the design stage to analysis and writing-up of the report), the researcher took various measures to address commonly discussed threats to validity and reliability of field studies. Nevertheless, due to cost benefit considerations, the researcher had to make certain choices (trade-offs), for instance, with regard to the depth of the study (eg., not interviewing those who had left the organisation during the transition period).

It is expected that the study procedure detailed in this paper will give insights into the way in which field study methods may be used in general, and more specifically, to address a research question similar to the one undertaken in the study reviewed in this paper.

Notes

[1] Brownell (1995) is among the few exceptions.
[2] Useful references for the nature, scope, role and contribution of field research include McKinnon (1988), Covaleski *et al*. (1996), Yin (1994), Glaser & Strauss (1967), Atkinson & Shaffir (1998), and Chua (1996).
[3] See McKinnon (1988) for a detailed discussion on the types of threats to validity and reliability in field research, and strategies and tactics for addressing such threats.
[4] See also Atkinson & Shaffir (1998).
[5] It was decided to regard the ten-year period from the mid 1980s to the mid 1990s as the event period because the background readings suggested that the public sector in Australia has undergone significant changes since the mid- 1980s.

[6] The FMIP program was sponsored by Macquarie University. Participants of this program were often public sector employees. A large number of employees from the energy company have participated in this program over a number of years.

[7] Young & Selto (1993) acknowledged that a mistake in their study was not getting the support of the most senior management.

[8] Triangulation has long been used by military strategists and navigators as a strategy that uses multiple reference points to locate the exact position of an object (Smith, 1981).

[9] A number of changes had to be made to the initial case study protocol during the study period, to take account of the new insights, information and problems that emerged (Ferreira & Merchant, 1992, p. 4).

[10] The period prior to the mid 1980s was regarded as the antecedent period, and the period from the mid 1980s to the mid 1990s as the event period.

[11] One of these experts held a senior position in the NSW Treasury, and the other was a management consultant who provided consulting services to a number of public sector entities.

[12] Each section was designed to collect data to address each of the three research questions in the study.

[13] The content of each part of the questionnaire were discussed earlier under the subheading *The design of the questionnaire* in section. 4.4.2

[14] INFOQUIK has been developed by the State Library NSW Public Access Indexing System. It provides a comprehensive index to articles from 1988 onwards about Australia and Australians published in the Sydney Morning Herald and associated publications such as Sun Herald, Eastern Herald, Northern Herald and Good Weekend.

[15] The period from 1980 to 1987 was covered using microfiche located in the State Library of NSW. The period from 1988 to 1996 was covered using INFOQUIK. ABIX also provided a full text for the period from 1993 to 1996.

[16] The data coding procedure that Parker and Roffey (1997) explicated was for the use in a grounded theory approach. As the current study was guided by a theoretical framework the coding procedure could be started with a number of constructs that were informed by the theoretical framework. This was different from picking up the constructs that emerge from the data as is the case in a grounded theory approach.

[17] These two academics coded three interviews independently and compared their coding with mine. Out of the hundred and nineteen codes, questions were raised about twelve, seven were resolved and changes were made to five.

References

Abernethy, M. A. and Chua, W. F. (1996). A Field Study of Control System "Redesign: The Impact of Institutional Processes on Strategic Choice", *Contemporary Accounting Research,* Vol. 13, No. 2, Fall, pp. 569-606.

Abernethy, M. A., Chua, W. F. Luckett, P. F. and Selto, F. H. (1999). Research in managerial Accounting: Learning from Others' Experiences, *Accounting and Finance*, Vol. 39, pp. 1-27.

Ansari, S. L. and Bell, J. (1991). Symbolism, Collectivism and Rationality in Organizational Control, *Accounting, Auditing and Accountability Journal*, Vol. 4, No. 2, pp. 4-27.

Atkinson, A. and Shaffir, W. (1998). Standards for Field Research in Management Accounting, *Journal of Management Accounting Research*, Vol. 10, pp. 41-68.

Brownell, P. (1995). *Research Methods in Management Accounting*, Coopers & Lybrand Accounting Research Methodology Monograph No. 2, Coopers & Lybrand and Accounting Association of Australia and New Zealand.

Bruns, W. J. and Waterhouse, J. W. (1975). Budgetary Control and Organizational Structure, *Journal of Accounting Research*, Autumn 1975, pp. 177-204.

Cassell, J. (1988). The Relationship of Observer to Observed when Studying up, in R. G. Burgess (ed.), *Studies in Qualitative Methodology,* Greenwich, CT and London: JAI Press.

Chua, W. F. (1996). Issues in Substantive Areas of Research: Field Research in Accounting, in Richardson, A. (ed.) *Research Methods in Accounting,* Canadian General Accountants' Research Foundation.

Covaleski, M. A., Dirsmith, M. W. and Samuel, S. (1996). Managerial Accounting Research: The Contributions of Organizational and Sociological Theories, *Journal of Management Accounting Research,* Vol. 8, pp. 1-35.

Dane, F. C. (1990). *Research Methods* Brooks/Cole Publishing Company.

Dent, J. E. (1991). Accounting and Organizational Cultures: A Field Study of the Emergency of a New Organizational Reality, *Accounting, Organizations and Society*, Vol. 16, No. 8, pp. 705-732.

Denzin, N. K. (1978). The Logic of Naturalistic Enquiry, in Denzin, N. K. (ed), *Sociological Methods: A Sourcebook* (New York: McGrow-Hill).

Ferreira, L. D. and Merchant, K. A. (1992). Field Research in Management Accounting and Control: A Review and Evaluation, *Accounting, Auditing and Accountability Journal*, Vol. 5, No. 4, pp. 3-34.

Flamholtz, E. G. (1983). Accounting, Budgeting and Control Systems in their Organizational Context: Theoretical and Empirical Perspectives, *Accounting, Organizations and Society*, Vol. 8, No. 2/3, pp. 153-169.

Glaser, B. G. and Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*, Aldin: Chicago.

Gibert, N. (1996). *Researching Social Life* SAGE Publication.

Gordon, L.A. and Narayanan, V. K. (1984). Management Accounting Systems, Perceived Environmental Uncertainty and Organizational Structure: An Empirical Investigation, *Accounting, Organizations and Society*, Vol. 9, No. 1, pp. 33 - 47.

Hoque, Z. and Hopper, T. (1994). Rationality, Accounting and Politics: A Case Study of Management Control in a Bangladesh Jute Mill, *Management Accounting Research*, Vol. 5, pp. 5-30.

Hopwood, A. G. (1983). On Trying to Study Accounting in the Contexts in which it Operates, *Accounting, Organizations and Society*, Vol. 8, No. 2/3, pp. 287-305.

Hopwood, A. G. (1985). Accounting and the Domain of the Public: Some Observations on Current Developments, The Price Waterhouse Public Lecture on Accounting, University of Leeds, UK.

Hopwood, A. G. (1987),."The Archaeology of Accounting Systems," *Accounting, Organizations and Society*, Vol. 12, No. 3, pp. 207-234.

Jick, T. D. (1979). Mixing Qualitative and Quantitative Methods: Triangulation in Action, *Administrative Science Quarterly*, Vol. 24, No. 4, pp. 602-611.

Kaplan, R.S. (1983). Measuring Manufacturing Performance: A New Challenge for Managerial Accounting Research, *Accounting Review*, Vol. VIII, No. 4 pp. 512-532.

Lillis, A. M. (1999). A Framework for the Analysis of Interview Data from Multiple Field Research Sites, *Accounting and Finance*, Vol. 39, pp. 79-105.

McKinnon, J. (1988). Reliability and Validity in Field Research: Some Strategies and Tactics, *Accounting, Auditing and Accountability Journal,* Vol. 1, No.1, pp. 34-55.

New South Wales Treasury (1994). *Performance of NSW Government Businesses.*

Ogden, S. G. (1995), Transforming Frameworks of Accountability: The Case of Water Privatization, *Accounting, Organizations and Society*, Vol. 20, No. 2/3, pp.193-218.

Ouibrahim, N. and Scapens, R. W. (1989). Accounting for Control of a Social Enterprise: A Case Study of Algeria, *Accounting, Auditing and Accountability Journal*, Vol. 2, No. 2, pp. 7-28.

Parker, L. D. and Guthrie, J. (1993). The Australian Public Sector in the 1990s: New Accountability Regimes in Motion, *Journal of International Accounting, Auditing & Taxation,* Vol. 2, No. 1, pp. 59-81.

Parker, L. D. and Roffey, B. H. (1997). Back to the Drawing Board: Revisiting Grounded Theory and the Everyday Accountant's and Manager's Reality, *Accounting, Auditing and Accountability Journal*, Vol. 10, No. 2, pp. 212-247.

Perera, S., McKinnon, J.L. and Harrison, G. L. (2003). Diffusion of Transfer Pricing Innovation in the Context of Commercialisation: A Longitudinal Case Study of Government Trading Enterprise, *Management Accounting Research*, V;. 14 pp. 140-164.

Schatzman, L. and Strauss, A. (1973). *Field Research* Englewood Cliffs, NJ: Prentice Hall.

Schwartz , M. S. and Schwartz, C. G. (1955). Problems in Participant Observation *American Journal of Sociology*, pp. 343- 354: reprinted in McCall, G. J. and Simmons, J. L., (eds), *Issues in Participant Observation: A Text & Reader* Addison-Wesley, Reading, Mass, 1969, pp. 89-104.

Shields, M. D. (1997). Research in Management Accounting by North Americans in the 1990s, *Journal of Management Accounting Research*, pp. 3-62.

Smith, H. W. (1981). *Strategies of Social Research* Englewood Cliffs, NJ: Prentice-Hall.

Waterhouse J. H. and Tiessen, P. (1978). A Contingency Framework for Management Accounting Systems Research, *Accounting, Organizations and Society*, Vol. 3, No. 1, pp. 65-76.

Yin, R. K. (1994). *Case Study Research: Design and Methods*, Applied Social Research Method Series, Vol. 5, Second edition (SAGE Publication).

Young, M. (1999). Field Research Methods in Management Accounting, *Accounting Horizons*, Vo. 13, Issue 1, pp. 76-84.

Young, S. M. and Selto, F. H. (1993). Explaining Cross-Sectional Workgroup Performance Differences in a JIT Facility: A Critical Appraisal of a Field-Based Study, *Journal of Management Accounting Research*, Vol. 5, pp. 300-326.