

Validity and Reliability in Case Study Research in Accounting: A Review and Experience

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Abstract

Case study method has become popular in accounting research in recent times as evidenced by the increasing number of case-based research papers published in top-tier accounting journals. But, in general, they have disclosed very little information about the design of the study and the data collection and analysis methods actually followed by researchers. This paper aims to fill this gap by reviewing the existing literature related to validity and reliability issues in case study research in accounting while drawing on the systematic analytical protocol adopted in respect of two case studies conducted in Sri Lanka. Like in any other research method, the research design and data collection and analysis methods seem to be very important aspects in maintaining the validity and reliability of case studies. The review suggests that there are inherent limitations in case study research, particularly related to validity and reliability which are difficult to eliminate in full. However, minimizing the impact of such limitations on the validity and reliability of case studies seems to be possible by adopting certain strategies and tactics. In the sections that discuss the actual experience of conducting the two case studies in Sri Lanka, the specific nature of threats to validity and reliability of undertaking case study research and the strategies adopted to counter those threats were highlighted. Those who intend to conduct case study research could benefit from this paper as it provides some useful insights into the way in which case study research may be conducted in accounting that ensures validity and reliability.

Key words: Case study research; Validity; Reliability; Accounting; Sri Lanka

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1. Introduction

Case studies often figure prominently in qualitative research (Humphrey and Lee, 2004). Despite the fact that the use of case studies in accounting research has been the subject of considerable development and debate over the years (Otley and Berry, 1994; Berry and Otley, 2004) it has now become a popular strategy in accounting research (Adams, Hoque and McNicholas, 2006). In particular, an increasing number of case study based research papers have been published in top-tier journals in management accounting nowadays (e.g., Hoque and Hopper, 1994, 1997; Alam, 1997; Uddin and Hopper, 2001; Perera, McKinnon and Harrison, 2003; Wickramasinghe and Hopper, 2005; Alawattage and Wickramasinghe, 2008).

The purpose of this paper is to review the conduct of case study research in accounting to examine possible threats to validity and reliability¹ of such studies and to suggest strategies which may be employed to counter or minimize these threats. Regardless of whether a study adopts case study or any other research method, the quality of a research study depends largely on how it is designed. The research design consists of research method, data collection and analysis and reporting (Humphrey and Lee, 2004). A researcher can choose from a number of research methods, including case study, experiment, survey, archival study, field study and ethnography. Similarly, when analysing data, researchers have the choice of statistical testing or analysis using an

¹ Validity and reliability have been widely used as the criteria for determining the quality of qualitative research (Berry and Otley, 2004; McKinnon, 1988; Yin, 2003). Validity is concerned with the question of whether the researcher is studying the phenomenon she or he purports to be studying and reliability is concerned with the question of whether the researcher is obtaining data on which she or he can rely (McKinnon, 1988).

interpretational framework. Since the research design affects the validity and reliability of the study and the overall quality of the research, it is important that a researcher carefully designs the study prior to its commencement. This is particularly important for case studies because of the potential for the study to be influenced by various types of bias such as the researcher's bias in collecting and interpreting the data.

Following increasing popularity of case studies in accounting research, there have been a number of publications devoted to the discussion of various issues in undertaking case study research in accounting. For instance, some of the papers discuss different dimensions of case study research such as building theories from case study research (Eisenhardt, 1989), framing a research problem using case study method and benefits and disadvantages of this approach (Berry and Otley, 2004). Further, they address the issues of accessing into the field (McKinnon, 1988; Perera, 2005). Although access can often be an issue in most of the research methods gaining, maintaining and even limiting access tend to be issues that could particularly affect the success of the case study research method.

Furthermore, a number of papers describe the data collection methods in case study research. Case study method permits a wider and richer understanding of accounting practices by triangulating multiple sources of data such as participant observation, interviews, and documentary evidence (Adams *et al.*, 2006). Among these methods, interviews tend to be employed most frequently in accounting research (e.g., Marginson, 2004; Horton, Macve and Struyven, 2004). Finally, several papers discuss the techniques of analysis to be used in case study research method in order to identify key patterns, explain actions, events and reported opinions (O'Dwyer, 2004; Modell, 2005).

This paper takes a holistic view in discussing the appropriateness of case study as a research method in accounting, the methods available for data collection and analysis and reporting the case study results while addressing the validity and reliability ² issues at each stage of conducting case study research. For this purpose, the paper draws on the actual experience of research process in relation to two case studies conducted in Sri Lanka focusing on the procedures followed prior to, during and subsequent to the field visit to secure the validity and reliability of the study. The aim of these case studies was to examine how accounting contributes to the corporate governance of banks in Sri Lanka. This requires an in-depth analysis as there are no linear relationships between the phenomena. For instance, accounting can play a functional as well as a dysfunctional role in banks and may or may not facilitate corporate governance due to various contextual influences.

The paper is structured as follows: the next Section explains the rationale for using the case study method in accounting while Section three describes methods adopted in data collection. The Section that follows discusses the procedure adopted to organize the data for analysis. The penultimate Section highlights several common issues related to validity and reliability of case study research and the strategies that could be used to counter such issues. Some concluding remarks are given in the final Section.

² Two validity tests, namely construct and external validity and reliability tests have been given explicit attention in the study, as they appear to be the generally accepted criteria in social science research (For example, Yin, 2003; Lillis, 2006). Yin (2003) describes the construct validity as establishing correct operational measures for the concepts being studied, the external validity as establishing the domain to which a study's findings can be generalized and the reliability as demonstrating that the operations of a study such as whether the data collection procedures can be repeated with the same results.

2. Rationality for Adopting the Case Study Research Method in Accounting

The case study research method facilitates a holistic and meaningful examination of the phenomenon investigated (Adams, Hoque and McNicholas, 2006; Cooper and Morgan, 2008; Yin, 2003). Yin (2003) defines the case study research method as an inquiry that copes with a technically distinctive situation, in which there will be many more variables of interest than data points that relies on multiple sources of evidence, with data needing to converge in a triangulating fashion and that benefits from the prior development of theoretical propositions to guide data collection and analysis. The study phenomenon of the two case studies, namely, how accounting contributes to the corporate governance of banks, appears to be complex, as there are many other factors that influence the level of corporate governance of banks. With its ability to triangulate data from multiple sources, the case study research method is capable of capturing such a complex relationship in a real-life situation. Further, the analytical framework presented in Annex 1, which incorporates various contextual factors, provides the theoretical basis for data collection and analysis in the study.

The social science research tradition, including accounting research, employs a number of research methods, including case study, survey, and experiment. Each method follows a different approach for collecting and analysing data (e.g., the survey method collects data from cross-sectional surveys and statistical techniques are used to analyse the data) and has its own advantages (e.g., the survey method allows the gathering of data from a large population) and disadvantages (e.g., the survey method does not allow in-depth investigation of the phenomenon). For deciding a suitable method in social science research, Yin (2003) suggests three criteria namely, the type of research question posed, the extent of control an investigator has over actual behavioural events and the degree of focus on contemporary as opposed to historical events.

Based on the above criteria, case study research method is considered appropriate in answering 'how' and 'why' research questions to investigate the phenomenon under investigation and it does not require control over behavioural events (Cooper and Morgan, 2008; Yin, 2003). As stated above, the research question of the case studies is descriptive in nature and focuses on how accounting contributes to the corporate governance of banks in Sri Lanka. The case study research method is more suitable for this kind of study compared to, for example, the survey and the experiment methods. The survey method also satisfies the last two conditions but it is more suitably employed to predict certain outcomes and the research questions usually begin with 'who', 'what', 'where', 'how many' and 'how much'; the experiment method examines similar types of research questions such as 'how' and 'why' but it requires control over behavioural events.

The case study research method involves an in-depth investigation of the phenomenon within real-life situations (Adams *et al.*, 2006; Cooper and Morgan, 2008). For instance, it could be used in an interpretive fashion to provide wider and richer understanding of accounting practices in real organizational setups. It uses data collection techniques such as interviews which can generate rich data to describe, translate, analyse and infer the meanings of events or phenomena occurring in the organizational setup (Adams *et al.*, 2006; Cooper and Morgan, 2008; Horton *et al.*, 2004). The face-to-face interviews also provide the researcher with opportunities to study the body language of the participants and make a judgment on the reliability of information. Such an in-depth investigation could not be undertaken by other methods such as survey and experiment. For example, the survey method may not be appropriate to undertake an in-depth investigation from a large population, due to cost and time constraints of the researcher. Further, the experiment method requires an artificial environment and cannot be undertaken in an actual organizational setup.

It is also plausible that 'positive' or 'scientific' methods are inappropriate for an organizational study. The positivist approach to accounting research normally relies on an arms-length research method that statistically categorizes key variables and then attempts to retrieve meaning by ex-post facto interpretations of tests of significance (Tomkins and Groves, 1983). Accounting research using a positivist approach, therefore, fails to capture individual differences or variations in perceptions about the real-world practice, how accounting interacts with organizational effectiveness and adaptability and the importance of subjective and institutional factors in accounting practices (Adams *et al.*, 2006). By contrast, the case study method could be used in an interpretive fashion for wider and richer understanding of accounting practices in real organizational setup (Adams *et al.*, 2006).

The purpose of the case study research method is not to generalize the results to a large population. Case studies, like experiments, are generalizable to theoretical propositions (i.e., analytic generalization) rather than populations or universes (i.e., statistical generalization) (Yin, 2003). The purpose of the case study investigation is, therefore, to expand the theory and not to undertake statistical generalization (Burns, 2000). In the case studies that investigated how accounting contributes to the corporate governance of banks, the analytical framework provided the theoretical basis for data collection and analysis. Hence, the results of the study could be used to expand the theory proposed by the analytical framework, instead of generalizing them to a population.

The two case studies have been conducted in a descriptive manner,³ as it describes a phenomenon in its real-life context. Descriptive case studies in accounting research describe accounting systems, techniques and procedures

³ Yin (2003) classifies case studies into five types or applications, namely explanatory, descriptive, illustrative, exploratory, and meta-evaluation.

used in practice (Scapens, 2004). For instance, such studies can help in dealing with a detailed description of accounting control processes and explaining how the processes affect participants in practice. They can also help in making sense of a situation in its socio-political context; discovering how the experiences, words, feelings, attitudes and value judgments of the participants in an organization are implicated in the research question and capturing individual differences or variations in perceptions about real-world practice (Adams *et al.*, 2006).

The study used multiple-case studies. Two banks were selected as the case organizations, from the public and private sectors, to examine the role of accounting in corporate governance mechanisms. These are two 'successful' commercial banks in the public and the private sectors and the study attempts to identify the 'best' accounting practices in the corporate governance of banks in Sri Lanka. Descriptive case studies have been popular in determining the 'best' practice in terms of the most common practice adopted by organizations or the practice adopted by 'successful' organizations (Scapens, 2004). While accepting that there can be debate concerning what constitutes 'best' practice and 'successful' companies (Scapens, 2004), the selected organizations are leading banks from the public and the private sectors in terms of their effective accounting and corporate governance practices.

3. Methods Adopted in Data Collection

This section details the data collection procedure adopted in the two case organizations. More specifically, it describes how access to the case organizations was obtained, the procedures adopted to collect data from multiple sources and problems encountered and how they were overcome.

Approaching the Case Organizations

Gaining consent from organizations is a central problem in field-based research due to several reasons such as lack of interest of the organization in the research question, confidentiality and sensitivity of information and the background or style of the investigator (Perera, 2005). Access to case organizations, therefore, was properly planned. As an initial step, it is important to invest a considerable amount of time in order to learn the organization from other sources to obtain a general understanding about the organization (including the history, nature of its activities and external influences on the organization), to be able to speak the 'language' of the organization and to demonstrate to the organization that an effort had been made to understand its background (Perera, 2005). Hence, a background study was conducted to obtain a general understanding of the case organizations. Information was obtained mainly through the annual reports and banks' web sites.

Permission was granted by the case organizations with the condition that data collection to be limited to those that are non-confidential in nature. In order to minimize the impact of data accessibility limitations, the study has been carefully designed in such a way to maintain the validity and reliability of the study. McKinnon (1988) suggests several strategies to counter threats to the validity and reliability in the field research to deal with data access limitations such as the use of multiple methods and the researcher's social behavior while in the setting. These strategies have been used in the study as discussed in the following section.

Methods of Data Collection

The study used multiple data sources, including semi-structured interviews and documentary evidence.

Semi-Structured Interviews

Semi-structured interviews were the main method of data collection and also an important data source that was available to learn about the accounting practices in the case organizations. Interview technique is used to gather information in a situation where the phenomenon cannot be directly observed (Patton, 2002). The type of information sought in the study is related to personal experiences of accounting and corporate governance practices in the case organizations. Such information is connected to feelings, thoughts and intentions of the interviewees which are unobservable and interview technique remains as the only method to capture these features.

The design and development of the interview guides

The analytical framework developed to address the research question that reflects the theoretical priorities has been the basis for the development of interview guides. Three different interview guides were designed for accountants, board of directors and managers to match with the different levels of expertise in accounting and corporate governance issues of each category of interviewees.⁴

The interview guides were sent to case organizations well in advance of the interviews in response to their concern over the confidentiality of information. The availability of interview guides to the case organizations prior to commencement of the interviews was expected to have several advantages. In a situation, where they do not wish certain questions to be included in the interview guides, such questions could be amended or deleted from the final interview guides. It also eliminates possible misunderstandings of the managers of the case organizations towards the research project. When the case

⁴ However, some questions in the three interview guides were still repeated which could be commonly answered by all three categories.

organizations are aware that the research project does not have an impact on their competitiveness and the results could also be useful to them, they might show positive responses thereafter (Perera, 2005).

Selection of interviewees

Thirty semi-structured interviews were scheduled to be conducted during the field visits.⁵ All the interviewees hold senior management positions. The interview guide to Accountants was aimed at evaluating the accounting and corporate governance practices of the bank. Further, the interview guide to the board of directors was expected to assess the use of accounting information by the board of directors in corporate governance. Finally, the interview guide to managers was aimed at assessing the availability of accounting information for them and the extent to which they use such information for planning, control and decision making purposes. The information gathered through managers was also triangulated with the information received from the other two categories to improve the validity and reliability of the study (McKinnon, 1988).

Selection of the interviewees was planned through the assistance of the CEOs of the case organizations. The advantage of the recruitment of interviewees through the CEOs is that they tend to select more appropriate interviewees, as they are well aware of their organizations. However, there could also be a disadvantage in this method. The CEOs are able to select a biased sample that would have an impact on the validity and reliability of the study. In order to minimize the threats to validity and reliability on this issue, one of the tactics used in the study was asking probing questions during the interviews.

⁵ This included eight Accountants, three members of the Board and four Managers from each bank.

Further, efforts have been made to identify suitable interviewees through snow bowling (see Horton *et al.*, 2004). McKinnon (1988) distinguishes interviewees as informants and interviewees. The former provides general background data on the organization and the people in it and the latter provides more specific information about the phenomena of interest to the researcher. Informants have been used to identify the prospective interviewees during the field visits.

Scheduling of interviews

Interviews were pre-scheduled with the aim of utilizing the time effectively during the field visits. For instance, the cost of data collection could be reduced by this way (Ferreira and Merchant, 1992; Perera, 2005). Further, it also could ensure that a sufficient number of interviewees were selected for the interviews and thus the external validity and reliability of the study increased. Finally, it was planned at the beginning that the interview guides were sent to the interviewees via email before the actual interviews were held. By sending the interview guides in advance, interviewees were made aware of the questions that would be raised prior to the interviews and that also will have a number of advantages. It would be helpful for conducting productive interviews as the interviewees have more time to prepare for the interviews (Perera, 2005). It also could reasonably assure that more detailed and comprehensive answers are received most of the time (Perera, 2005). Lastly, it would assist to make use of snow bowling effect as the interviewees tend to introduce their colleagues who may have the experience and knowledge to answer some of the questions (McKinnon, 1988; Perera, 2005).

The process of interviewing

Every attempt has been made to productively utilize the interview time without inducing psychological stress in the participants. Managing time is a

crucial factor during the interviews (Ferreira and Merchant, 1992) as all the interviewees are subject to time pressures. The interviews lasted approximately forty to eighty minutes. In the first five to ten minutes, details were provided with regard to the investigator and the research project. For this purpose, interviewees were given a copy of the analytical framework and explained what type of information is sought at in the interviews. The investigator found this method to be useful as the interviewees were also provided with a copy of the interview guide at the time of fixing the interviews so that they have a reasonably clear idea of the research project before responding to the questions.

With the permission of the interviewees, interviews were audio recorded to transcribe and analyze later. Hayes and Mattimoe (2004) identify several determinants on a decision to tape or not to tape, namely, the nature of the research project, willingness of the interviewee to be taped, the interviewer's preference and competence with each technique and benefits and drawbacks of the techniques themselves. The study seeks descriptive information regarding accounting and corporate governance practices of case organizations and therefore, audio recording is more appropriate than manual note taking. It also avoids inaccuracies due to poor recall and poor or inaccurate articulation (Yin, 2003). Further, as all the interviewees had given their consent to audio record the interviews, a systematic analysis of audio recorded data was possible (Perera, 2005). Furthermore, the investigator had planned to audio record the interviews in all possible situations in order to productively utilize the available interview time. Finally, the audio records were found to be very useful later at the analysis stage as they had been transcribed and coded by using the NVivo software. In addition to audio recording, important information was recorded manually during or soon after each of the interview.

The interview guides were generally followed to ask questions from the interviewees subject to variations in certain situations. For instance, sometimes the interviewees not only answered the question raised but also responded to several other questions in the interview guide. In that type of a situation, the questions already answered by the interviewee have been ignored. Further, probing questions were used during the interviews. They allow the researcher to quiz the subject further about any unsolicited statements that were made or about a response to a specific question and assist the researcher to separate the factual (i.e., what the respondent has experienced or observed first hand) from presumed (i.e., what the respondent assumed happened based on hearsay and previous experience of similar instances) (McKinnon, 1988).

Documentary Evidence

The documentary evidence included a review of laws and regulations related to accounting and corporate governance in the banking industry in Sri Lanka, annual reports and publicly available documents of the case organizations and the banking industry including media coverage. This information was triangulated with the information gathered through the interviews. Further, it was useful in developing questions for the interview guides. Finally, as described earlier in this section, annual reports were useful in gaining background knowledge prior to approaching the case organizations.

4. Organized Data for Analysis

Like all other forms of data analysis, the analysis of qualitative data in case study research involves processes of reduction or summarization, classification and interpretation (Lillis, 1999). A useful systematic analytical protocol in this connection is Miles and Huberman (1994, p. 10), who suggested three sequential activities: data reduction, data display and conclusion drawing and verification.

The ways in which Miles and Huberman's (1994) analytical approach were used in the two case studies are summarized below.

Data reduction

The first activity is data reduction which is the process of selecting, focusing, simplifying, abstracting and transforming the data from interview transcripts and documentary evidence (see e.g., Miles and Huberman, 1994). This, in fact, occurred even before data collection. More specifically, only relevant data were gathered from the interviews, as per the relationships identified in the analytical framework developed in the study. That is, the interviews captured data only with regard to the actual roles of accounting in the corporate governance of banks, while drawing attention to the contextual influences. Further data reduction occurred in the actual data analysis in the following steps:

Step 1: Interview transcripts and relevant documents were coded using the qualitative analysis package, NVivo. For this purpose, interview transcripts and documents were first uploaded into NVivo, and then coded by associating the sentences in the transcripts/documents with one or more themes defined in a hierarchical coding structure. In this way, each text unit was identified as relating to one or more pre-determined thematic codes. No data reduction occurred at this stage. The aim was to classify all but the most superfluous data, relating the data to at least one thematic code (e.g., Lillis, 1999). The actual data reduction occurred in the sub-coding stage.

Step 2: The codes under 'role of accounting in corporate governance' were sub-coded into situations where accounting facilitated corporate governance (i.e., used situations) and where accounting did not play its potential role in corporate governance (i.e., conflicting situations). These situations

provided evidence on the extent to which accounting contributed to the corporate governance of the case organizations. At this stage of coding, data reduction occurred because only the relevant texts were coded. These sub-codes could be audited back to the transcript/document using the facility (link) given in NVivo. An audit trail from transcripts/documents to the results of analysis, through successive stages of data reduction and summarization enhances the reliability of the study (Lillis, 1999).

Step 3: Further, explanations were given by analysing and linking the codes under 'contextual influences' for each and every 'used' and 'conflicting' situation identified in the sub-coding. For this purpose, the memo facility in NVivo was used; each memo explained the extent to which the context facilitated/obstructed the role of accounting in corporate governance mechanisms in the case organizations. Hence, data interpretation occurred in this step. Furthermore, annotation facility in the NVivo was used to record statements of interviewees and documents as quotations in the report writing stage.

Data display

The second activity in data analysis is data display. Miles and Huberman (1994) describe display as an organized, compressed assembly of information that permits conclusion drawing and verification. A matrix was prepared to compare the potential and actual roles of accounting in each corporate governance mechanism. Whilst the analytical framework was the basis to identify the former, the coding system adopted in NVivo in the data reduction stage has been used to identify the latter. Summaries were written in separate matrix cells indicating 'how' accounting assisted in each corporate governance mechanism; and 'why' accounting did or did not facilitate corporate governance by specifically referring to the contextual influences. Since these matrices were

written in the investigator's own words, they reflect some data interpretation and reduction. Matrices were designed to assemble organized information into an immediately accessible, compact form so that the investigator could see what was happening and draw justified conclusions (see Miles and Huberman, 1994).

Conclusion drawing and verification

The last activity in data analysis is conclusion drawing and verification. As discussed under the previous activity, the matrices provided the basis for drawing conclusions on the extent to which accounting contributed to corporate governance mechanisms in each case organization, and to writing the case study reports. For this purpose, the actual roles of accounting were compared with the potential roles, and deviations were explained by referring to contextual influences. Further, the matrices prepared for each corporate governance mechanism for both case organizations were merged to undertake a comparative analysis and variations were explained with reference to the specific contextual factors related to each of the case organization.

5. Other Threats over Validity and Reliability

In addition to the issues that were discussed before at each stage of conducting the case study research, there are also some common problems regarding the validity and reliability in case study research (Berry and Otley, 2004). For example, operational measures may be difficult to pre-define than they develop out of the data that are being collected; external validity requires the use of some form of replication, most of the case study research in accounting tend to have a single case study; and finally, reliability may be difficult to achieve due to access constraints to the research site for consecutive times that may prevent repetition.

A common criticism of case study research method is that it provides little evidence for scientific generalization which could have affected the external validity (Burns, 2000). Yin (2003) suggests using theory in the research design phase to improve the external validity of the study. The two case studies discussed in this paper triangulate agency and stakeholder theories in the development of analytical framework. Further, selection of multiple cases facilitates the replication of results, hence, improve construct validity. Finally, Yin (2003) argues that case studies like experiments are generalizable to theoretical propositions (i.e., analytic generalization) rather than populations or universes (i.e., statistical generalization). The purpose of the case study investigation is, therefore, to expand the theory and not to undertake statistical generalization (Burns, 2000).

Further, the interpretation of the context could involve personal biasness of the investigator which influences the reliability of the case study research method (Adams *et al.*, 2006). A number of steps have been taken to address this issue in the two case studies conducted, for instance, interview guides have been prepared based on the analytical framework, which were critically reviewed by the research supervisors, university ethics committee and the officers of two case organizations prior to the conduct of interviews; proper case study notes have been maintained, for example, interview transcripts and documents, and individual transcripts have been sent to the officers of respective banks for their review and acceptance before completion of case study reports.

Finally, a frequent complaint of the case study research method is that it generally takes long period to complete and results in massive unreadable documents (Burns, 2000; Yin, 2003). Several strategies have been followed to manage this situation in the two case studies conducted. The analytical framework, consists of clearly defined roles of accounting in corporate

governance mechanisms, provides the basis for data collection and analysis, and therefore, improves the research objectivity. Further, a proper recording system and a systematic analysis have been implemented to handle the data. A proper note taking facilitates as a means through which the research may be managed and allows control over threats to validity and reliability of the study (McKinnon, 1988).

6. Concluding Remarks

Case study research method has become a common research strategy in social sciences and also has gained popularity in accounting research over the years due to its ability to examine the phenomenon under real life situation. Using case studies for research purposes remains a challengeable task in every stage of the research, namely prior to, during, and subsequent to the field visit. The issues related to validity and reliability at each of these stages of conducting case study research cannot be avoided and failure to address these issues in the conduct of the study prejudices attainment of the purpose and the quality of the study.

There have been a number of publications that address various issues in undertaking case study research in accounting. But, in general, they disclose little detail about the design of the study, and the data collection and analysis methods actually followed by researchers. However, the research design and data collection and analysis methods seem to be very important aspects of maintaining the validity and reliability of case studies. This paper aimed to fulfil this gap by reviewing the existing literature related to case study research method in accounting, while illustrating the systematic analytical protocol adopted during the two case studies conducted in Sri Lanka.

The paper highlights that there are certain inherent limitations in case study research, especially validity and reliability concerns which are difficult to eliminate in full. These threats to validity and reliability can sometimes be expected owing to the weaknesses of the case study research method (e.g., difficulty in managing massive amount of data) and other times are situation specific (e.g., facilities and support to undertake case study research as well as organizational and individual responses to research). However, a researcher can adopt certain strategies and tactics that are available to minimize the impact of such situations on validity and reliability and acknowledge their implications for the findings of the study. By that way, still there is a high likelihood of achieving relatively good quality outcome from the case-based research.

The paper has both theoretical and practical implications. It provides some useful insights into the way in which case study research may be conducted in accounting securing validity and reliability. It may also be a useful reference for researchers, in general, who wish to become familiar with the case study research method.

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**ANNEX 1: ANALYTICAL FRAMEWORK EMPLOYED
IN THE TWO CASE STUDIES**

