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A MIXED METHODS APPROACH TO ACCOUNTING RESEARCH: SHARING PRACTICAL INSIGHTS

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Abstract

Mixed Methods (MM) studies are rich in providing a comprehensive understanding of complex research problems by combining qualitative and quantitative approaches. This methodology paper aims to share the author's experience in applying a mixed methods convergent design to examine the expectation gap in non-financial reporting assurance in Sri Lanka. The paper discusses the rationale for choosing MM, the data collection and analysis process, and the specific steps taken to integrate quantitative and qualitative data. The study adopted a pragmatist philosophical foundation by emphasizing the need for practical problem-solving and flexibility in methods. Qualitative data were gathered through semi-structured interviews using purposive sampling. Quantitative data were collected via structured questionnaires using random sampling techniques. Separate but parallel analyses of quantitative and qualitative data were performed before the integration. Integration was planned and done very carefully to mitigate the validity and reliability issues of the study. Hence, this paper shares the challenges and practical experiences encountered during the design, data collection, data analysis, and integration stages by providing methodological insights for researchers who aim to employ MM in accounting research. Overall, the paper highlights the importance of methods triangulation in enhancing the validity and reliability of a study, while it guides managing the complexities of data integration in MM research.

Keywords: Mixed Methods, Integration, Accounting Research, Validity, Reliability

1. Introduction

Recognition for Mixed Methods (MM) research has increased rapidly in recent years due to its ability to provide a more comprehensive understanding of complex research problems (Adu et al., 2022). MM research allows researchers to leverage the strengths of each method and overcome their respective limitations by combining qualitative and quantitative

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approaches (Venkatesh et al., 2013). This approach has been widely adopted in various fields, particularly in the disciplines of health and social sciences. Accounting researchers constantly seek to unravel the complexities of financial and managerial phenomena. Its application in accounting research presents a valuable opportunity to gain deeper insights into the intricacies of accounting phenomena (Lamprecht & Guetterman, 2019). Therefore, the application of MM research has emerged as a powerful approach, allowing researchers to capture the nuances and interconnections that often elude single-method investigations.

The existence of research papers that provide practical guidance for those who wish to apply MM in real-world research is essential at this stage. However, despite the wider adoption of MM in accounting literature, many published studies offer limited methodological detail (Lamprecht & Guetterman, 2019). In addition, only a few methodological papers focus on researchers' actual experiences of applying MM in accounting (Creswell & Plano Clark, 2018; Creswell & Poth, 2017; Teddlie & Tashakkori, 2009). Instead, discussions are often limited to theoretical accounts or methodological guides (Creswell, 2014; Greene, 2007). Furthermore, although integration of quantitative and qualitative data is a defining feature of MM research, many studies provide insufficient detail on how integration is undertaken in practice (Hands, 2022).

Therefore, this paper aims to make a methodological contribution by reporting the experience of designing and conducting MM research using a convergent design[2] in accounting. It explains the rationale for selecting this design, the procedures used for qualitative and quantitative data collection and analysis, and the approach adopted for integrating both datasets. The discussion is based on a study conducted in 2023, examining the expectation gap in non-financial reporting (NFR) assurance in Sri Lanka. The methodological rigor, particularly in addressing the challenges of converging datasets and ensuring the reliability and validity of the integrated findings, is also discussed. It is intended to support accounting researchers using a convergent mixed MM design by highlighting practical considerations, including managing multiple data sources and handling integration challenges that are often underreported in the literature.

[2] To develop a typology of core designs that is both economical and useful to help researchers comprehend the main design alternatives available, Creswell and Plano presented a new classification for MM core designs in 2018.

The remainder of the paper is structured as follows. The next section explains the philosophical foundation of the study. The rationale for using the MM convergent design is explained before the section on data collection. The section that follows data analysis in the study is designed to explain the validity and reliability considerations of the study. Concluding remarks are given in the last section after explaining the ethical considerations of the study.

2. Philosophical Foundation

This study is grounded in pragmatism (Maarouf, 2019). Pragmatism, as explained by Creswell (2014), understands knowledge through actions, situations, and their consequences rather than fixed antecedent conditions. It gives priority to the research problem itself and accepts the use of different methods when they help address that problem (Rossman et al., 1985).

In line with this position, the methodological decisions in this study were guided by the nature of the research problem rather than by a single ontological or epistemological stance. The investigation of the expectation gap in NFR assurance in Sri Lanka required the use of both quantitative and qualitative approaches within one study, as neither approach alone was sufficient to capture the complexity of stakeholder perceptions and practices surrounding the issue.

In practical terms, pragmatism guided the use of a convergent mixed methods design. Quantitative and qualitative data were collected separately but with a common focus on the expectation gap in NFR assurance. This allowed both strands to examine the same issue from different angles. The expectation gap was understood as a context-specific and complex issue that could not be captured from a single source. For this reason, data were gathered from different stakeholder groups using different methods.

At the data collection stage, pragmatism supported the use of questionnaires to capture wider stakeholder views and interviews to explore in more detail the meanings and experiences behind those views. The choice of methods was guided by what each method could contribute to understanding the research problem, rather than by preference for one method over another.

During analysis, pragmatism supported the separate examination of the quantitative and qualitative datasets, with each dataset analysed on its own terms before being brought together in the integration stage. The survey data were analysed first to identify overall patterns in expectations gap of NFR assurance. The interview data were then analysed to capture detailed explanations behind those patterns and to reflect participants' experiences and views. Each dataset was coded and interpreted on its own, without mixing the two during the initial stage. Only after completing both analyses were the results compared to identify areas of agreement, difference, and complementarity relevant to the expectation gap in NFR assurance.

Finally, during integration, the findings from both strands were compared to see where they aligned, differed, or complemented each other. This comparison helped to explain the expectation gap in NFR assurance more clearly and showed how different stakeholder views related to audit expectations and stakeholder theory in the context of non-financial assurance.

3. Rationale for the Selection of Research Design

According to Creswell (2014), qualitative, quantitative, and MM are the three main types of research designs. This paper describes the research design of the investigator's MSc study, which aims to explore the expectation gap in non-financial reporting assurance in Sri Lanka. Accordingly, MM design was used in this study. The conventional understanding of quantitative and qualitative approaches as wholly distinct and conflicting methodologies has changed over time (Maarouf, 2019). They are no longer viewed as two opposing approaches, but rather as complementary ones, each having special advantages that can be combined to produce a more thorough comprehension of research issues. Both approaches are seen as two extremes on a scale, and a study can lean more towards one or the other. The ability to provide a complete understanding of the research problem by mixing quantitative and qualitative methods rather than using only one type of method is the main assumption of the mixed research approach (Creswell, 2014; Creswell & Plano, 2018). Triangulation is one of the main advantages of the MM approach. Triangulation allows the researcher to enhance and bolster the findings of the study by employing different methods for gathering and analyzing data to study the same subject, to obtain a comprehensive understanding of the subject. According to Molina-Azorin (2016), triangulation is also used to confirm the

findings obtained using another method. This study used the MM approach with the purpose of triangulation of methods of data collection and methods of data analysis to obtain more complete and corroborated results. Further, by addressing the generalizability limitation of a qualitative study, the researcher aimed to increase the generalizability of the findings of the study.

By addressing the issue of using different terminologies in classifications of the main types of MM designs, Creswell & Plano (2018) introduced three core MM designs, namely explanatory sequential designs, exploratory sequential designs, and convergent designs. According to this classification, this study was conducted based on an MM convergent design. Expanding on this viewpoint, the researcher concurrently collected and examined quantitative and qualitative data sets. A more thorough analysis of the results was made possible by the integration of the two datasets following the completion of the individual analyses. "Diagrams of Designs" also known as "Procedural Diagrams" represent the procedures of mixed method research. These diagrams were introduced by Steckler et al. (1992). Drawing and presenting a procedural diagram is also recommended by Creswell and Plano (2018) due to the complexity of MM. Figure 1 shows the procedural diagram developed for this study.

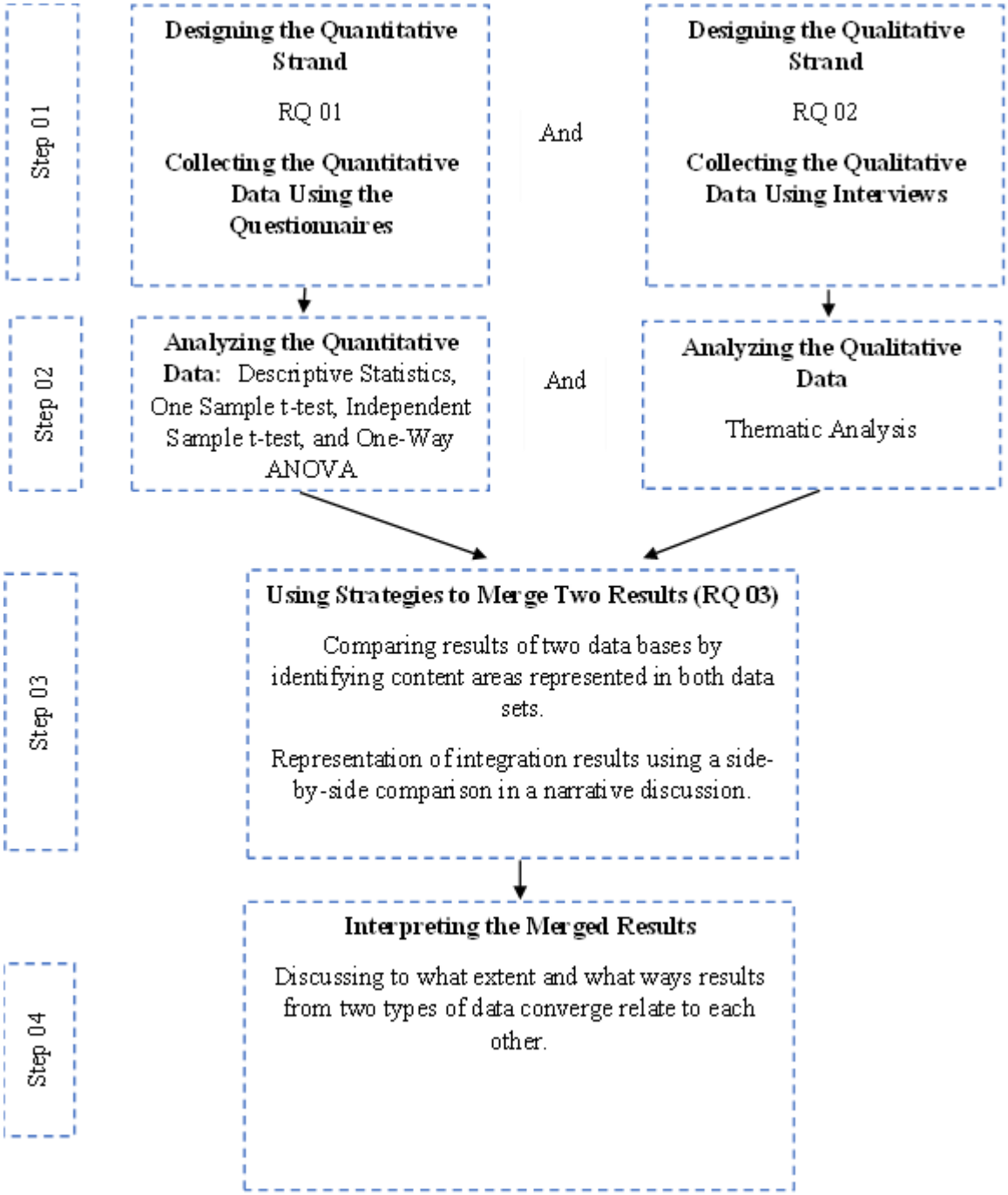


Figure 1: Procedural Diagram of the Study

According to the diagram, the quantitative and qualitative strands of the study were designed separately at the beginning of the study. Table 1 shows research questions developed for each type of data.

Table 1: Research Questions, Type of Data, and their Analysis Methods

	RQ	Data	Data Analysis Method
RQ1	What are the gaps in knowledge, performance, and evolution in assurance of NFR in Sri Lanka?	**Quantitative**	Descriptive Statistics, Frequency Analysis, One sample t-test, independent sample t-test, One way ANOVA with post hoc analysis
RQ2	How do the assurance providers, reporters, and users in Sri Lanka describe and explain their experiences with and perceptions of knowledge, performance, and evolution in NFR assurance?	**Qualitative**	Thematic Analysis (Coding, Categorization, Interpretation)
RQ3	What are the consistencies and discrepancies between the quantified gaps and the qualitative insights regarding knowledge, performance, and evolution in NFR assurance in Sri Lanka?	**Integration of Qualitative and Quantitative**	Comparison of quantitative and qualitative results

Source: Developed by the Researcher

Research questions of the study are developed to represent the nature of MM studies. According to Creswell and Plano (2018), all three kinds of questions namely, quantitative, qualitative, and mixed method questions should be included in a MM study. Further, Creswell and Plano (2018) suggested stating mixed method questions explicitly in the report is better even though many researchers do not explicitly state them in articles and reports. Accordingly, this study consists of quantitative, qualitative, and MM of questions. Further, the mixed method question/ RQ3 is explicitly stated rather than making it implicit within

the integration analysis. The upcoming section provides a detailed explanation of the methods and procedures used for data collection and analysis.

4. Data Collection

In a convergent design study, key decisions include selecting participants for the samples, determining the sample sizes, designing the questions for data collection, and organizing the order and format of different data collection methods.

This study's population includes all assurance providers, reporters, and users of NFR in Sri Lanka. As the starting point, two samples of varying sizes were chosen for this study to gather quantitative and qualitative data independently. By following this approach, the researcher sought to gain a detailed qualitative understanding from a small group of participants while also conducting a robust quantitative analysis of the expectation gap. The difference in sample sizes does not pose an issue as long as the goal of integrating the two databases is to either compare findings by topic or to merge them for a more comprehensive understanding of the phenomenon (Creswell & Plano, 2018). Thus, utilizing two different samples did not limit the study, as the purpose of merging the databases was to compare findings by topics[3] and integrate them to provide a more comprehensive understanding of the expectation gap in NFR assurance.

Purposive sampling was used to select the respondents for collecting qualitative data. Purposive sampling allows the researcher to select participants intentionally (Creswell & Plano, 2018). Thus, the researcher could select participants who have experience with the main concept being examined in the study. The sample size for the qualitative phase was not predetermined. Instead, data collection continued until thematic saturation was achieved. Saturation was assessed throughout the interview process by continuously reviewing and comparing emerging themes across interviews. By the fourteenth interview, no new themes, perspectives, or substantive insights were identified, and the data obtained were considered sufficient to provide an in-depth understanding of the expectation gap in NFR assurance. Therefore, the researcher concluded data collection at this point. This

[3] Knowledge gap, performance gap, and evolution gap were used as main topics in the comparison. These are the main components of the Audit Expectation Gap model introduced by ACCA (2019) which was the basis of the theoretical framework of this study

sample size is comparable to those used in previous studies on sustainability assurance. For example, Frost and Martinov-Bennie (2010) conducted 13 interviews as part of their research on sustainability reporting assurance, focusing on market trends and the perspectives of both users and providers. Similarly, Owen et al. (2009) conducted 18 interviews, including 13 face-to-face interviews and 5 telephone interviews, with corporate responsibility managers and senior stakeholder representatives to examine key issues in sustainability assurance. The selection criteria for each category of respondents are presented in Table 2.

Table 2: Criteria for Selecting Respondents for Qualitative Data

Respondents' Group	**Selection Criteria**
Assurance Providers	The respondent should hold a managerial level or above position (To ensure that the respondent's answers best represent the organizational practices) in an institution (accounting or non-accounting firm) that assures non-financial information. Further, the respondents should have experience in assuring non-financial information.
Reporters	The respondent should hold a managerial level or above position (To ensure that the respondent's answers best represent the organizational practices) in the section that prepares and maintains non-financial information of an institution. The institution should get external assurance over their reported non-financial information.
Users	The respondents should be familiar with NFR assurance in Sri Lanka and should be using non-financial information in their decision-making (Investors, Financial Analysts, Social Representatives, Academic Researchers, Legal Professionals, Environmental Advocates, Undergraduates, Lenders, Suppliers)

Source: Developed by the Researcher

The quantitative data for this study were collected from 35 assurance providers, 55 reporters, and 230 users. Respondents were selected based on their familiarity with NFR assurance

because the study aimed to examine the expectation gap relating to NFR assurance. Therefore, participants were required to have sufficient knowledge of NFR assurance and related practices to provide informed responses. In Sri Lanka, the number of organisations providing NFR assurance services and the number of companies engaged in NFR are relatively limited. As a result, although the number of assurance providers and reporters included in the study is small, they represent a large proportion of the relevant population. The response rates for assurance providers, reporters, and users were 74%, 72%, and 59%, respectively. The selection criteria for each category of respondents are presented in Table 3. These criteria were further verified through the demographic section of the questionnaire.

Table 3: Criteria for Selecting Respondents for Quantitative Data

Respondents' Group	**Selection Criteria**
Assurance Providers	The respondent should be a member of an institution (accounting or non-accounting firm) that provides NFR assurance. (Partners and staff members who are involved in assuring non-financial information)
Reporters	The respondent should represent an organization that is involved in NFR. (Staff members who are involved in reporting non-financial information of companies or any organization)
Users	The respondents should be familiar with NFR assurance in Sri Lanka (Investors, Financial Analysts, Social Representatives, Academic Researchers, Legal Professionals, Environmental Advocates, Undergraduates, Lenders, and Suppliers).

Source: Developed by the Researcher

Selecting data sources is another major decision in MM studies. There are two different options for deciding the data sources. First, the researcher can decide to collect both types of data using the same form. Secondly, the researcher can select two different forms for collecting two types of data. According to Creswell & Plano (2018), the first option restricts the quality and scope of one or both datasets, especially regarding qualitative information. Therefore, the researcher collected qualitative and quantitative data using two different forms in parallel. Qualitative data for the study were mainly collected using semi-structured interviews using the interview guide. Semi-structured interviews use a mix of both closed

and open-ended questions, and follow-up through why or how questions (Adams, 2015). Therefore, the main reason to collect data using the semi-structured interview format is that the interview method is most suitable for studying a phenomenon in-depth (Creswell & Plano, 2018; Mori Junior, 2014). According to ACCA (2019), the audit expectation gap consists of knowledge gap, performance gap, and evolution gap. Accordingly, there were three themes in the interview guide, namely knowledge gap, performance gap, and evolution gap. Topics relating to these three themes were brought up in all the interviews. Cronbach (1946) suggested using structured questionnaires in surveys as a way to minimize response bias. Accordingly, quantitative data for the study were collected using a questionnaire that includes two parts for collecting demographic information and research information separately. Three questionnaires were developed separately for each category of assurance providers, reporters, and users of non-financial information due to the different nature of questions of the demographic information part. All three questionnaires had the same statements in the research information part to ensure comparability of the responses. Major themes used in the developing interview guide (knowledge gap, performance gap, and evolution gap) were the main variables covered by the statements of the questionnaires. Addressing the same topics in designing the interview guide and questionnaires ensures the comparability of findings at the integration stage. To enhance the response rate, all questionnaires were administered through Google Forms., and each type of questionnaire was distributed separately to avoid complexities in identifying the relevant questionnaire to a particular respondent.

5. Data Analysis

Data analysis of MM research consists of both quantitative and qualitative data analytic techniques as well as the integration of the two forms of data (Creswell & Plano, 2018). Accordingly, the data analysis was carried out to address and answer research questions using both qualitative and quantitative information collected through questionnaires and interviews. The researcher first analyzed quantitative and qualitative data separately and then merged the two databases. Table 1 shows the methods of data analysis used for each research question of this study. The data analysis was performed while ensuring the anonymity of the participants.

Collected quantitative data were imported into the "IBM SPSS Statistics 20" to perform the data analysis. Descriptive statistics were performed to analyze the demographic information of respondents. A comparison between public perceptions and requirements of assurance standards (ISAE 3000 (Revised), and AA 1000) was performed to identify the gaps in knowledge, performance, and evolution in NFR assurance in Sri Lanka. This study considered the presence of knowledge/performance/evolution gaps using two criteria: the mean value of 2.9 or less and 50% or more of the stakeholders' groups agreed (the total number that strongly agreed and agreed) on each statement (Kumari & Ajward, 2023; Mori Junior, 2014). Further, one sample t-test was performed for each statement to assess the significance of the difference between the test value of 2.9 and the mean values to draw more accurate conclusions. One Way ANOVA test with post hoc analysis was used to assess the differences among the stakeholder groups on each statement.

As mentioned in the data collection section, qualitative data were collected using interviews. All the interviews were conducted by the researcher herself to ensure the accuracy and reliability of the data. Before analyzing qualitative data obtained through the interviews, all the participants were coded based on their category of assurers, reporters, and users. All the interviews were transcribed to Microsoft Word documents using the VEED website. The VEED enables the researcher to replay the entire interview or specific segments multiple times, ensuring accurate data collection through its subtitle feature, which also allows for editing. Additionally, NVivo 12 Pro was utilized to support qualitative data analysis and presentation. The generic strategy was the analysis strategy used in this study. More specifically, thematic analysis was used as the strategy of qualitative analysis. Accordingly, assigning labels to data or coding was done to represent the aspects of data and to capture the features of data. The two main areas considered in the coding stage were the ability to answer research questions and protect the true meaning of data. According to ACCA (2019), the audit expectation gap consists of knowledge, performance, and evolution gap. These concepts were used to develop anchor codes, and by considering the epistemological nature of the second research question, initial and descriptive types of coding which come under the category of elemental methods of coding were mainly used in the first cycle of coding (Saldaña, 2013). After the first cycle of coding, sorting was done based on the underlying meaning across codes. Pattern coding was used in the second cycle coding since the coding was based on the underlying meaning of the first cycle code.

Figure 2 shows the integration procedures followed by this study. Creswell and Plano (2018) argued that integration differs depending on the MM design type. Accordingly, the integration process was carefully planned and executed by considering several key aspects. These included the overall purpose and objective of the integration, the specific procedures used to analyze the integrated data, the method of presenting the integration results, and the approach taken to interpret those results effectively.

Step	Procedure
Step 1	**Separate Analysis** Conduct separate quantitative and qualitative analyses for each research question
Step 2	**Identify Common Constructs** Search for common concepts across quantitative and qualitative results
Step 3	**Compare Results** Compare quantitative and qualitative results across shared concepts
Step 4	**Determine Integration Outcomes** Determine which results converge, diverge, or expand understanding
Step 5	**Integrate and Present** Organize integrated findings and present them in a narrative discussion
Step 6	**Interpret Integrated Results** Interpret integrated results to generate insights and address the mixed-methods research question

Figure 2: Procedural Diagram of the Integration

The design of the study was a convergent design explained in the previous section. Thus, integration in this study aims to produce results and interpretations that enhance understanding and are thorough. There are two methods to integrate the results of MM

studies. The first approach to integration involves comparing the results from each method, while the alternative approach involves transforming one data set into the other type and conducting further analysis. By considering the integration intent, the researcher integrated the results of quantitative and qualitative data by comparing the separate results of the two databases without transforming data into the other type. This includes the stages of obtaining results of quantitative and qualitative analysis separately, identifying and separating common concepts across the results of two (Creswell & Plano, 2018). More specifically, integration analysis procedures involve identifying shared concepts within the results, comparing quantitative and qualitative findings for each concept, assessing how the results align, contradict, or complement one another, and interpreting and addressing any discrepancies. In a convergent design study, the integration results can be represented using two methods (Creswell and Plano, 2018). The side-by-side comparison in a narrative discussion is the first method, and using a joint display is the second method. Representing integration results using a side-by-side comparison in a narrative discussion is the method used in this study. According to Creswell and Plano (2018), this narrative discussion kind of representation may also appear in the discussion section. Therefore, the discussion section can also be used as the vehicle for merging the results. Knowledge, performance, and evolution gaps are common concepts identified in both quantitative and qualitative results. Accordingly, the findings of integration were presented under each discussion section of the knowledge gap, performance gap, and evolution gap.

6. Validity and Quality Assurance Procedures

Validity in MM research refers to the strategies used to reduce potential threats to the accuracy and credibility of inferences drawn from the integration of qualitative and quantitative evidence (Creswell & Plano Clark, 2018). Accordingly, validity in this study was established primarily through design-level procedures that support the logic of MM inquiry (Perez, 2019).

First, a convergent MM design was adopted, allowing for the parallel collection and analysis of qualitative and quantitative data. This design choice was made to enable direct comparison and integration of findings at the interpretation stage, thereby strengthening integrative efficacy and reducing the risk of fragmented inference (Creswell & Plano Clark, 2018).

Second, integration was embedded throughout the research process rather than being treated as a final-stage activity. This approach responds to concerns in MM research that the absence of parallel constructs across qualitative and quantitative strands may pose a threat to validity. Accordingly, the research questions, interview guide, and questionnaire were developed around shared conceptual gaps identified in the literature. The first and second research questions, addressing quantitative and qualitative strands respectively, were aligned to the same core concepts. Similarly, both data collection instruments were constructed using shared constructs, namely the knowledge gap, performance gap, and evolution gap, to ensure conceptual consistency across strands. This design choice aligns with guidance that integration should be maintained across design, data collection, and interpretation phases to strengthen validity in MM studies (McChesney & Aldridge, 2019).

Third, triangulation was used as a central mechanism for strengthening inferential validity. In MM research, triangulation does not merely refer to corroboration of findings, but to the deliberate comparison of different forms of evidence to identify convergence, divergence, and complementarity (Denzin, 1970). In this study, triangulation was operationalized through the use of multiple data sources and methodological forms, enabling a more nuanced interpretation of NFR assurance practices. This contributed particularly to strengthening interpretive depth and reducing single-method bias.

Fourth, paradigmatic mixing legitimation was addressed through the adoption of a pragmatic research stance. This allowed the quantitative and qualitative strands to retain their methodological distinctiveness while remaining conceptually integrated. Rather than treating the underlying assumptions of the two approaches as incompatible, the study viewed them as complementary sources of evidence that contribute to a broader understanding of the research problem. Meta-inferences were developed through the explicit integration of findings from both strands, with particular attention given to how each informed the interpretation of the knowledge gap, performance gap, and evolution gap that collectively constitute the expectation gap in NFR assurance. Making these assumptions explicit and integrating findings systematically strengthened the validity of the study (Onwuegbuzie & Johnson, 2006).

Finally, Creswell and Plano Clark (2018) identify keeping qualitative and quantitative results separate during interpretation as a mixed-method-specific threat to validity. To

address this threat, the findings from both strands were compared and integrated through a side-by-side narrative discussion, enabling conclusions to be drawn from the combined evidence rather than from each strand independently.

While the validity of the study primarily depended on the effective integration of qualitative and quantitative evidence, additional procedures were undertaken to ensure the quality of each individual strand. In the qualitative component, pilot interviews were conducted with representatives from each respondent category to refine the interview questions and improve clarity and relevance (Bloor & Wood, 2008). Dependability of the research process was ensured through a structured interview protocol and consistent procedures applied across all interviews (Hunter, 2012). Additionally, the researcher maintained neutrality during data collection by avoiding the expression of personal views or interpretations in interviews. However, the credibility of the findings was strengthened through ongoing clarification during interviews, where key points were summarised and checked with participants for accuracy. To reduce response bias, confidentiality was ensured in line with Evan and Miller (1969). Participants were informed before each interview that their names and organisational affiliations would not be disclosed, which also encouraged more open responses and reduced socially desirable reporting. All interviews were audio recorded with consent and transcribed verbatim to ensure accuracy and completeness of the data (Barriball & While, 1994). Transferability of the findings was supported by providing detailed descriptions of participants' roles and organisational contexts in the study report, allowing readers to judge relevance to other settings. Finally, confirmability of the findings was ensured through an audit trail consisting of raw data, interview transcripts, and coding records, enabling a clear link between the findings and the original data.

In the quantitative component, the questionnaire was developed based on literature and subjected to expert review by academics and practitioners with expertise in accounting, auditing, and NFR assurance. The instrument was subsequently pilot tested to assess question clarity, response options, survey length, and administrative feasibility (Bee & Murdoch-Eaton, 2016). Revisions were made based on feedback received during this process. Furthermore, anonymous administration through Google Forms and confidential distribution procedures were adopted to reduce response bias and encourage candid responses (Bee & Murdoch-Eaton 2016; Evans & Miller, 1969; Yun & Trumbo, 2000).

7. Ethical Considerations

The whole study was carried out by giving high priority to ethical considerations. Obtaining consent to participate in the study from all participants was major among all other considerations. The purpose of the research, the types of data being collected, and how it will be used were explained before starting data collection of each qualitative and quantitative type of data. The interviewer explained all these points before starting to ask interview questions during the qualitative data collection phase. A cover letter was attached to all questionnaires to inform all these aspects in the quantitative data collection phase. Further, obtaining permission to record interviews is also another consideration. More importantly, the researcher ensured the confidentiality and anonymity of the participants while conducting and writing the report. As a result, even though people of all genders were interviewed, all of the respondents were referred to as "he" in the report. Further, only occupational status, work experience/ familiarity with NFR and assurance, and type of organization were the only attributes used to explain participants of the qualitative data collection.

8. Concluding Remarks

The results of the quantitative and qualitative analyses converged significantly in identifying the existence of a knowledge gap, performance gap, and evolution gap. This convergence enhances the credibility of the findings. Further, qualitative results found new aspects which were not identified by the quantitative analysis. In addition to the existence of knowledge, performance, and evolution gaps, qualitative analysis highlighted the reasons and solutions for each component of the expectation gap in NFR assurance in Sri Lanka. Accordingly, qualitative findings expanded the understanding of the knowledge, performance, and evolution gap in NFR in Sri Lanka. With the qualitative findings, the researcher was able to provide a complete picture of the expectation gap in NFR assurance in Sri Lanka. Therefore, the researcher believes that the study leveraged the strengths of both qualitative and quantitative methods, providing a comprehensive view of the problem and overcoming the limitations associated with using a single method. The convergent design proved particularly effective in this study, allowing for the parallel collection and analysis of two distinct datasets and their subsequent integration.

However, the study encountered some challenges in the process of data integration. Ensuring the compatibility of qualitative and quantitative data is one of the primary difficulties in MM research. Therefore, the researcher carefully planned the integration phase to ensure that the datasets could be merged in a meaningful way, focusing on common concepts such as the knowledge, performance, and evolution gaps in NFR assurance. This was also a major area in designing the questionnaires and interview guide. Further, the researcher gathered relevant information by using purposive sampling for qualitative data and random sampling for quantitative data while ensuring that the datasets were comparable for integration. The use of thematic analysis for qualitative data and statistical analysis for quantitative data provided complementary perspectives, but careful attention was needed to maintain the validity of the integrated findings. In MM research, it is common to collect qualitative data from a smaller, more focused sample and quantitative data from a larger population. Therefore, the sample size difference between the qualitative and quantitative phases is another challenge faced by MM researchers. However, the sample size difference was not a limitation of the study, since the intent of the study was to synthesize the two datasets to produce a complementary picture of the expectation gap in NFR assurance in Sri Lanka.

In terms of practical implications, this paper offers valuable insights to researchers who are interested in applying the MM approach in accounting research. The paper highlights the importance of clear planning and methodological rigor, particularly in the integration phase, to ensure that the findings from different methods can be synthesized effectively. Moreover, the paper emphasizes the need for flexibility in research design, particularly when addressing complex, real-world problems like the assurance of NFR. In conclusion, this study demonstrates that MM research can provide rich, comprehensive insights that are often missed by single-method approaches. However, it should be designed and applied thoughtfully from the beginning to the end of the study. Accordingly, the study was able to offer a deeper insight into the expectation gap in NFR assurance in Sri Lanka by integrating qualitative and quantitative data. Future research can build on these findings by exploring other areas of accounting where MM research can be applied, further advancing the field's methodological diversity.

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