

## Mixed Methods in Accounting Research: The Rationale and Research Designs

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DOI: <https://doi.org/10.46431/MEJAST.2023.6107>

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Article Received: 10 January 2023

Article Accepted: 23 February 2023

Article Published: 11 March 2023

### ABSTRACT

Mixed methods research is a wide field of study, and this paper laid the stage for integrating the enormous array of literature on mixed methods research. It examined what mixed methods research is, and the related strengths it has for accounting research. The article is written in the style of a literature review. It identifies and investigates essential definitions, possibilities, and risks in mixed methods studies by conducting extensive review on mixed methods research in a variety of social science fields. This allows the researcher to examine differences in how mixed methods research is conceptualized across different studies, and also assess the perceived benefits and limitations of specific mixed methods design choices. To this end, the researcher identifies a wide range of possibilities and challenges in conducting of mixed-methods research and demonstrates them with references to both published works as well as additional contributions to this special issue. Except for the use of mixed-method research in finance, there is a sparse discussion of the application and potential of mixed methods research in the existent accounting literature.

**Keywords:** Mixed research method; Risks; Benefits; Accounting.

### 1. Introduction

Mixed-methods research has a long history in the social sciences (Meister, 2018). Mixed-methods studies and methodological articles examining the characteristics of this research technique are common in the management literature (Harrison, Reilly & Creswell, 2020). Despite the development of mixed methods research designs in the social sciences over several decades and the recent growth in mixed methods research popularity as a third methodology or third paradigm, there is little evidence or sustained discussion of mixed methods research in the accounting literature (Guetterman, et al., 2019). An example of this is in the area of managerial accountancy where qualitative approaches are widely accepted. Several appeals in the literature recognize the potential of case-based research to supplement positivist paradigms. Consequently, literature on mixed methods research from other social sciences is reviewed in this study. A range of concepts, possibilities, and risks linked with mixed methods research in accounting and management accounting are also considered (Brierley, 2017).

According to Timans, Wouters, & Heilbron, (2019), the term mixed methods research has come to refer to research strategies that combine qualitative and quantitative approaches in a single study. This method is also known as convergent methodology, multiple/multi-method/multi-trait research, convergent validation, between/across method triangulation, multiple operationalism, blended research, integrative research, and mixed research. In-depth research has been done on the nature of mixed methods research, how it may both expand and improve prospective results, and the dangers of integrating techniques (Ajayi, Adeniyi, & Akpan, 2018).

Bazeley, (2017) also examined a special issue on mixed methods covering a wide range of literature on what defines mixed methods. It also discusses the advantages and disadvantages of this strategy. Three published management accounting studies and one financial accounting study are used to demonstrate the use of mixed techniques in this article. The study supports earlier published studies in terms of what they teach us about the merits of mixed-method designs and the tensions and trade-offs in implementation. Other papers in this special

issue that consider mixed approaches design applications have similar themes of relative strengths, conflicts, and trade-offs (Flick, 2018).

Mixing methods is now generally acknowledged throughout social scientific fields as a unique research strategy with its worldview, language, and procedures (Clark, 2019). There is substantial diversity in the concept of mixed methods research, as demonstrated by the replies of 19 field leaders sought by (Johnson, et al., 2017). However, the majority of definitions and popular beliefs in the field imply that mixed methods designs have both a quantitative and qualitative component. The relationship between quantitative and qualitative components, and whether these components represent quantitative and qualitative data collection and processing procedures (methods) or quantitative and qualitative research approaches, appears to be the source of inconsistencies and disagreements (Bryman, 2017).

Furthermore, there are disagreements about how much emphasis should be placed on quantitative and qualitative research components, (Bryman, 2017) (the weighting decision) and when quantitative and qualitative study components should be blended (the mixing decision) (the timing decision). Although defining mixed methods research remains difficult, (Johnson et al., 2017) argue that this is unsurprising given that definitions can and often do change over time as a method evolves. However, the lack of precision in the definition is not fatal because it enables new understandings to be formed and is intellectually helpful.

## 2. Mixing Methodologies

The literature on mixed methods reveals that there are two main viewpoints on the mixing of methodologies (Schoonenboom & Johnson, 2017). The incompatibility theory and the pragmatists' viewpoint are two examples. According to those who hold an incompatibility view, combining qualitative and quantitative techniques is impossible since they are based on distinct epistemological principles and have different research cultures (Fàbregues, et al, 2021). Qualitative research technique, according to this argument, relies on inductive logic of inquiry, whereas quantitative research methodology relies on hypothetic-deductive logic (Bazeley, 2017).

These two perspectives speak to different ways of comprehending reality, which has various implications for formulating research questions and necessitating different research methodologies, implying that combining them would cause conflict and make it difficult to interpret results (Zabala, et al., 2018). Hypothetic-deductive logic, for example, necessitates more defined procedures, representativeness of the sample, and, consequently, a much larger sample size for generalizing the conclusions. Large representative samples are not required for inductive logic. These two distinct approaches to research methodology are incompatible and should not be used in any mixed-methods study (Bazeley, 2017).

Grafton, Lillis, & Mahama, (2011) indicates that others believe that combining methods can lead to argumentative incoherence by mixing paradigms with divergent epistemic and ontological underpinnings, extending the incompatibility perspective. They claim that combining qualitative and quantitative techniques is impossible because they are based on conflicting paradigmatic assumptions. Qualitative approaches are said to be developed from interpretivist and constructivism, in which reality is assumed to not exist prior to the investigation and the focus is on shared understandings instead of causal linkages (Antwi & Hamza, 2015).

On the other hand, quantitative methodologies are founded on positivism and assume an objective reality that can be investigated without the influence of researchers (Park, Konge & Artino, 2021). As a result of these divergent paradigmatic assumptions, (Alharahsheh, 2020) suggests that qualitative and quantitative approaches are not studying the same phenomena and should not be combined in any way. They go on to say that even if the same thing is investigated using both techniques, the definitions of the phenomena and the methodology to knowing the phenomena will differ, making it impossible to combine the two methods.

To counter the incompatibility theory, pragmatists believe that blending techniques in mixed-methods research make sense (Johnson, et al., 2017). Plagiarism attacks the incompatibility thesis by stressing discrepancies between qualitative and quantitative approaches rather than looking for areas of convergence. It's impossible to isolate techniques from the wider study process, say the pragmatists, because of this. The research questions being investigated affect the research techniques and design greatly, and the research questions themselves are derived from the study goal itself. Because research is based on epistemological and methodological assumptions, it makes sense that a useful mixed-methods study would include both qualitative and quantitative research methodologies (Baškarada & Koronios, 2018).

### 3. Mixed Methods

Mixed methods research is especially beneficial for deciphering discrepancies between quantitative and qualitative findings. Reflects the viewpoints of the participants (Ivankova & Wingo, 2018). Mixed methods research gives study participants a voice and ensures that study conclusions are based on their own experiences. Encourages scholarly collaboration (Gegenfurtner, et al., 2020).

### 4. Risks in Using Mixed Methods

We demonstrate how mixed research approaches can be useful in studying the complexities and interactions inherent in IS phenomena using lessons learned from a mixed-methods research project, which is especially important when investigating relatively new and messy phenomena with many opportunities for errors and omissions (Eady, et al., 2020). Mixed-methods research designs can also be useful in exploratory or new areas of research because they provide empirical evidence from multiple sources and data types that can be truly triangulated. We discuss the risks of employing a specific mixed-methods research strategy embedded mixed-methods design in this paper, as well as the practical solutions we used to address them (Yu & Khazanchi, 2017). This discussion provides operational guidance to researchers who wish to study emergent IS phenomena using mixed research designs (Reen, 2018).

### 5. Published Examples of Mixed Method Research in the Accounting Literature

This part shows how mixed techniques are utilized in accounting research. However, it does not look at mixed-methods accounting studies in depth (Lamprecht & Guetterman, 2019). For starters, the wide range of words that may be used to describe techniques in research makes it impossible to conduct an accurate and complete search. Such a search might include a variety of approaches, such as quantitative method experiments combined with phrases like qualitative accounting research or its subfields (Bromwich, & Scapens, 2016). Such searches generate tens of thousands of results. All research that employs both quantitative and qualitative data, such as

extended replies in surveys and manipulation check questionnaires in experiments, are at the very least included. On the contrary, searching for accounting and mixed techniques or numerous methods gives practically no results. We opted against doing a thorough search and instead utilized examples from the literature to show how mixed techniques are typically employed in accounting (Tucker & Hoque, 2017). The combination of surveys and interviews appears to constitute the great majority of mixed methods cases.

## 6. Literature Review

This section outline a summary findings of research done by Davila and Foster (2007). The evaluated study looked at how management control systems have evolved in early-stage startups. Publicly available data, surveys, and semi-structured interviews are used by the writers. To verify survey results, researchers may use publicly accessible information, such as three or more sources of data, financial and funding information, (Abdalla, et al., 2018). The continuous evolution of management control systems is documented using survey data. To better understand why systems were implemented, semi-structured interviews are utilized to clarify and triangulate survey results. They can also give a deeper description of the context. According to Abdalla, et al., (2018), mixed data sources may therefore be defined as tools for triangulating common components (convergence) while also discovering complementary elements (extension).

Beattie, (2005) did a seminal article in the field of financial accounting. This article employs a survey as well as interviews with chief financial officers to discover the elements that influence reported earnings and disclosure decisions. The study aims to make sense of the plethora of archival and analytical studies in the financial accounting literature that addresses these issues. While the study does not go so far as to use archival data alongside survey and interview data, it does so well to integrate the findings with existing research that uses archival data and analytical methods that it can almost be considered a triangulation of survey, interview, and archival data sources. The goal of this study's survey and interview design is to get a broad and deep understanding of the decisions that underpin archival evidence of earnings management and disclosure choices.

Financial accountants on the other hand, benefit from common archive data sources that use consistent criteria that are mostly independent of the researchers themselves (Flick, 2018). . As a result, it is easier for survey and interview data to communicate with these solid data sources. The fact that this study is in the financial accounting sub-discipline makes it particularly noteworthy as a mixed-methods contribution. Financial accounting has done minimal qualitative research, therefore it may be lagging behind management accounting in terms of developing and accepting mixed methodologies research strategies. Graham et al., (2005) do, however, demonstrate very well how much is to be gained by supplementing traditional archival data sources with forays into both surveys and qualitative data collection in financial accounting.

## 7. Conclusion

This paper's modest goal was to survey the literature on mixed methods research to provide some context relevant to application of mixed methods. The researcher took a broad view of mixed methods research, noting two distinguishing characteristics of this type of research: (1) the importance of carefully integrating the quantitative and qualitative elements of the mixed strategy within (2) a single program of study, which was consistent with the

majority of available literature. The mixed research methods definition also takes into account the possibility of combining approaches in this research plan. While there are a variety of advantages to doing mixed methods research, achieving these goals requires careful planning, execution, and communication of studies to avoid a variety of possible risks. The findings highlight the benefits and drawbacks of combining research methods.

To exemplify the topics provided, this research analyzed specific papers previously published in the accounting literature. A lack of instances of mixed methods studies in the accounting sector was discovered throughout the literature search. Furthermore, the few examples that do exist are generally limited to the use of survey and interview data in conjunction. While many studies claim to use a mixed or multiple methods approach, closer inspection reveals that these studies lack the integration of methodologies and the integrity of a single program of inquiry that are trademarks of mixed methods research. Instead, these studies are examples of what are known as rudimentary kinds of mixed methods research, which are generally parenthetical and even patronizing in their use of qualitative data to buttress statistical results.

In the accounting literature, mixed methods research strategies offer a lot of potential, according to the paper. Given the well-known advantages of mixed methods designs in terms of strengthening both theory testing and theory building through findings extension, convergence, and contradiction, their lack of use indicates missed opportunities. There could be several reasons for the underuse of mixed methods research. Tucker & Hoque, (2017) also mention the problem of satisfying the needs of reviewers with varying quantitative and qualitative preferences. When researchers seek to combine approaches, these effects are likely to be worsened. When one factor in the extra time and cost of study design and execution, a mixed-method approach becomes an especially risky research strategy.

#### **Declarations**

#### **Source of Funding**

This research did not receive any grant from funding agencies in the public, commercial, or not-for-profit sectors.

#### **Competing Interests Statement**

The authors declare no competing financial, professional, or personal interests.

#### **Consent for publication**

The authors declare that they consented to the publication of this research work.

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