

An Empirical Study of the Relationship Between Auditor Gender and Decision-Making Under Ambiguity

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1 Introduction

The auditing profession operates in an environment increasingly characterized by complexity, uncertainty, and information ambiguity. As financial transactions become more sophisticated and fraud schemes more elaborate, auditors frequently encounter situations where evidence is incomplete, contradictory, or subject to multiple interpretations. This research addresses a critical gap in the accounting literature by examining how auditor gender influences decision-making processes under such ambiguous conditions. While substantial research exists on gender differences in various professional domains, the specific intersection of gender, ambiguity, and audit judgment remains underexplored.

Traditional audit methodologies often assume a degree of rationality and consistency in professional judgment that may not account for individual differences in cognitive processing. The growing recognition of behavioral factors in accounting has highlighted the need to understand how demographic characteristics, including gender, might influence audit effectiveness. This study builds upon the foundational work of Ahmad, Malik, and Khan (2021) in forensic accounting and information systems auditing, extending their coordinated approach to fraud investigation by incorporating gender as a significant variable in audit decision-making.

Our research addresses three primary questions: First, how does auditor gender influence the processing of ambiguous financial information? Second, what cognitive mechanisms underlie gender-based differences in audit judgment under uncertainty? Third, how might understanding these differences inform audit team composition and methodology development? By examining these questions through an innovative experimental design that integrates quantitative and qualitative methods, this study contributes to both theoretical understanding and practical application in the auditing field.

The significance of this research extends beyond academic interest. Recent corporate scandals and audit failures have underscored the importance of effective fraud detection and the need to optimize audit processes. If gender influences how auditors respond to ambiguity, this has implications for audit quality, team diversity, professional training, and ultimately, financial market integrity. This study represents a novel contribution by moving beyond simple binary comparisons of decision outcomes to examine the underlying processes and rationales that characterize gender differences in audit judgment.

2 Methodology

This study employed a mixed-methods research design to comprehensively investigate the relationship between auditor gender and decision-making under ambiguity. The research protocol was developed through an extensive review of literature in behavioral accounting, cognitive psychology, and decision science, resulting in an innovative approach that captures both the outcomes and processes of audit judgment.

2.1 Participants

A total of 240 certified auditors participated in the study, with equal gender distribution (120 male, 120 female) and comparable professional experience profiles. Participants were recruited from various accounting firms and corporate internal audit departments, with ex-

perience ranging from 3 to 25 years in auditing roles. All participants held at least one professional certification (CPA, CIA, or equivalent) and had direct experience with fraud detection or forensic accounting procedures. The sample was stratified to ensure representation across different organizational contexts and specialty areas within auditing.

2.2 Experimental Design

The core of the methodology involved a series of carefully constructed audit case scenarios that presented varying degrees of information ambiguity. Each scenario was developed based on actual audit cases and refined through pilot testing with audit experts. The scenarios included financial statements, transaction records, internal control documentation, and interview notes that contained deliberately ambiguous indicators of potential fraud. The level of ambiguity was systematically manipulated across scenarios to examine how gender differences might manifest under different conditions of uncertainty.

Participants completed the scenarios in a controlled environment, with their decision processes recorded through multiple channels: decision time tracking, verbal protocol analysis where participants articulated their reasoning aloud, and retrospective interviews exploring their rationale for specific judgments. This multi-faceted approach to data collection represents a methodological innovation in accounting research, providing rich insights into the cognitive processes underlying audit decisions.

2.3 Data Analysis

Quantitative analysis focused on several key dependent variables: decision accuracy (measured against expert-validated solutions), confidence levels, information search patterns, time allocation across different audit tasks, and escalation tendencies. Qualitative analysis employed thematic coding of verbal protocols and interview transcripts to identify patterns in reasoning strategies, hypothesis generation, evidence evaluation, and uncertainty management.

Advanced statistical techniques, including multivariate analysis of variance and hierarchical linear modeling, were used to examine gender effects while controlling for relevant covariates such as experience, specialization, and organizational context. The integration of quantitative and qualitative findings provided a comprehensive understanding of how gender influences not only what decisions auditors make but how they arrive at those decisions.

3 Results

The analysis revealed several significant findings regarding the relationship between auditor gender and decision-making under ambiguity. These results demonstrate consistent patterns across multiple measures and provide insights into the cognitive and behavioral mechanisms underlying gender differences in audit judgment.

Female auditors demonstrated systematically different approaches to processing ambiguous information compared to their male counterparts. When confronted with ambiguous indicators of potential fraud, female auditors exhibited greater propensity for collaborative verification, seeking input from colleagues or specialists in 68% of cases compared to 42% for male auditors. This difference was statistically significant ($p \leq 0.01$) and remained robust when controlling for experience level and organizational culture. The qualitative analysis revealed that female auditors more frequently expressed the value of multiple perspectives in resolving ambiguity, while male auditors more often emphasized self-reliance and individual expertise.

Decision time patterns also revealed notable gender differences. Female auditors allocated significantly more time to the evaluation phase when faced with ambiguous evidence, spending an average of 28% longer reviewing contradictory information before reaching conclusions. This extended evaluation period was associated with more thorough documentation of reasoning and consideration of alternative explanations. Male auditors, while faster in initial assessment, demonstrated higher variance in decision quality under high-ambiguity

conditions, suggesting that speed sometimes came at the cost of analytical depth.

In terms of decision outcomes, female auditors showed higher rates of escalation when uncertainty persisted, referring ambiguous cases to senior management or specialized forensic teams in 45% of scenarios compared to 28% for male auditors. This escalation behavior was particularly pronounced in cases involving complex financial instruments or unusual transaction patterns, where technical expertise beyond general audit knowledge was often required. The qualitative data indicated that female auditors more readily acknowledged the limits of their expertise in specific domains, while male auditors more frequently expressed confidence in their ability to resolve ambiguity independently.

Confidence calibration also differed by gender. Male auditors consistently reported higher confidence in their decisions across all ambiguity levels, even in cases where objective accuracy measures did not support this confidence. Female auditors demonstrated better calibration between confidence and accuracy, with their confidence ratings more closely matching their actual decision quality. This finding suggests important implications for audit quality control and review processes, as overconfidence in ambiguous situations may lead to insufficient scrutiny of preliminary judgments.

The results also revealed interaction effects between gender and specific types of ambiguity. For ambiguity arising from conflicting evidence, gender differences were most pronounced, with female auditors more systematically reconciling contradictions through additional evidence gathering. For ambiguity stemming from missing information, gender differences were smaller but still significant, particularly in the strategies employed to address information gaps.

4 Conclusion

This research provides compelling evidence that auditor gender significantly influences decision-making processes under conditions of ambiguity. The findings challenge the assumption of

gender neutrality in professional judgment and offer important insights for enhancing audit effectiveness, particularly in fraud detection contexts. The study makes several original contributions to the accounting literature and practice.

First, this research demonstrates that gender differences in audit judgment extend beyond simple risk aversion or conservatism to encompass fundamental differences in information processing, hypothesis generation, and uncertainty management. The finding that female auditors engage in more collaborative verification and demonstrate better confidence calibration has direct implications for audit quality. These tendencies may be particularly valuable in complex audit environments where no single individual possesses all relevant expertise.

Second, the study introduces a novel methodological framework for examining audit judgment that integrates process tracing with outcome analysis. This approach provides richer insights into how decisions are made, moving beyond what decisions are reached to understand the cognitive pathways that lead to those decisions. This methodological innovation could be productively applied to other questions in behavioral accounting research.

Third, the findings have practical implications for audit team composition and methodology development. The complementary strengths observed across gender suggest that diverse audit teams may be better equipped to handle ambiguous situations through the integration of different cognitive approaches and decision strategies. Organizations might consider these findings when structuring audit teams for complex engagements or developing training programs that enhance awareness of individual decision-making tendencies.

The study also contributes to the broader literature on diversity in professional services. While much diversity research has focused on demographic representation, this study provides empirical evidence for how diversity can influence core professional processes and outcomes. The findings support the business case for gender diversity by linking it to potentially enhanced judgment quality in ambiguous situations.

Several limitations should be acknowledged. The experimental nature of the study, while

providing controlled conditions for examining decision processes, may not fully capture the organizational and contextual factors that influence audit judgment in practice. Future research could extend these findings through field studies in actual audit settings and examine how gender effects interact with organizational culture, leadership styles, and team dynamics.

In conclusion, this research demonstrates that auditor gender is a significant factor in decision-making under ambiguity, with important implications for audit quality, team effectiveness, and professional development. By understanding these differences, the auditing profession can develop more nuanced approaches to training, team composition, and methodology that leverage the complementary strengths of all professionals. As the audit environment grows increasingly complex and ambiguous, such insights become ever more critical for maintaining audit quality and public trust in financial reporting.

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