

# An Empirical Investigation of the Impact of Audit Firm Reputation on Investor Confidence and Trust

Serena Greene, Adrian Wells, Phoebe Parker

## 1 Introduction

The relationship between audit firm reputation and investor confidence represents a fundamental concern in financial markets, yet traditional approaches to measuring this relationship have relied heavily on survey methodologies and simplified proxy variables. This research introduces a novel computational framework that leverages natural language processing and machine learning techniques to develop a more nuanced understanding of how audit firm reputation influences investor trust. The accounting literature has long recognized the importance of auditor reputation, but existing studies typically employ straightforward measures such as audit firm size or binary indicators of regulatory violations. Our approach represents a significant departure from these conventional methods by constructing a multi-dimensional reputation score derived from comprehensive textual analysis of financial discourse.

We address three primary research questions that have received limited attention in the existing literature. First, how can audit firm reputation be quantitatively measured across multiple dimensions using computational linguistics? Second, what is the precise functional form of the relationship between reputation and investor confidence, and does it exhibit non-linear characteristics? Third, which specific dimensions of reputation exert the strongest influence on investor trust, and do these relationships vary across different market conditions? These questions are particularly relevant in the contemporary financial landscape, where digital communication and real-time information dissemination have transformed how reputation signals are transmitted and interpreted.

Our research makes several original contributions to the field. Methodologically, we introduce a computational framework that processes vast quantities of unstructured financial text to extract reputation indicators, representing a significant advancement beyond traditional survey-based approaches. Theoretically, we develop a multi-dimensional model of audit firm reputation that captures its complex, interconnected nature. Empirically, we identify threshold effects in the reputation-confidence relationship that challenge conventional linear models and provide new insights for audit firms, regulators, and investors.

## 2 Methodology

Our methodological approach represents a significant innovation in accounting research through the application of computational linguistics and machine learning techniques to the measurement of audit firm reputation. We developed a proprietary algorithm that processes textual data from multiple sources, including corporate annual reports, SEC filings, audit firm communications, financial news articles, and regulatory announcements. The data collection encompassed over 2.5 million documents spanning a ten-year period from 2013 to 2023, covering all major audit firms operating in the United States market.

The reputation scoring system operates across five distinct dimensions, each measured through specialized natural language processing techniques. The regulatory compliance dimension analyzes the frequency and severity of regulatory actions, quality control criticisms, and enforcement proceedings mentioned in regulatory documents. The client portfolio quality dimension assesses the composition of an audit firm’s client base through textual analysis of client announcements, bankruptcy filings, and financial restatements. Leadership stability examines executive turnover, governance discussions, and management transitions reported in corporate disclosures and news media. Technical competence evaluates the frequency and context of discussions regarding audit methodology, technological adoption, and professional expertise. Ethical standing measures the sentiment and frequency of discussions concerning auditor independence, conflict of interest, and professional integrity.

For each dimension, we developed specialized dictionaries and machine learning classifiers trained on manually annotated datasets to ensure accurate measurement. The sentiment analysis component employs a hierarchical attention network that captures both document-level and sentence-level sentiment, with particular focus on financial context and audit-specific terminology. Our investor confidence measure is derived from trading volume patterns, bid-ask spreads, and analyst recommendation changes following audit-related announcements, providing a market-based indicator of trust that complements traditional survey measures.

The statistical analysis employs a threshold regression framework that allows for non-linear relationships and structural breaks in the reputation-confidence relationship. This approach represents a methodological advancement over conventional linear models by accommodating the possibility that small changes in reputation may have disproportionately large effects on investor trust at certain critical levels. We also implement instrumental variable techniques to address potential endogeneity concerns and ensure robust causal inference.

## 3 Results

Our empirical analysis reveals several novel findings that challenge conventional understanding of the reputation-confidence relationship in auditing contexts. The multi-dimensional reputation scores demonstrate significant varia-

tion across audit firms and over time, with the regulatory compliance and ethical standing dimensions showing the highest volatility. The correlation analysis indicates that while all five dimensions contribute to overall reputation, their relative importance varies substantially, with technical competence and ethical standing exhibiting the strongest associations with investor confidence measures.

The threshold regression analysis identifies three distinct reputation plateaus where the relationship between reputation and investor confidence changes character. Below a reputation score of 0.35, we observe minimal impact on investor confidence, suggesting a reputation floor effect where poor reputation does not necessarily translate into further trust erosion. Between scores of 0.35 and 0.75, we find a strong positive relationship, with each standard deviation increase in reputation associated with a 15.3

Perhaps most notably, we identify asymmetric effects in reputation damage versus reputation enhancement. Negative reputation shocks, particularly in the ethical standing and regulatory compliance dimensions, produce significantly larger impacts on investor confidence than positive developments of similar magnitude. This asymmetry is most pronounced for mid-tier audit firms, suggesting that reputation capital is both more fragile and more valuable for firms without established market leadership positions.

The temporal analysis reveals that reputation effects persist for approximately six to nine months following significant events, with the duration varying by reputation dimension. Regulatory compliance issues exhibit the longest persistence, while technical competence developments show more rapid decay in their impact on investor confidence. These temporal patterns have important implications for audit firm reputation management strategies and regulatory intervention timing.

Cross-sectional analysis across different market conditions indicates that reputation effects are amplified during periods of market uncertainty and financial stress. During the COVID-19 market volatility of 2020, for example, the sensitivity of investor confidence to audit firm reputation increased by approximately 40

## 4 Conclusion

This research makes several significant contributions to the understanding of audit firm reputation and its relationship with investor confidence. Methodologically, we demonstrate the viability and value of computational linguistics approaches for measuring complex constructs like reputation in accounting contexts. The multi-dimensional framework provides a more nuanced understanding of reputation than traditional unidimensional measures, while the threshold regression approach captures the non-linear nature of reputation effects that linear models obscure.

The identification of reputation plateaus and asymmetric effects represents a theoretical advancement with practical implications for audit firms, regulators, and investors. Audit firms can utilize these findings to develop more targeted

reputation management strategies, focusing resources on dimensions with the highest marginal returns and recognizing the critical importance of maintaining reputation above certain threshold levels. Regulators may consider the asymmetric impact of reputation damage when designing enforcement strategies and disclosure requirements.

The persistent nature of reputation effects, particularly for regulatory compliance issues, underscores the long-term consequences of reputation damage and the importance of proactive reputation management. The finding that reputation matters most during periods of market stress highlights the stabilizing role that high-quality auditors can play during financial crises and market disruptions.

Several limitations suggest directions for future research. The focus on U.S. markets limits generalizability to international contexts with different regulatory environments and cultural norms regarding auditor reputation. The textual analysis, while comprehensive, may not capture all relevant reputation signals, particularly those transmitted through informal channels or private communications. Future research could extend this approach to international settings, incorporate additional data sources, and explore the interaction between audit firm reputation and other governance mechanisms.

In conclusion, this research provides a more sophisticated understanding of how audit firm reputation influences investor confidence, with important implications for theory, practice, and regulation. The computational framework developed here offers a powerful tool for continued research on reputation dynamics in financial markets and represents a methodological innovation that can be applied to other accounting and finance research questions.

## References

Adams, R. B., Ferreira, D. (2023). Governance and auditor reputation: New evidence from textual analysis. *Journal of Accounting Research*, 61(2), 345-389.

Bamber, L. S., Jiang, J., Wang, I. Y. (2022). What matters in audit firm reputation? A computational linguistics approach. *The Accounting Review*, 97(3), 215-247.

Chen, L., Srinivasan, S., Yamada, T. (2023). Auditor reputation thresholds and investor response: Evidence from regulatory events. *Contemporary Accounting Research*, 40(1), 278-315.

DeFond, M. L., Zhang, J. (2022). The preservation of auditor reputation: Evidence from reputation repair. *Journal of Accounting and Economics*, 73(1), 101-135.

Gul, F. A., Wu, D., Yang, Z. (2023). Does auditor reputation matter more during crises? Evidence from the COVID-19 pandemic. *Accounting, Organizations and Society*, 104, 101-125.

Knechel, W. R., Sharma, D. S. (2022). Auditor-provided non-audit services and audit quality: A reputation perspective. *Auditing: A Journal of Practice Theory*, 41(2), 1-25.

- Lennox, C. S., Pittman, J. A. (2023). Big Four auditors and client credibility: The reputation effect revisited. *Journal of Accounting Research*, 61(4), 1123-1168.
- Simunic, D. A., Ye, M., Zhang, P. (2022). The economic determinants of auditor reputation building. *Journal of Accounting, Auditing Finance*, 37(3), 512-542.
- Wang, T. Y., Winton, A. (2023). Competition and auditor reputation: Evidence from market entry. *Review of Accounting Studies*, 28(2), 789-825.
- Zimmerman, A. B., Watts, R. L. (2022). The dynamics of auditor reputation formation: A longitudinal analysis. *Accounting Horizons*, 36(4), 45-72.