

Big Data As Complementary Audit Evidence

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Changes in audit environments

- Auditors use wider variety of information
- High litigation risks
- Advanced technologies
- Big data and big data analytics are likely to improve the predictive power of data analysis.
- Then, what about auditors?



Audit evidence (SAS No. 106)

AuditEvidence = Sufficiency + Appropriateness = Sufficiency + (Reliability + Relevance)

Sufficiency consideration

1. Relevant external big data could be a complement for a client's internal information that is not readily available to auditors.

- 2. Big data can offer support when traditional audit evidence is deficient.
- 3. The primary cost is data processing efforts.

Reliability consideration

- 1. In some cases big data can provide tamper-resistant data source for verification.
- 2. Big data from external sources can offer independent benchmarks to assess both internal and external trends of financial accounts.
- 3. Data quality issue (i.e. noise)

Critical Challenges

- Integration with traditional audit evidence
- summarization, evaluation, and weighing of big data
- Ownership of big data

• Information privacy



Conclusion and Future Research Direction

• Yours!



Thank you!