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!