Big Data in Accounting: An Overview

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The Meaning of Big Data

- Differs across various domains
- Determined by whether the data pushes the limit of capabilities of information systems that work with this data
- 4 V's: huge Volume, high Velocity, huge Variety, and uncertain Veracity
- Size of Storage
- Processing

Accounting and Big Data

- Big Data has the potential to cause a paradigm shift allowing economic activities to be traced and measured earlier and deeper.

- Automatic capture of data through sensors, RFID, GPS data streams.

- Semi-structured and non-structured data stores complementing the current structured data stores of ERPs.

Non-traditional Big Data

- Addition of new types of data fields within specific accounting transaction records beyond what was traditionally recorded.

- Extractions from video data can serve to support marketing and identify bottlenecks in the supply chain.

- Textual data streams from social media can support marketing, give an early warning to customer service of product flaws, and serve to predict volume of sales.

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Practical Applications of Big Data

- Process and analyze detailed rather than summary transaction data.

- Integrate into analysis a variety of both internal and external data with financial data.

- Do "soft integration" of environmental Big Data (e.g. social networks and news pieces) with accounting measurement and audit assurance processes.

- Transform accounting, business, and audit processes based on the above.

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