Data Analytics Working Group Update

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Agenda Item 3-A
Audit Data Analytics Agenda

- Current Landscape
- What Is It?
- Audit Data Analytics and the ISAs
- The Key Areas
- Benefits to Audit Quality
- Challenges to Adoption and Implementation
- Working Group Planned Outreach
- Concluding Thought
Data Analytics

Audit Data Analytics – Current Landscape

• Data is an ever increasing aspect of today’s world
• Audit Data Analytics is a topic of great interest to many, including:
  – Audit Standard Setters – Practitioners
  – Academia – Regulators
  – Companies
• Technology in the audit to date – incremental changes versus audit transformation
Audit Data Analytics – What Is It?

“Audit Data Analytics (ADA) is the science and art of discovering and analyzing patterns, identifying anomalies, and extracting other useful information in the data underlying or related to the subject matter of an audit through analysis, modeling and visualization for the purpose of planning or performing the audit.”

AICPA White Paper – Reimagining Auditing in a Wired World (August 2014)
External audits being performed in the digital age

• Different views on whether ISAs are fit for Audit Data Analytics:
  – Are ISAs prohibitive?
  – Are they agnostic?

• And should they:
  – Be more encouraging – perhaps through guidance?
  – Require use of Audit Data Analytics in the audit?
Data Analytics

Audit Data Analytics and the ISAs – Possible ISAs Impacted

ISA 230
ISA 500
ISA 240
ISA 560
ISA 530
ISA 510
ISA 505
ISA 260
ISA 315
ISA 265
ISA 330
ISA 300
ISA 620
ISA 540
ISA 501
Data Analytics

Audit Data Analytics – The Key Areas

• Auditing Standards
  – Analytical and risk assessment procedures standards
  – Defining what constitutes audit evidence (electronic audit evidence)
  – Quantifying audit evidence: whole populations versus sampling
  – Data validation (completeness and accuracy)
  – Controls over information technology (e.g., change management, managing access processes)
  – Documentation requirements
  – Controls testing – nature and relevance
Audit Data Analytics – The Key Areas (continued)

- Audit Data Standards
- Data Access / Capture
  - Access to company’s data (data security)
- Data Analysis
  - Visual exploratory techniques (e.g., Scatterplots, heatmaps, relationship maps)
  - Confirmatory (mathematical and analytical) techniques (e.g., regression analysis, extraction and summarization of data)
Audit Data Analytics – Benefits to Audit Quality

**Improved coverage**
- Analyzing larger populations
- More focused selection for testing

**Enhanced Risk Focus and Insight**
- Enabling top-down, risk based approach
- Better understanding of entity and its environment leading to enhanced risk assessment

**Support professional skepticism**
- Assess management’s representations by analysis of financial transactions
- Opportunities for more fraud detection techniques?
Audit Data Analytics – Challenges to Adoption and Implementation

- Data Capture
- Audit Evidence
- Auditor Experience
- Managing Information Volume
- Ability to Scale
Working Group Planned Outreach

- Audit Firms – understand methodology developed
- National Standard Setters
- IFAC Member Bodies and Other Professional Organizations
- Academia, including Rutgers Business School – Continuous Auditing and Reporting Lab
- Financial reporting systems: ERP vendors and Audit and Risk Management Software vendors
Working Group Planned Outreach (continued)

- Those Charged with Governance
- COSO
- Internal Auditors
- ISO Technical Advisory Group
- Regulators (e.g., IFIAR and Securities and Exchange Commission)
- Taxing Authorities
“In medicine, physicians are expected to use better technologies as they come along if they significantly improve patient outcomes at reasonable cost. In auditing, professional standards should encourage auditors to consider and use technologies that increase assurance beyond the minimum required where economically feasible. Professional standards need to be technology agnostic, but that does not mean that they should not encourage auditors to make the best use of technology to perform the best possible economically viable audits.”

AICPA White Paper – Reimagining Auditing in a Wired World (August 2014)