Internal Audit’s Brave Not-So-Prudent, New World

2017 Annual WNY Conference
The always-increasing focus on the use of data for business decisions demands Internal Audit’s attention. Expectations are increasing for CAE’s to match the pace of business, if not contribute to it’s acceleration. Audit teams also need to find ways to increase the value provided through assurance and advisory practices, without becoming a drag on the company. This presentation will focus on various frameworks for launching and enhancing Audit’s data analytics practices. The session explores, through discussion and examples, practical approaches for implementing data analytics in planned audits, continuous audits and continuous risk monitoring.
Utopia or Dystopia

“Facts do not cease to exist if they are ignored.”
- Aldous Huxley

Huxley’s “Brave New World” includes the theme of a dystopian future caused by rapid technological change.

Companies rapidly investing in and adopting data analysis techniques, sometimes faster than Internal Audit develops analytics capabilities.

Current Internal Audit literature emphasizes the disparity between three factors:
- Expectations of data analysis from audit leadership
- Investment and development in audit data analytics
- Growth in data analysis techniques in business
Design for a new world: frameworks

Provide assurance over 1st and 2nd Lines of Defense Monitoring Practices
Develop continuous assurance and risk assessment to complement management’s monitoring
Transition continuous audit techniques to management
Design for a new world: frameworks

**Management**

- KPI
- Org. goals & obj’s
- Risks
- Controls
- Enterprise data
  - On-demand data mining
  - Data warehouse

**Internal Audit**

- Continuous risk monitoring
- Continuous control auditing
- Continuous data mining/auditing & fraud detection
  - Alerts
  - Continuous assurance dashboard

**Continuous Risk & Control Assurance Model**
Design for a new world: frameworks

**Monitor KPIs:** assess how risk management and control performance impact company

**Continuous Risk Monitoring:** focus on significant risks to company

**Continuous Control Auditing:** ongoing assurance over key & frequently-tested controls

**Continuous Data Auditing/ Mining:** continuous data testing (substantive testing) focusing on data quality, auditing ETL practices,

**Fraud Detection:** integrated into continuous assurance and monitoring, data testing that looks for patterns and trends potentially indicative of fraud

**On-demand Data Mining:** facilitate root-cause analysis from continuous assurance and monitoring. Provide self-service opportunities for audit teams.
Data analytics and the audit life cycle

- Increase assurance provided through testing of 100% of population
- Targeted sampling focused on transactions with higher likelihood of risk
- Build repeatable, automated data tests
- Develop data mining & fraud testing capabilities
- Assess whether data quality testing necessary between source systems and data repositories (data marts & warehouses, BI & reporting platforms)
Data analytics and the audit life cycle

- Follow a pre-planning checklist that includes common steps
  - Identifying data sources
  - Obtaining or defining data dictionary
  - Acquiring data
  - Data preparation
  - Verify data quality and completeness
  - Familiarize - graphing and visualization, statistical testing

- Identify needs for additional data
- Meet with audit team, deliver preliminary information
Data analytics and the audit life cycle

- Use analytic techniques to develop quantitative measures for the audit universe
- Monitoring of key business processes to identify exceptions and outliers
- Develop repeatable/automated processes to track key risk and performance indicators (KRI’s & KPI’s)
- Perform advanced analysis techniques to understand relationships, patterns and trends in business data
Data analytics and the audit life cycle

• Align data analytics resources to high risk entities
• Identify where data is available (e.g., business lines, shared functions, processes)
• Target high risk entities for testing of 100% of population
• Establish mix of scheduled audits, continuous audits and control & risk monitoring
Data analytics and the audit life cycle

- Capture remediation automatically through continuous audit of data
- Watch for repeat issues and backsliding
- Incorporate issue monitoring and remediation status into continuous assurance dashboard
Data analytics and the audit life cycle

- Incorporate audit report information into continuous assurance dashboard
- Provide means to report out on entities and audit results
- Automate updates to Audit Universe and Annual Risk Assessment processes
- Develop visualizations and dashboards for presenting with audit reports
Overview - What is Continuous Assurance?

Which of the following scenarios describe continuous assurance?

A. Refining company’s junior audit staff review every bank reconciliation due to a history of problems including fraud.

B. Large global manufacturing company’s CAE attends each disclosure review committee meeting, CFO’s quarterly calls with the division controllers where CFO questioned the controllers on the financial results, trends, variance explanations and potential financial reporting issues. CAE noted that these meetings were held and control procedures that were completed at these meetings were operating properly.

C. Member of IT Audit team attends IT operational review of the prior night’s batch processing daily.

D. Internal Audit members participate in employee training on building security or evacuation procedures.

E. Internal Audit members complete the annual employee certification of the code of conduct.
Continuous Assurance - Definitions

Helpful definitions

Institute of Internal Auditors (IIA): ...*any method used by auditors to perform audit-related activities on a more continuous or continual basis.*

Association of Certified Public Accountants (AICPA): *Continuous auditing defines the technologies and processes that allow an ongoing review and analysis of business information on a real-time basis. Continuous auditing will require specialized skills of audit personnel to monitor information electronically and incorporate the use of intelligent agents, computer modeling and other software tools.*

ISACA: ...*a top-down model that starts with enterprise goals and objectives, moves on to risks to the objectives and the controls required to manage the risks, and includes the mining of data that can provide indicators of risk and control health.*
Continuous Assurance - Definitions

Less helpful definitions

1. *Continuous auditing is the application of automated tools.* (various software vendors)

2. A recent research paper implied strongly that monitoring transactions provides assurance that controls are in place and operating effectively.

3. Some software vendors imply that effective continuous auditing can be achieved through the implementation of their out-of-the-box automated testing routines.
Examples

1. Control

   The gate (control) appears to be working.
   • Gate is down
   • Logs show gate raises for authorized badges in sample transactions.

   However the full population of data (including tire tracks) tells a different story.

   Control data (tire tracks)

2. RISK: My house may be robbed if it is not locked.
   CONTROL: I lock my front door every time I leave the house.
   DATA: My house was not robbed in 2016.

   Does this observation guarantee the control was operating effectively throughout 2016? Did I really remember to lock my front door every day (if at all)?
Wrap-up

Internal Audit’s use of data analysis:

• Prudent, if not actually necessary

• Should at least keep pace with the company’s use of analytics

• Expanding to all aspects of the audit life-cycle
Relevant Guidance & Governance

IIA Practice Advisory 2320-1: Analytical Procedures
IIA Practice Advisory 2320-4: Continuous Assurance
IIA GTAG - 3 (2nd Ed.): Continuous Auditing: Coordinating Continuous Auditing and Monitoring to Provide Continuous Assurance
IIA GTAG-16: Data Analysis Technologies

Continuous auditing: putting theory into practice (Norman Marks)

A Look into the Future: The Next Evolution of Internal Audit Continuous Risk and Control Assurance (Norman Marks, SAP)

Continuous Auditing Reexamined, ISACA Journal, Volume 1, 2010