Building a World-Class Data Analysis Function for Internal Audit

Michael Kano, ACDA
Agenda

- Why focus on DA?
- Characteristics of success
- Audit leadership support
- DA ownership and accountability
- Current data environment
- Role of the DA manager
- Evaluating DA implementation
Why focus on DA?

- Impossible to avoid
- Efficiency
- Scope
- Effectiveness
- Competitive edge
Characteristics of Success

- Leadership support
- Designated owner
- Strategic and tactical integration
- Unfettered access to data
- Appropriate software
- Measured/measurable outcomes
- Investment approach
The Challenges

- Lack of accountability for DA
- Vague objectives
- Internal/external resistance
- Complex data environment and culture
- Reliance on unreliable applications
- Funding
Support Actions

- Embed right to access all data in audit charter
- Audit Committee recognizes role of DA
- CAE establishes DA objectives in performance measures
- Integration of DA processes into audit operations manual
- Budget/planning line item
“The Internal Audit team is authorized by the Audit Committee to:

- Have *unrestricted access* to all premises, corporate records, information and personnel;
- Require any officer of the company to supply such information and explanations as may be needed; …”
Importance of Data Access

- Foundation for success and growth
- Supports
  - Independence
  - Confidence in data
  - Expansion of scope
  - Increased productivity
  - Greater timeliness
DA Performance Measures

- Audit management
- Audit teams
- Individual auditors
- 15% of performance bonus based on feedback from DA manager
- Documented expectations, standards, & timelines for DA manager
 Explicit and unambiguous DA-specific steps and processes
  - Step 1: "Where can we use DA in this audit?"

 Involvement of DA manager in all audit meetings where DA is being leveraged

 Work papers include DA plan, progress reports, and results
Budget

- Basic software and support
- Software add-ons
- Training
- Dedicated server(s)
- Security
  - Physical: Dedicated server location
  - Logical: Encryption/obfuscation
DA Ownership and Accountability
Ownership

- Formal DA leadership position
- Reports to CAE
- 100% dedicated to DA
- Permanent part of audit leadership meetings
- Budget for DA development
Accountability

- Regular progress report on DA integration
- Scorecard for contributions to audits
- Contribution to IA operations manual
- Formal feedback from audit leaders, management and business
- Technical development of IA staff
The Current Data Environment
Diversity of applications
- Transactions
- Ticketing
- Project management
- System of record

Vast number of platforms

Mergers and acquisitions

Overlaps and gaps

Massive data volumes
Opacity

- Lack of comprehensive/centralized oversight
- Inconsistent documentation standards
- Strong security requirements
- Lack of portals for data access
- Defensive
- Unfamiliar with role of IA
- No budget for IA support
The Role of the Data Analysis Manager
Characteristics of the DA Manager

- Advanced DA skills
- 4-5 years of successful application in audits
- Strategic leadership profile
- Able to articulate benefits and identify opportunities
- Passion for DA
The First 3 Months

- Familiarize IA leadership with DA benefits
- Educate IA staff in DA capabilities
- Identify quick-win opportunities for DA in audits
- Document key data sources
- Develop DA integration with operations
DA Manager

- Create and maintain relationships with data owners
- Create data access procedures
- Create and maintain documentation
- Ensure technical skill development
- Initiate alliances with other DA teams
- Understand significance of data to the organization
- Serve as the department’s data steward
Evaluating DA Implementation
Quantitative Indicators

- Number of controls tested
- Number of candidates identified for CA/CM
- Recovered costs
- Uncollected revenues
- Present value of efficiencies
- Productivity
- Software
- Documentation
- Mature DA
Qualitative Indicators

- Greater independence
- Shorter audit cycles
- Enhanced controls
- Improved department image
- Increased value to organization
Specialized Data Analysis Software

- Review 100 percent of transactions
- Read-only
- No limit on file size
- Integrate data from different applications & systems
- Audit-specific functionality
- Ability to automate frequent testing of high-risk areas
- Maintain comprehensive logs of all activities performed
Use of Spreadsheets

- Limited data integrity protection
- Limited capacity
- VBA for programming
- Potential for error
  - Audits of 54 spreadsheets found that 91% had errors*
  - 30-90% of spreadsheets suffer from at least one major error*

*“The Use of Spreadsheets: Considerations for Section 404 of the Sarbanes-Oxley Act,” PwC, July 2004
What To Include

- Audit workpapers
- Corporate data matrix
- Technical documentation
- User documentation
- Data source guide
Audit Workpapers

- Control being tested
- Description of analytical logic
- Results of analytical tests
- Copy of script
Corporate Data Matrix

- Basic information by BU and process
- Working document basis for data source documents
- Good document for new hires to learn data geography
<table>
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<th>Business Area</th>
<th>Org 1</th>
<th>Org 2</th>
<th>Org 3</th>
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<td><strong>Accounts Payable</strong></td>
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<td>System Name</td>
<td>Oracle Financials</td>
<td>Teradata</td>
<td>SAP</td>
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<td>Resource(s)</td>
<td>Diana Delphi</td>
<td>Vishal Gupta</td>
<td>Hans Datameister</td>
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<tr>
<td>Access Method</td>
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<td>Teradata SQL Assistant</td>
<td>Direct Link-ACL</td>
</tr>
<tr>
<td>Key Tables</td>
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<td>dim_payables, dim_vendors</td>
<td>BSEG, BKPF, LFA1</td>
</tr>
<tr>
<td>Notes</td>
<td>Headers contain dates, lines do not.</td>
<td>Use SQL Joins with filters; extract to .txt for ACL import.</td>
<td>Column titles are truncated when exported from ACL; use alternate names.</td>
</tr>
</tbody>
</table>
DA Application Documentation

- User documentation
  - User guide
  - Sample projects/data
  - Best practices guide

- Technical documentation
  - Specifications
  - Requirements
Data Source Guide

- Expands on basic information in matrix
- Step-by-step data access guide
- Key table layouts
- Create in Word with change date embedded
- Save as PDF for library
Data Source Guide: Key Information

- System name
- Organization
- Key databases
- Data content
- Owner
- Server
- Network access
- Information resources
- Training
- User guide
- Data dictionary
- Key tables
- Table access methods
What to look for

- Automatic consideration of DA in audit planning
- Continuous Auditing/Monitoring implementation
- Regular feedback
- Recognition of DA contributions
For additional information on Sunera’s services, visit our website at [www.sunera.com](http://www.sunera.com) or contact:

Michael Kano  
Senior Manager, Data Analytics  
(408) 887-4843  
mkano@sunera.com