Leveraging ACL to Drive Internal Audit’s Value

November, 2013
Objective

» Inspire the usage of data analysis to achieve greater insights into controls and operations, thereby increasing the level of value achieved by IA. Wherever there is data there is an opportunity.
1. “Data is becoming the new raw material of business”
   (Craig Mundie, Head of Research & Strategy, Microsoft)

2. “Information is the oil of the 21st century, and analytics is the combustion engine”
   (Peter Sondergaard, Senior Vice President at Gartner)

3. “It is a capital mistake to theorize before one has data”
   Sherlock Holmes, A Study in Scarlett (Arthur Conan Doyle)

4. You can have data without information, but you cannot have information without data.”
   (Daniel Keys Moran)

5. “The most valuable commodity I know of is information”
   Gordon Gekko (Wall Street – 1987)

6. “Torture the data and it will confess to anything”
   Ronald Coase, Economics, Nobel Prize Laureate

7. “Data that is loved tends to survive”
   Kurt Bollacker, Data Scientist, Freebase/Infochimps

8. “Data matures like wine, applications like fish”
   James Governor

9. “If we have data, let’s look at data. If we all have opinions, let’s go with mine”
   Jim Barksdale, former Netscape CEO
About Me - Career

» IA Director at FICO (Present)
» Audit Manager at Illumina (2011 – 2013)
» Audit Manager at Scripps Health (2005 – 2011)
» Senior Auditor at Scripps Health (2001 – 2005)
» KPMG in Washington DC (1999 – 2001)
About Me – ACL Certified Trainer

» Using ACL “almost daily” since 2002.

» Obtained ACL Certified Data Analyst (ACDA) designation in 2009.

» Became ACL Certified trainer in 2012.
Keys to Success

» Commitment at the Top
» Make the Investment - Buy Licenses
» Send team to training
» Push and challenge
» Give team the time and “space” to grow.
» Evaluate team accordingly/accountability.
» Identify your analyst(s).
ACL – Through the Review Cycle

» Planning
  » SUMMARIZE (by Location, Product, Region, Station, etc) or CLASSIFY Data
  » RELATE (Add Vendor Name to Invoice file) & JOIN Data
  » FILTER (Date Range, Greater than $0, etc.) & EXTRACT (New File) Data
  » STRATIFY Data (Frequency Distribution - $ buckets)
  » SAMPLE (Random, Statistical)

» Validation
  » VERIFY Key Fields (No corrupt data)
  » Look for GAPS (check sequence)
  » Look for DUPLICATES (payments, employee id, etc)
  » Control Totals tie-out to source
  » Data looks reasonable
**ACL – Through the Review Cycle**

**Preparation** (80+ functions)
- ISBLANK()
- BETWEEN()
- STATISTICS
- SUBSTRING()
- TOTAL
- SUMMARIZE

**Analysis**
- Compare data between files/systems (reconcile, edit/exception reporting)
- Identify data missing across files/systems (reconcile, edit/excepting reporting)
- Test 100% of data
- Age and analyze transactions
- Identify trends, exceptions
- Create New Fields (computed, etc)
- Continuous Audit & Monitoring (automate)
ACL – Functions

» There are 80+ functions which are extremely useful.

» Take data analysis to the next level

» Enables you to do “data gymnastics”

» Prepare data for analysis, joining, etc.

  » REPLACE (swap / for -)
  » EXCLUDE (remove dashed in phone #)
  » INCLUDE
  » SUBSTRING (change length of field)
  » VALUE (character to numeric)
  » STRING (numeric to character)
  » “Nest” functions (e.g. create new key fields)
  » ALLTRIM (remove leading spaces)
  » UPPER (change field to all Upper case)
  » LOWER (change field to all Lower case)

» Embed in New Fields (taking characteristics of other fields)
Adding Value (3 Key Aspects

- Regulatory
- Financial
- Operations
Adding Value (Financial Impact)

Improve the Bottom Line

» Duplicate Invoices ($1.5M in 18 months)
» Identify overpayments (load contract terms)
» Identify “expensed” capital expenditures
» Identify multiple vendors/suppliers for single parts or service.
» Detect/Prevent Fraud
Adding Value (Regulatory Impact)

Compliance with Laws & Regulations

HIPAA:
» Clean up computer equipment repository
» Confirm terminated users have no access
» Proactively identify active employees that have not logged into Active Directory

SOX: Not just test but build controls
» Confirm Payroll data is complete and accurate each pay period.
» Continuously monitor system access (identify SOD violations)
» Determine whether Rev Rec control is configured properly.
» Quickly achieve sample population (Journal Entries)
» Resolve issues with external auditors (frequency distribution)
» Automate sample selection (statistical, random)

Others:
» FCPA/UK Anti-Bribery
» PCI DSS
» FIAR Guidance
» Sunshine Act (multiple physician log-ins across various clinical information systems)
Adding Value (Operations)

Operations

» Confirm efficiency or lack thereof (A/P invoicing, A/R receipts)

» Evaluate service delivery (key municipal operations)

» Assist with forecasting inventory parts against required stock levels.

» Automate monthly activities (e.g. G/L reconciliations, exception reporting).

» Automate generation of exception reports identifying discrepancies (Rev forecast).

» Confirm completeness of certain types of payments each month (e.g. royalties).

» Measure period between two key dates/times
  » Fire and Police department response times.
  » Measure any kind of action against service level requirements.

» Evaluate key databases (e.g. accuracy, completeness) to understand the quality of data and understand how well it is being captured.

» Confirm completeness of data prior to processing (e.g. payroll).

» Verify data flow between system interfaces (build a “checkpoint”).
You are in Trouble if You....

I. Don’t Understand Your Data
   » Don’t commit unless you are familiar
   » Run your data in parallel with process owners – do results tie?
   » Process owner should confirm first

II. Don’t Catch Import Errors
   » Be sure data has been imported properly and completely (tie to source)
   » Validate data

III. Get the Wrong Results
   » Proficiency is key
   » Inexperience means mistakes will occur
   » Somebody else questions your results
   » Review – print the log
Benefits

» Become a resource to the business

» Dramatically reduce audit cycle times

» Improve insights into the business

» Automate time-consuming and repetitive tasks

» Clean up data repositories (assets) [Normalize/Harmonize]

» Great for assessing system access (e.g. users, roles, functions)

» Great for identifying SOD issues

» Confirm data is accurate and complete

» Confirm data through interfaces, passing through various systems

» Assist with Antifraud Program efforts

» Flatten Word and PDF reports

» Fun for your team – adds an exciting element to audit

» Extremely Empowering!
Any Burning Questions???
THANK YOU