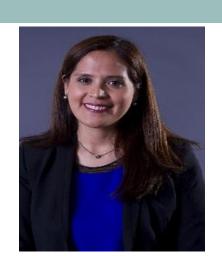
STRENGTHENING COMPLIANCE PROGRAMS THROUGH DATA ANALYTICS AUDITING, TESTING, AND MONITORING



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DISCLAIMER

The views and opinions expressed in this presentation are from the authors and do not reflect the official policy of any company. Examples of analysis shared within this presentation are only examples, and any assumptions made are not reflective of the position of any particular company.

AGENDA

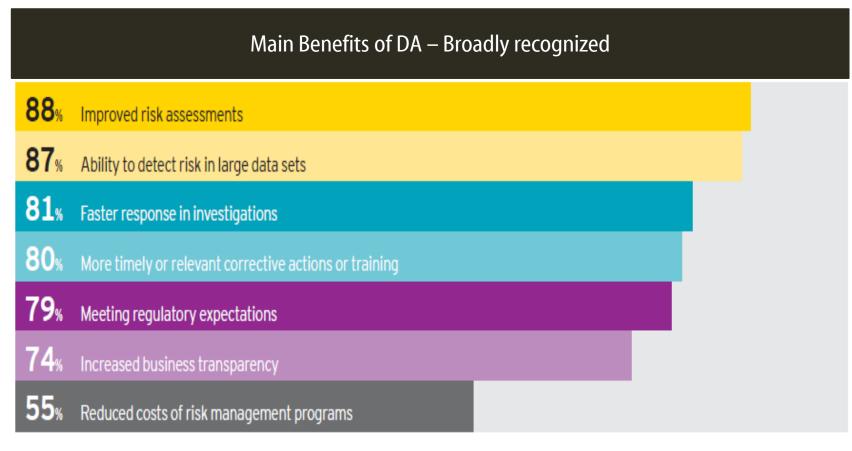
Why is Data Analytics important?

Where Do I Start with Data Analysis and Monitoring?

- What Is My Environment?
- What Data Do I Have?
- How Is It Stored?
- How Can I Use the Data?
- Who Can Help Me?
- Johnson and Johnson Example: Expense Report Auditing
- Questions/Comments?

WHY IS DATA ANALYTICS IMPORTANT?

- Provide the big picture of the situation through inspection of 100% of financial transactions and focus in the most relevant data;
- Reports of unexpected patterns, potential errors and insights;
- Identify anomalies, matching and tracing transactions with inconsistent data



Source: EY Global Forensic Data Analytics Survey 2018

WHAT IS MY ENVIRONMENT?

Prescriber

Client & Provider

Payers

Innovator/Branded Gen.



- o Medical Promotion
- Samples
- Promotional material
- o Studies; Congress
- Medical Affairs





Listing
Coverage
Safety Stock
Negotiation







Patient programs Patient education

Health Outcomes

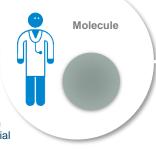
 Population Management



Retail market

Institutional market











- AccessTender
 - Service





- Medical Promotion
- Promotional material
- o Studies; Congress
- Medical Affairs



WHAT DATA DO I HAVE?

CRM Systems (SFA/ETM Tools)

HCP Registries

KOL Management / Physician Networks of Influence

Speaker Portals

Field Sales Communications

Expense Reporting Data

Market Research Data / HCP Rx Data

Medical Information Tracking

Clinical Investigation and PV Monitoring Data

Digital/Social Networking Input

Vendor Due Diligence Records

Contracts

Third Party Administrator Records

HOW IS IT STORED?

Unstructured Data:

Email/Text Documents (Word/Excel/PowerPoint)

Semi-Structured Transactional/Relational Data:

Web Pages/XML, CRM Data

Structured Data (Inter-related/Tabular):

SQL Databases, BI Data Warehouse

Images/Pictures

Other Data Types:

Work Papers, Handwritten documents

HOW CAN I USE THE DATA?

- ■Trends/Tendencies/Outliers
- ■Statistical Analysis/Correlation
- KPI's/Dashboards
- ■Data Mashups
- ■Business Strategy Discussions

Managing Conflicts of Interest

Contract Management

3rd Party Due Diligence & Risk Management

Monitoring Sales Force Promotional Practices Auditing Expense Reporting

Meetings & Events
Tracking/Monitoring

Customer Relationship

Management

Monitoring

Improving Data Privacy,
Security,
Protection, Retention

Aggregate Spend Tracking/Reporting

WHO CAN HELP ME?

- Internal Data Analysis Experts
 - Market Research
 - Business Intelligence
 - Clinical Data Operations
- Internal IT Resources
- External Experts/Consultants
- Software Companies Offering Mashup Solutions



USE CASE: AUDITING RISK AREAS

Expense Reports

Raw Data:

- # and Type of Transactions
- Cost/Transaction
- Date, Location and Cost of Each Transaction
- Receipts submitted

Issues You Can Analyze:

- Average Cost of Transactions
- "Frequent Flyer" Event Attenders
- Spend Patterns
- Fraud Detection

Meetings and Events

Raw Data:

- # of Events
- Cost/Event
- Event Type
- Location
- # Attendees
- Who Attends
- Speaker Utilization/Contracts
- FMV
- Duration

Issues You Can Analyze:

- "Frequent Flyer" Speakers or Attendees
- Speaker Fees/Event
- Frequency of Location
- Cost/Location
- FMV Compliance
- Reps/Type of Events

Sample Management

Raw Data:

- Total # of Samples
 Distributed
- Total # of Samples Recorded
- HCPs Receiving Samples
- Type of Samples Given
- Total # Samples Given
- Signatures for Samples

Issues You Can Analyze:

- Sample Distribution Patterns
- Consistency with HCP
 Targeting, Segmentation
- Process Compliance (Signature)
- Deviation by Reps

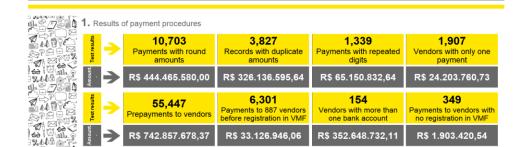
EY - DASHBOARD EXAMPLES



Payments Information

List of all tests performed in payments database





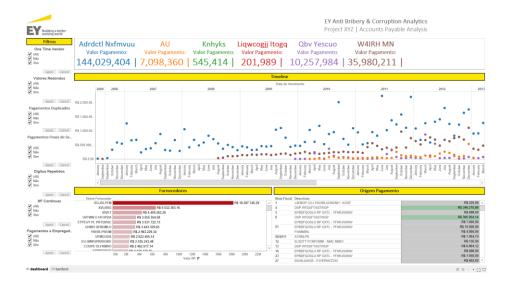
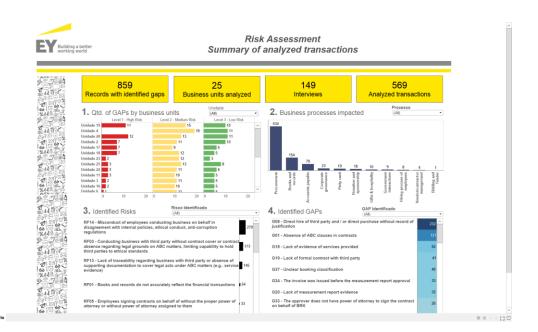


TABLEAU SOFTWARE IS ONE OF THE OPTIONS FOR DATA VISUALIZATION

- ✓ BUILT SPECIFIC QUERIES BASED ON KEY RISKS INDICATORS
- ✓ ANALYZE HIGH RISK TRANSACTIONS
- ✓ APPLY STATISTICS AND MATH TECHNIQUES
- ✓ QUICKER VIEW FOR YOUR QUESTIONS ABOUT DATA AND BUSINESS



JOHNSON & JOHNSON APPROACH - BACKGROUND

Started in 2012 with FCPA audits

More efficient and effective way to test FCPA transactions

Deferred Prosecution required statistical sampling methodology

Prior methodology: obtain list of payments from J&J entity we are auditing; download to Excel sort through and manually review payments for possibly unusual transactions; translate on internet text that is not in English

Issue: too much time and not efficient; cannot audit everything

JOHNSON & JOHNSON APPROACH

Analytics Tool

DA Tool introduced to us by EY

SQL and Tableau are used

Requires individual with SQL skills to run data

Current Uses:

Payments

Expense Reports

Distributor margins

Vendor overcharges

Note: Works best with large data set

JOHNSON & JOHNSON APPROACH

Results

Finds expenses that do not comply with policy: few false positives

Identifies high spenders: some false positives

Identifies unusual payments: many false positives, some inappropriate transactions identified

Identifies high(er) distributor margins for follow up

Identifies vendor overcharges

Identifies unusual financial transactions

Free text translation very helpful to understand transactions

JOHNSON & JOHNSON APPROACH — TYPES OF ANALYTICS

Current State

- FCPA Payments
- FCPA T&E
- FCPA Distributor
- Journal Entries
- Continuous Risk Review (CRR)
 - Payments
 - T&E

Future State

- Cost Recovery
- Channel Stuffing

JOHNSON & JOHNSON APPROACH — CRR STRATEGY



Enhance compliance by providing a comprehensive regional & country view of the compliance environment



Greater coverage



Near real-time analysis of compliance risks – audit frequency increased vs. scheduled based (e.g., bi-annual v. every 3 years)



Less intrusive approach at Company-level



Cost effective and efficient



Supports ongoing monitoring

JOHNSON & JOHNSON APPROACH



Build an analytics model to proactively identify high risk transactions



Standardized approach that can be deployed globally



User friendly



Methodology must be defensible



Must result in efficiencies in the audit process

JOHNSON & JOHNSON APPROACH - TIMELINE

2016-17 @RISK used in all FCPA audits 2018-19 CRR T&E audit kicked off; CRA audit in planning

2011-12

Co-developed DA with EY. Partnered with HCC&P. Pilot in 2 countries

2013-14

*Enhancements to Tableau dashboard and Rule-sets. Selective roll-out 2014-15

@RISK used in mostFCPA audits. *On -going enhancements.@RISK fully in-house

QUESTIONS/COMMENTS?

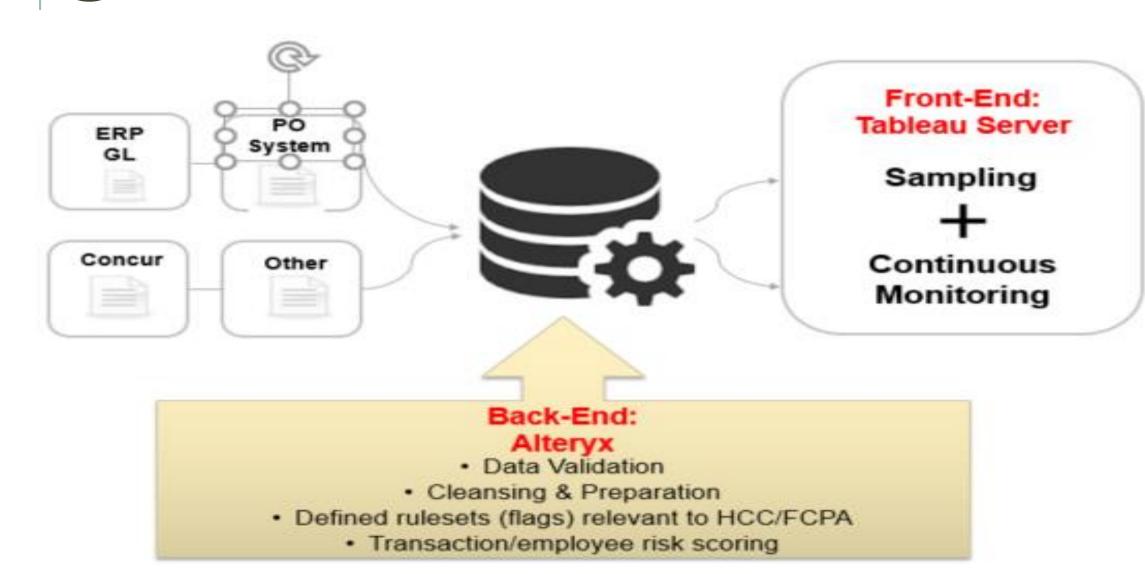
THANK YOU!

BACK-UP SLIDES

JOHNSON & JOHNSON APPROACH — CRR T&E METHODOLOGY RULE SETS

#	Rule Set Title	Risk Ranking Guidance
1	Duplicate Expenses	High risk/high score, usually indicative of other types of fraud.
2	Overlapping Attendees	High risk/high score. Indicative of employee collusion. Was not a frequent observation.
3	Exceeding Thresholds	High risk/high score. FCPA risk involved.
4	Suspicious Merchant Classification Codes (MCC)	Medium risk/mid-range score. Difficult to eliminate false positives.
5	Approver in The Attendees	Medium risk/mid-range score. Managers tend to claim convenience was the reason.

JOHNSON & JOHNSON APPROACH — © RISK ETL PROCESS & METHODOLOGY



JOHNSON & JOHNSON APPROACH — CRR TRAVEL & ENTERTAINMENT (T&E)

Uses analytics to review submissions of T&E from Concur at a Regional or Country level for a more efficient and effective review.

CRR T&E is based on targeted rulesets and enhanced risk scoring to flag high risk transactions. CRR T&E facilitates continuous auditing.

JOHNSON & JOHNSON APPROACH — CRR T&E METHODOLOGY



Staff review employees / transactions and select samples







Analytics Risk Score Engine

13 Rulesets

400k transactions were flagged based on 13 rulesets



Scoring Employees

Scoring is based on aggregating frequency of flagged transactions and the risk score of individual transactions

Ranking Employees

Employees are ranked from riskiest to least risky by 1) country and 2) overall regional risk score

Two Dashboard Views Generated

- Top 75 riskiest employees overall regionally
- Top 15 riskiest employees by country

