

The Use of Data Analytics in Compliance

Latin America Pharma Congress
July 29, 2014 | Mexico City

Taka Ariga
Fraud Investigation & Dispute Services



Building a better
working world

A systematic approach to answering compliance questions

Efficiently sift through volumes of data and uncover unusual patterns **before** the anomalies manifest into incidents that could lead to costly and lengthy investigations.



Driver of analytics

VOLUMES OF DATA & COMPLEXITIES OF OPERATIONS

Creating significant challenges to effectively and consistently monitor for operational/regulatory/financial risks.

REGULATOR'S EXPECTATIONS

The bar has been raised on what constitutes an effective monitoring and testing program.

EVOLVING REGULATORY ENVIRONMENTS

Evolving regulations, overlapping jurisdictions, and recent enforcement trends.

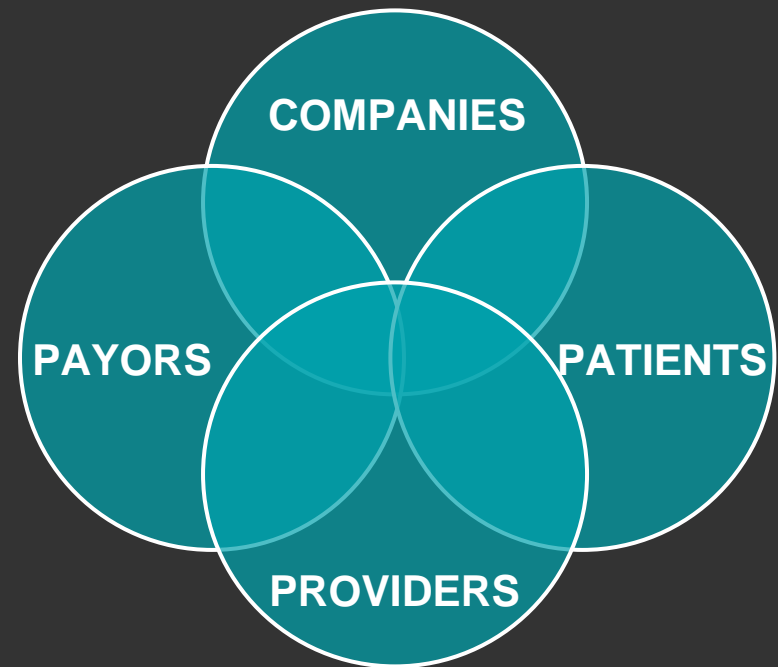
IMPROVED OPERATIONS & COMPLIANCE

Adopting forensic data analytics improves adherence to company policy and enhances fraud prevention and detection.

Top risks we are seeing

- ▶ Bribery and corruption risks – transfer of values
- ▶ Regulatory compliance
- ▶ Fraud and abuse
- ▶ Third-party integrity
- ▶ M&A due diligence

Increasing Stakeholder Population



Breaking down the risks

- ▶ **Speaker programs**
- ▶ Meals, travels, & entertainment
- ▶ Vendor payments
- ▶ **Distributors & other 3rd parties**
- ▶ Samples distribution
- ▶ Medical information request
- ▶ Grants and sponsorships
- ▶ Charity & donations
- ▶ Sales and incentives
- ▶ **Social media**
- ▶ Fee for service
- ▶ Call planning and incentives



How are global pharma companies responding?

- ▶ **Teaming** between compliance, legal, and internal audit to test and monitor risks
- ▶ Integrating **new analytics** to ask more sophisticated questions

Text
Analytics

Predictive
Analytics

Social
Media

Social
Media

Visualization

Risk
Modeling

- ▶ Integrating proactive analytics to broader **enterprise risk management**
- ▶ Establishing a **Center of Excellence** approach to drive values
- ▶ Moving away from sampling and **test 100%** of data

Adoptions across industries

2014 Global Forensic Data Analytics Survey

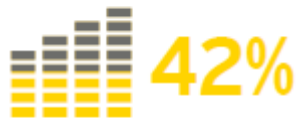
	Transportation	Financial Services	Life Sciences	Oil and Gas	Manufacturing	Consumer Products / Retail / Wholesale	Technology, Comm., and Entertainment	Mining	Power and Utilities
Bribery and corruption risks	82%	66%	80%	76%	74%	74%	61%	90%	77%
Money laundering	30%	80%	24%	29%	23%	31%	17%	24%	17%
Asset misappropriation	82%	56%	78%	86%	71%	85%	70%	90%	74%
Financial statement fraud	79%	54%	67%	63%	71%	68%	52%	62%	51%
Mergers and acquisitions	42%	25%	43%	29%	48%	30%	26%	41%	32%
Capital projects	45%	34%	50%	65%	58%	53%	48%	72%	83%
Others	6%	16%	11%	8%	10%	4%	13%	0%	13%

Room for improvements

2014 Global Forensic Data Analytics Survey

- ▶ 63% of LS companies agree they need to do more to improve their anti-fraud/anti-bribery procedures
- ▶ 63% of LS companies say that big data technologies can play a key role in fraud prevention and detection
- ▶ Data volumes analyzed are relatively small
- ▶ Data sources analyzed not aligned with technology

Not such big data!



Work with data sets under 10,000 records

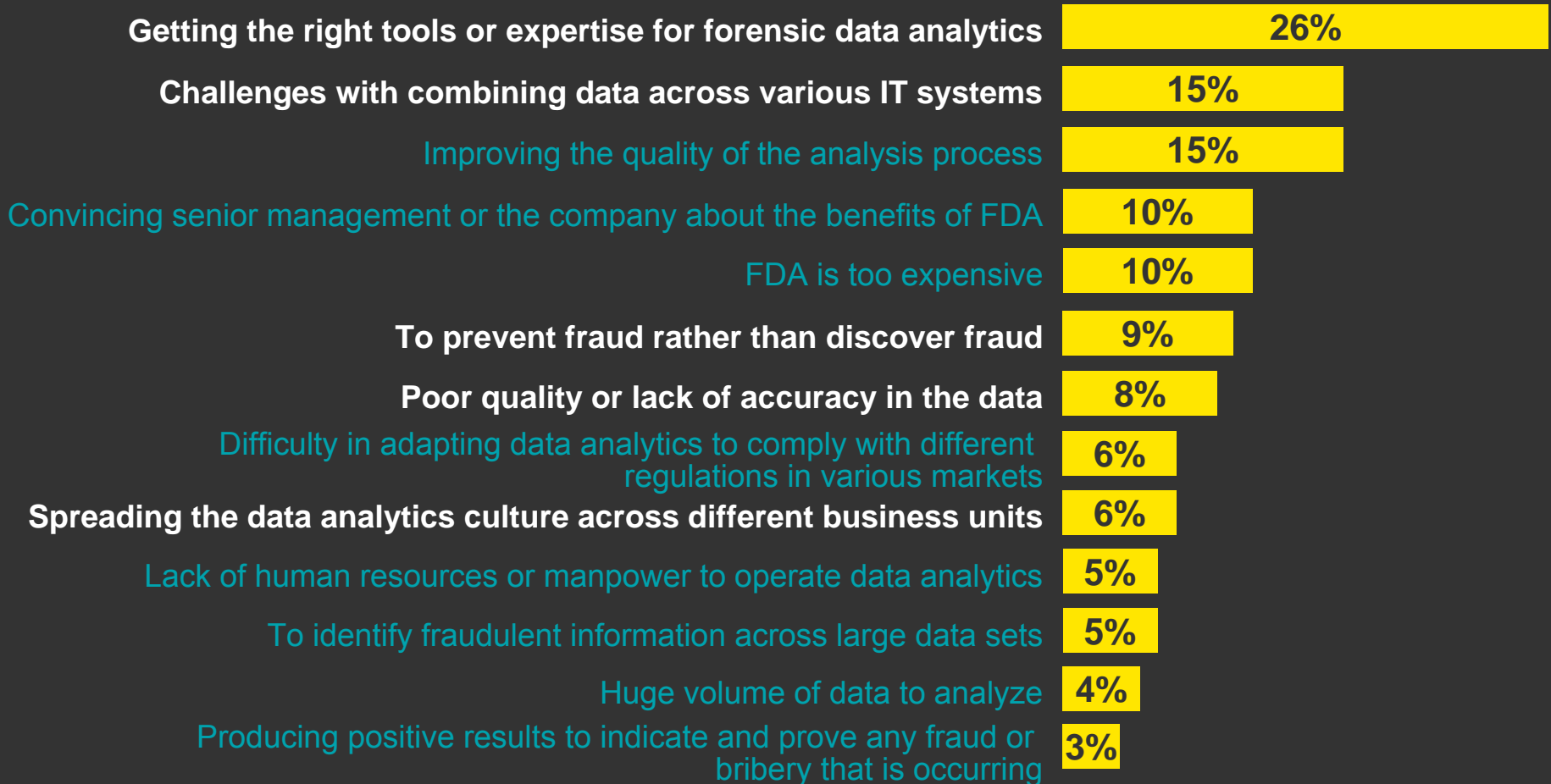


Work with data sets of one million records or fewer

	Total
Spreadsheet tools such as Microsoft Excel	65%
Continuous risk monitoring tools (SAP, Oracle)	29%
Text analytics and keyword mining	26%
Forensic analytics software (ACL, IDEA)	26%
Social media monitoring	21%
Visualization	12%
Statistical analyses and predictive modeling	11%

What are the challenges?

2014 Global Forensic Data Analytics Survey



Big data approach to compliance analytics

In our experience, no one tool or technique “does it all”. Analytics about having the capacity and capabilities to develop a customized solution + the domain knowledge to contextualize results.

INTEGRATING MULTIPLE DATA SOURCES

Meal & Call Interactions

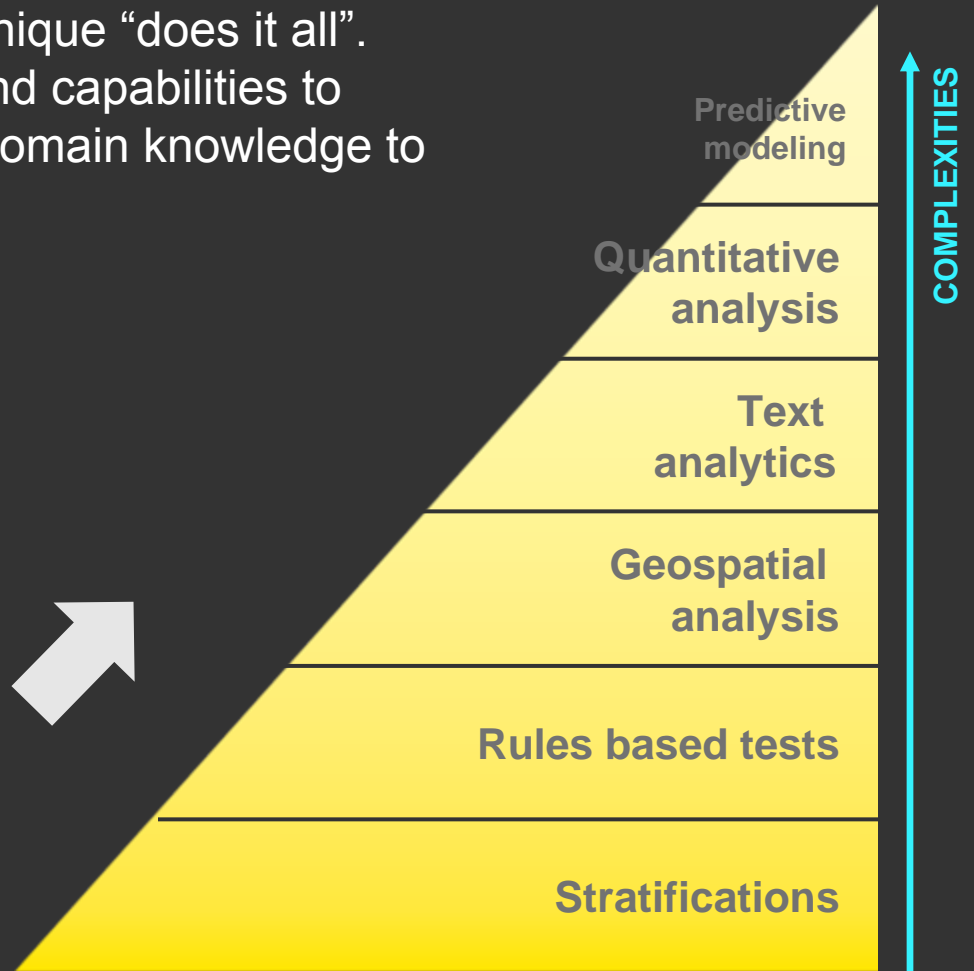
Educational Materials

Speaker Programs

Social Media

PIR Requests

Accounts Payable

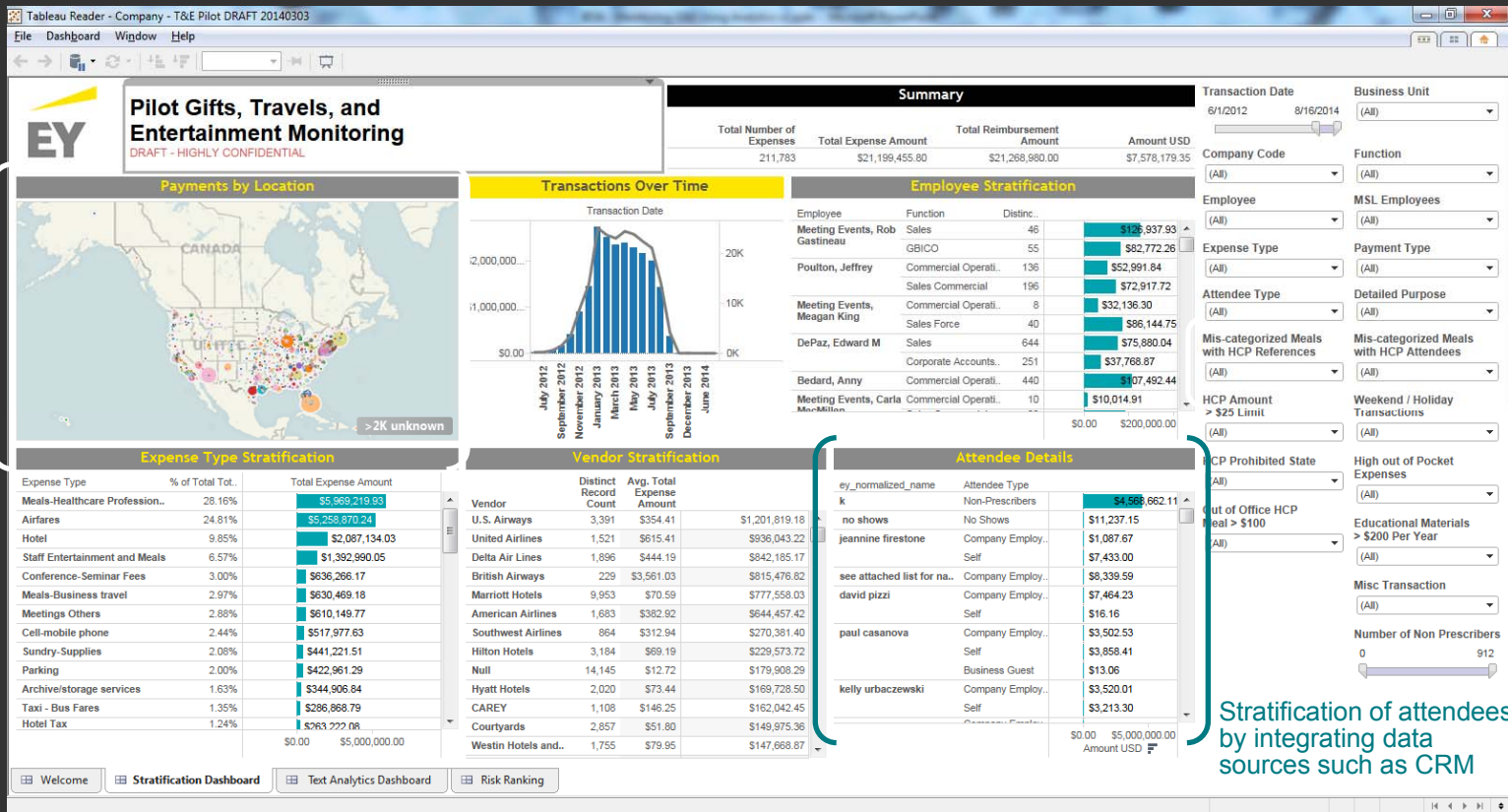


Show me, don't tell me

Visualize results to promote consumption

Suite of tests specifically tailored to each organization. Results can be filtered based on functional attributes. Specific anomalies can be highlighted based on multiple dimensions.

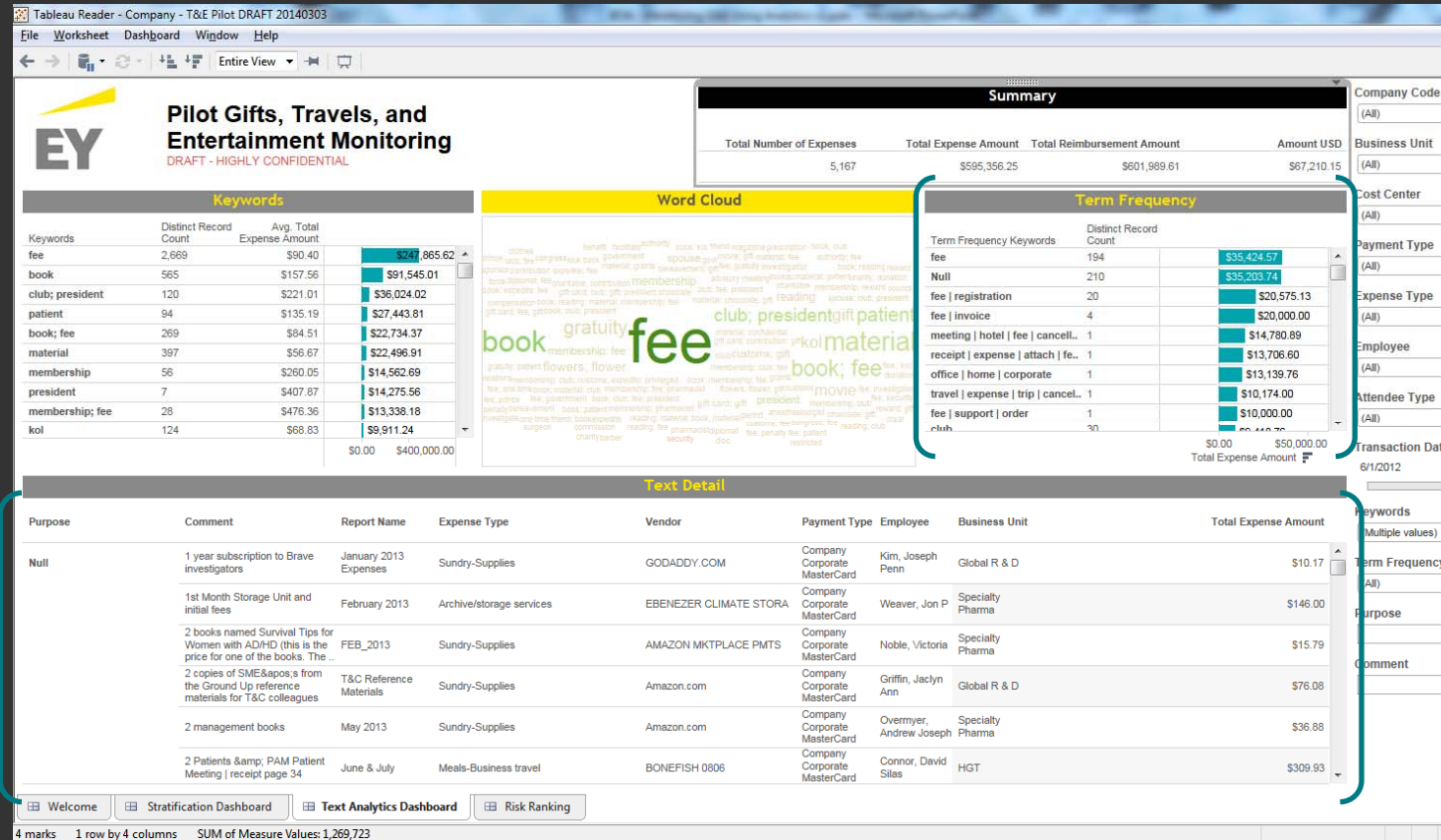
Mapping of G&E activities based on locations to understand trends



Look for expenses that may be mis-categorized for potential policy non-compliance

The power of unstructured data

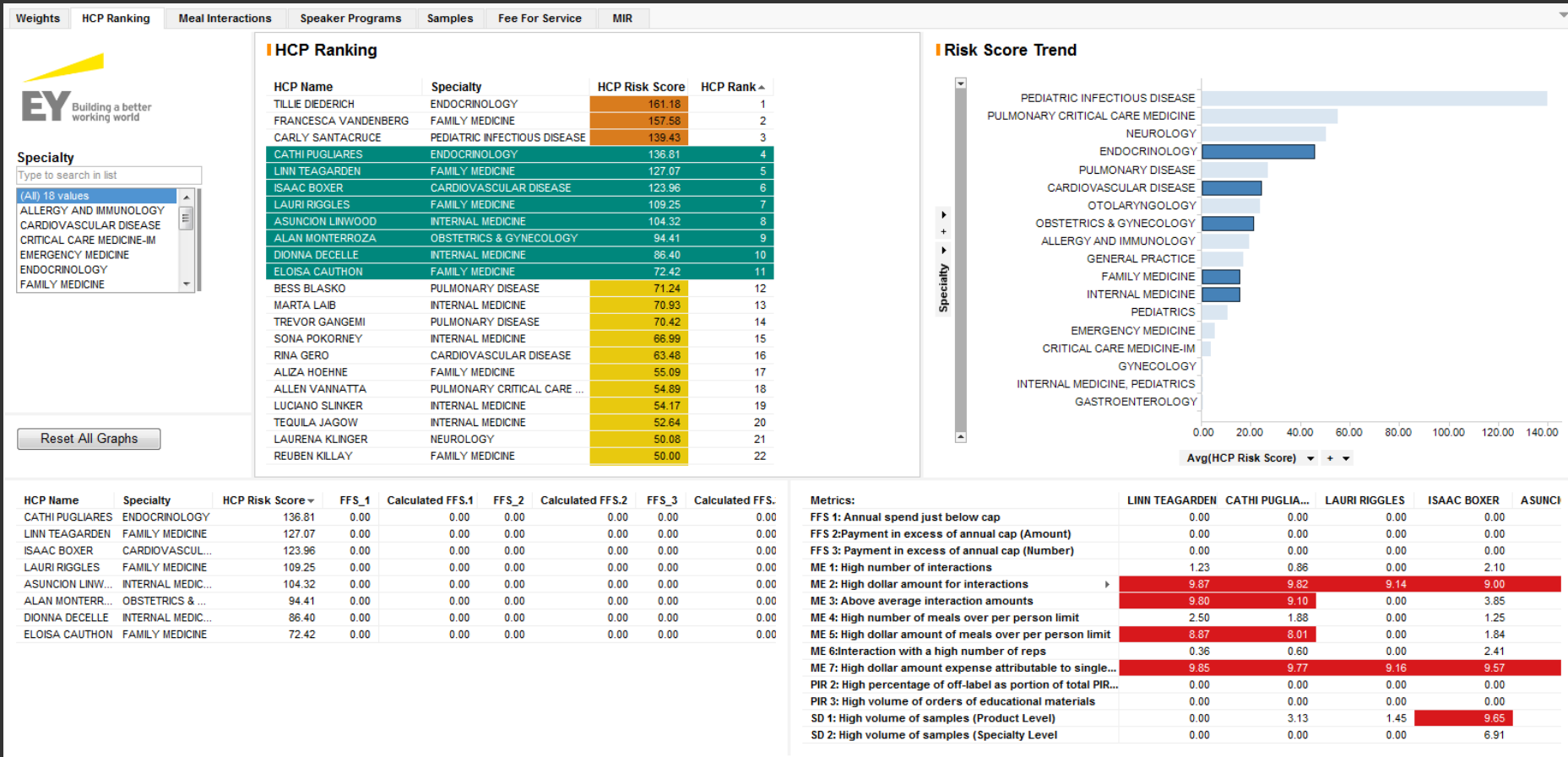
Text analytics plays a key role in an effective compliance monitoring framework.



Unsupervised approach to text mining by tabulating frequency of nouns or combination of nouns

Underlying details that include full content from free-text fields to support review and contexts.

Use risk ranking to quantify exposure



Reinvigorated application of statistical techniques

- ▶ “Show me other similar risky transactions” – recommendation engine
- ▶ Establishing “norm” across regions
- ▶ Risk exposure and potential damage assessment
- ▶ Near real-time transactional monitoring

Driving value across the enterprise

Collect data once, repurpose many times!

Objectives that the organization wishes to prioritize on are identified.

The domains / processes are identified. These may vary based on the focus of the organization and the availability of data.

Every 'Analytic' is aligned with a specific business objective (indicated by the color coding on this 'Quilt'. This helps establish the desired outcomes.

The analytics are developed in a sustainable manner and combined to provide overall insights per the defined objectives and outcomes.

Business Objectives							
Grow the Business			Improve Cash Flow		Operational Effectiveness		
Reporting / Compliance			Cost Reduction		* Anti Fraud		
Finance	Human Resources	Tax / Treasury	Contract & Delivery	Supply Chain	Fraud Analytics	Assets, Leases	Others
G/L Analytics	Payroll Analysis	Depreciation	Contract type, risk analysis	Vendor risk profiling	* FCPA analytics	Asset / Lease cost analysis	Data quality analysis
Ratio Analysis	HR Master data analysis	Policy compliance	Contract term analytics	Alliance, cost benefit analysis	* Anti Money Laundering	Use / Buy decision review	True cost of data issues
Profitability Analysis	Payroll Over payments	Reconciliation Analysis	Delivery / SLA compliance	Spend analytics	Variance analytics	Total cost of assets review	SOD impact analytics
A/R, Credit analysis	Talent Mgmt	Intercompany Analysis	Invoicing trend analysis	Client initiated procurement	* Fraud investigations	Depreciation impact analysis	Security data analytics
Time & Expense Analysis	Compensation Analysis	Tax policy compliance	Collection analysis	Discount terms, use analytics	* E-discovery analytics	Capitalization reviews	Close metrics performance
Cash Flow Analysis	Overtime analysis	Tax rate analytics	Contract cash flow analysis	Category Management	* Text mining	Lease payment analytics	Revenue recognition
A/P Analysis	Employee effectiveness	Entity structure analysis	Contract cost analytics	Acquisition strategy review	* Other fraud analytics	Asset / Lease risk analytics	Project effort estimation
Assess risks, detect issues, predict anomalies...							

Thank you.

TAKA ARIGA

Fraud Investigation & Dispute Services
taka.ariga@ey.com
+1 202.327.7028
Ernst & Young LLP

VINCENT WALDEN

Fraud Investigation & Dispute Services
vincent.walden@ey.com
+1 212.773.3643
Ernst & Young LLP



About EY

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit ey.com.

Ernst & Young LLP is a client-serving member firm of Ernst & Young Global Limited operating in the US.

© 2014 Ernst & Young LLP.
All Rights Reserved.

1402-1196736

This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax, or other professional advice. Please refer to your advisors for specific advice.

ey.com