



FORENSIC AUDIT SEMINAR

Presentation by:

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Uphold public interest

Agenda



IT Tools, Techniques and Data Analytics in Fraud Auditing

- 1. Technology as a driver for fraud detection and investigation*
- 2. IT tools and Techniques*
- 3. Using Data Analytics for Fraud Auditing*

Technology as drivers for fraud detection and investigation



Business is being managed and stored by IT systems. Organizations now heavily reliant on IT systems to support business processes in order to improve efficiencies, with reduced levels of human intervention

Technology as drivers for fraud detection and investigation



Fraudsters are increasingly becoming “tech savvy” and are exploiting control weaknesses in IT systems to perpetuate fraud.

Modern day Fraud is hidden in large data volumes, making it difficult to detect by manual spot checks

Technology as drivers for fraud detection and investigation

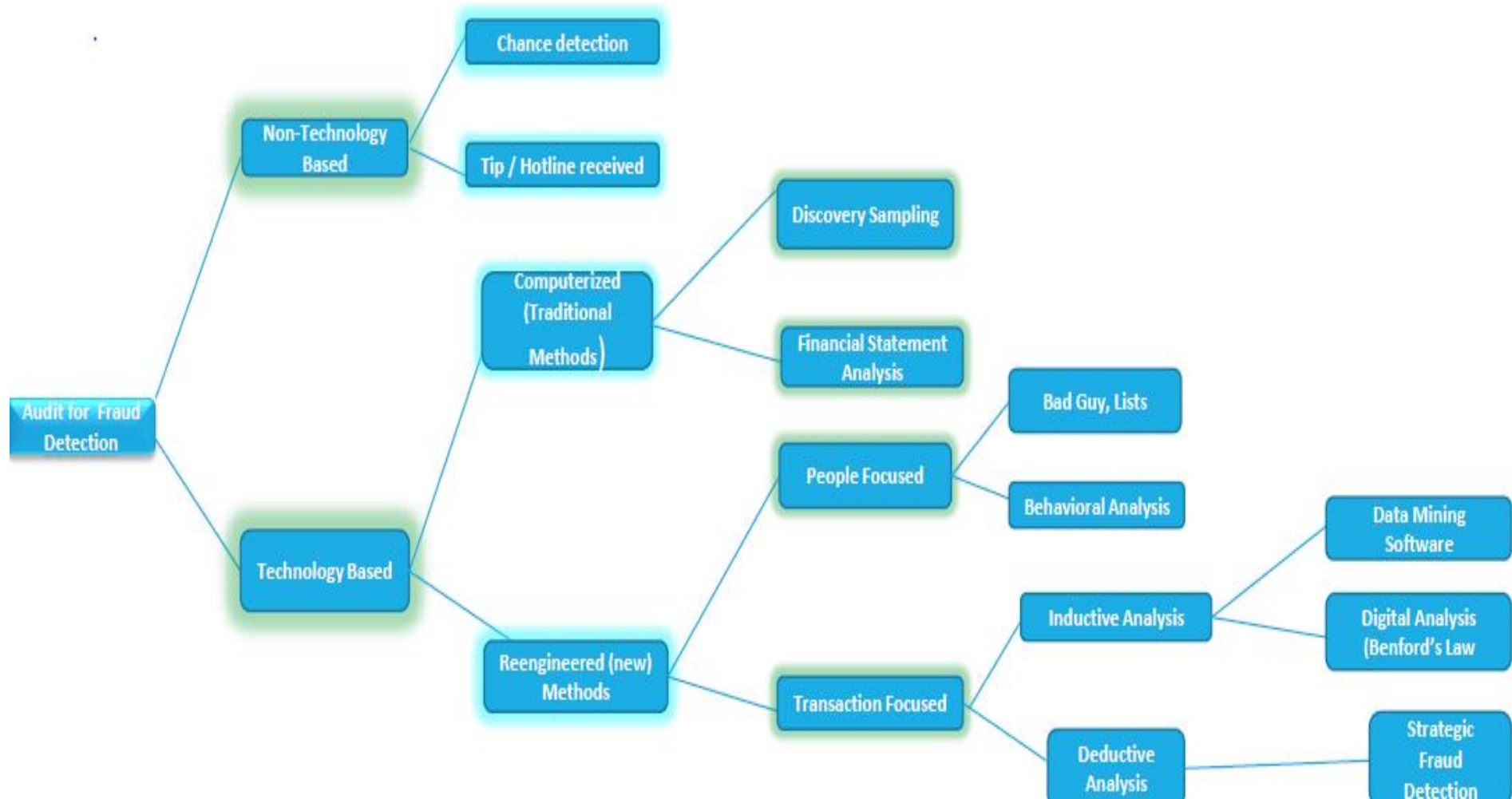


However, organizations have not capitalized on these changes and proactively monitor business data, analyze it for use in early warning, detection and monitoring of fraud.

The Big Data



Technology as drivers for fraud detection and investigation



IT tools and Techniques



Examples of data mining and Analysis software.

1. CCTV
2. Disk Imaging software

- Encase
- Forensic Tool Kit



3. Spread Sheets

- MS-Excel



4. Audit Software

- IDEA
- ARbutus
- ACL



- IBM

IT tools and Techniques



ACL -<http://www.acl.com/products/>

Desktop - "traditional" data analysis tool with various file interoperability, built-in analysis functions, and custom-language scripting / automation abilities

Exchange - data feeds, functions with custom parameters, documentation acquisition and storage, Microsoft Office integration, and data exception identification and workflow

Acerno- Excel Add-In for results analysis

IDEA -<http://www.caseware.com/products/idea:> Data analysis tool with various file interoperability, built-in functions, and custom-language scripting / automation

Active Data/ Active Audit-Excel Add-Ins for data analysis similar to IDEA and ACL

Search Websites

Craigslist / EBay search: <http://www.searchtempest.com/>

Person or Company profiling: <http://www.zoominfo.com/>

Address or Phone search: <http://www.zabasearch.com/>

Social Media search: <http://www.kurrently.com/>

Blog Search: <http://technorati.com/>

IT tools and Techniques



Data analytics;

1. *Trend analysis*- Comparison of same period numbers such as suppliers, customers, employee, over time.
2. *Ration Analysis* unusual transactions represent a deviation from the norm.
3. *Duplicate transactions*- unique identifier values such as invoice numbers, sequential,

IT tools and Techniques



4. Even Amounts examine even amounts, rounded-off numbers

5. Outlier amounts- discovering data values that are outside the normal course of business.

6. Benford's Law nature produces more small things than large things, businesses produce more transactions with small amounts than with large amounts.

IT tools and Techniques



Data analytics;

- 1. Track and trend reports on fraud and business misconduct.*
- 2. Interpret and benchmark your company's data.*
- 3. Application of data to enhance components and deliverables of the anti-fraud
program*

Using Data Analytics for Fraud Auditing



Using Data Analytics for Fraud Auditing



Why data analytics? Red-flags-

- *Improved efficiency*
- *Repeatable tests*
- *Wider coverage*
- *Early warning*

Using Data Analytics for Fraud Auditing



Standard Tests

Common fraud indicators translated into knowledge and experience used to develop analytic tests to detect potential instances of fraud.

Customized tests

Customize analytics tests to suit for specific needs of an organization, based on unique/ known issues, key risk areas and data available.

Using Data Analytics for Fraud Auditing



Data analytics in Fraud Audit

- ” *Fraud test definition* . Identify and define fraud indicators to test based on business rules, experience and known fraud schemes.
- ” *Data identification and extraction* -Which IT system store data required. Extraction of this data to be done in a controlled environment. Formal request of data prior to audit

Using Data Analytics for Fraud Auditing



- “ *Data cleansing* Clean the data, convert to a format suitable for analysis. Import into analysis software for test execution.
- “ *Data analysis* fraud tests interpretation, suitable technical data tests and analysis by use of data interrogation techniques to identify unusual trends, data anomalies and control lapses.
- “ *Reporting and monitoring* Generate reports, business focused, easy to understand, summarized results, data insights. Re-perform of these tests on a periodic basis

Using Data Analytics for Fraud Auditing



What could go wrong when using data analytics?

1. *Data quality*
2. *Data volumes*
3. *Data security*
4. *Skillsets*

Interactive Session



Interactive Session



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