The Chamber of Tax Consultants
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Data Analytics for Fraud Detection

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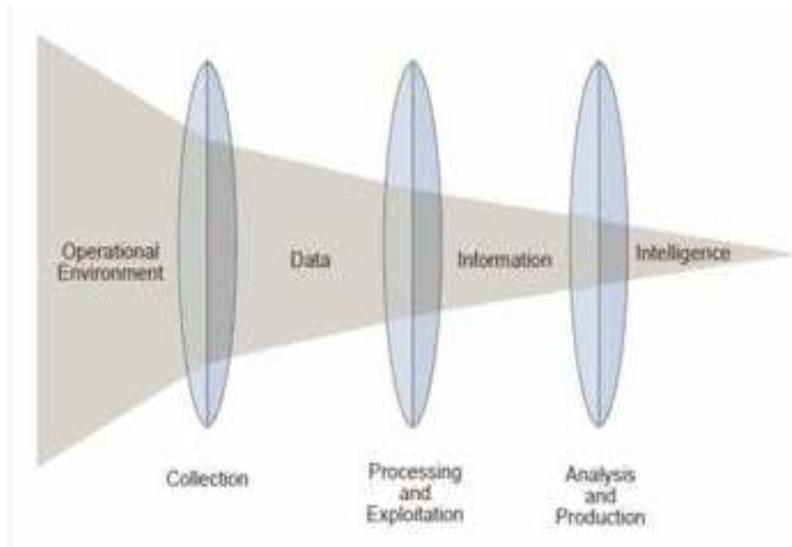## Director – Sama Audit Systems and Softwares Pvt. Ltd.

Presentation Line Up

- Presentation Premise
- What is Data Analytics
- Data Analytics - Why
- What is IDEA Software
- IDEA in Few Clicks
- Revolutionary Features in IDEA Software
- Benefits of IDEA Software
- Key Clients in IDEA
- Drivers for Implementing Analytics
- Use of IDEA in Fraud Analytics
- Examples of Functional Application
- Way Forward

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Audit Analytics - Premise

Analytics is not a "nice to have," but a "must have"

Operational Environment → Data → Information → Intelligence

Collection — Processing and Exploitation — Analysis and Production

"Information is the oil of the 21st century, and analytics is the combustion engine."

"Things get done only if the data we gather can inform and inspire those in a position to make a difference."

"The goal is to turn data into information, and information into insight."

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What is Data Analytics

- Data Analytics is the use of raw data to produce insights or conclusions that can be acted upon.

- Fact-based decisions employ objective data and analysis as the primary guides to decision making.

- Role of the analyst is to get the most objective answer through a rational and fair-minded process, one that is not colored by conventional wisdom or personal biases.

Data Analytics – Why?

- Better Strategic Decisions – Analytics will help you make sense of the impact of imponderables.

- Enhanced Ability to Take On Problems Head On – Analytics demystify the cause, let alone treat the symptoms.

- Streamlined Processes – Analytics structure decision making within Processes.

- Anticipating Game Changing Risks – Analytics provide a compelling early warning mechanism.

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What is IDEA Software

- Powerful, Versatile and Scalable Audit and Fraud Analytic Tool

- Plug and Play Software with Easy to Use Audit Features designed by Auditors for Auditors

- Effortlessly imports data from multiple applications/databases.

- Seamlessly analyses the imported data to reveal control failures and red flags for timely management control reporting and action.

IDEA in Few Clicks

Effortlessly import your records—from virtually any source

View a graphical or tabular history of all actions performed in a project

Easily access, save and share files

Detect errors and discrepancies in data

Access online tutorials, free scripts and add-ons, expert and community help and more through IDEA Passport

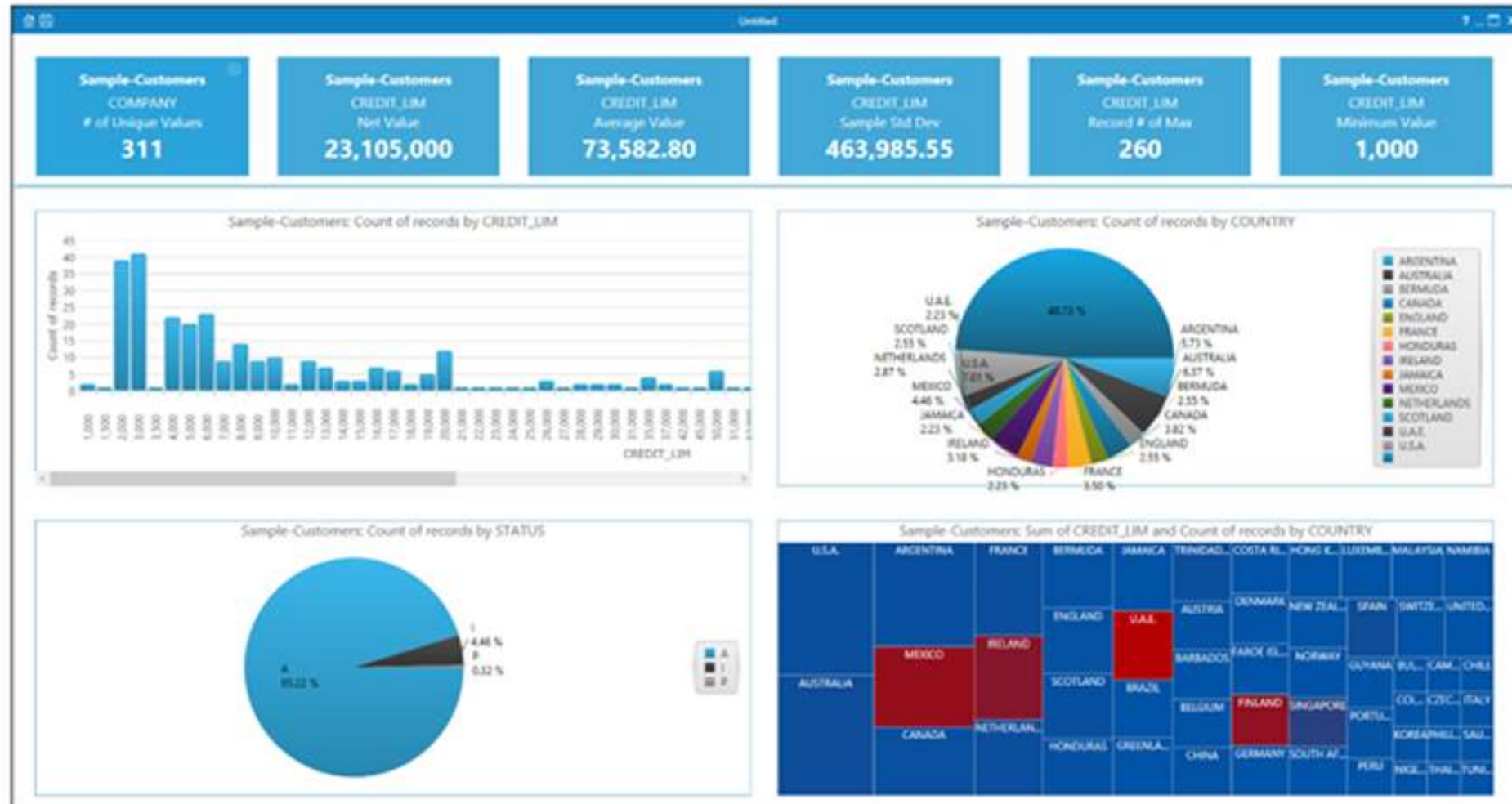Perform a wide variety of analytic tasks, including data summarization and stratification

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Revolutionary Features in IDEA Software

- ✓ Filter and Extract

- ✓ Categorize and Profile

- ✓ Merge, Match and Reconcile

- ✓ Sample

- ✓ Track Duplicates and Observe Gaps

- ✓ Trend Analysis

- ✓ Chart / Graph

Visualization

Benefits of IDEA Software

- In-depth review of process generated data rather than traditional sample checks which is ineffective and inefficient.

- Ability to reveal surprises and insights which the Client Management never knew about – true value add.

- Possibility to go beyond controls and focus on cost saving and revenue maximization.

- Concurrent use of Data Analytics in Audit significantly reduces compliance costs.

- Framework to automate complex MIS reports through Macros.

Our Clients

Drivers for implementing Analytics

- ✓ Maturity and Stability of business process applications

- ✓ People oriented repetitive audit work

- ✓ Cost and availability of qualified audit personnel

- ✓ Budgetary pressure on audit departments

- ✓ Complexity of business transactions and increasing risk exposure

- ✓ Scale and scope of audit procedures & data volume

- ✓ Timeliness of audit results

Use of IDEA in Fraud Tracking

Methods adopted	Examples of failures detected
Exception analysis	• Loans sanctioned at rates lower than the existing borrowing cost
Trend analysis	• Sales executive productivity across months
Volume analysis	• Number of receipts cut by an executive on the last day of the month
Variance analysis	• Increase in vendor level average payments (RSF analysis)
Duplicate analysis	• Payments made more than once for the same invoice submitted by the vendor
Split transactions	• Individual vendor invoice split into two or more to circumvent approval limits
Data reconciliation	• Fund transfer payments processed as per ERP vs. fund transfer advise sent to banker.

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Case Studies
Control Objectives – Payables

- Duplicate Bill Processing – Exact and Fuzzy

- Delay in Bill Processing or Advance Bill Processing

- Bill splitting to circumvent internal approval limits

- Two-Way mismatch between Order and Bill amount

- Mismatch in Bill Payee and Cheque Payee

Case Studies
Control Objectives – Travel

- Most frequent traveler – Business, Department

- Same date same employee different city travel

- Travel reimbursement outlier analysis

- Corporate card spends on prohibitive items services

- Weekend travel and non business city travel

Case Studies
Control Objectives – Inventory

- Duplication of inventory item codes

- Slow moving / non-moving inventory

- Wasteful procurement of inventory

- Item wise inventory holding in days trending

- Inventory valuation checks

Case Studies
Control Objectives – Procurement

- Same item same date same location different buy rate

- Blacklisted vendors made active

- Wasteful procurement of material which are lying unused for over 'x' days

- Items bought without inviting multiple bids

- Tender Cartelization

Case Studies
Control Objectives – Expenditure

- Expense trend analysis to identify outliers

- High value or duplicate or round sum expenses

- Expenses with blank or non-standard narrations

- Expenses with prohibited words

- Location scheme function wise actual over budget overruns

Case Studies
Control Objectives – Payroll

- Identify employee welfare payments after retirement

- Non deduction of mandatory deductions from salary

- Correlation between overtime and production

- Inadmissible allowances/deductions applied

- Potential fictitious employee tracking

Way Forward

- Auditors need to establish their technology blueprint for success before making any major investments.

- Technology is a facilitator for better risk monitoring.

- Audit and Fraud Analytics are core elements in the audit continuum that can be optimized through Technology.

- Application of the Maturity Model – focus on directional aspects, not absolutes – "Adapt while you Adopt".

Way Forward… Cont.

- Technology creates an environment for transparent conversion of audit issues to reportable areas of value

- Data Analytics in Audit creates an environment of discipline making preparation for peer reviews and quality certifications convenient.

- Imparting training for every audit staff member is imperative to gradually rising up the technology maturity curve.

Our Value Proposition

- Specialist Team of Professionals with both Audit and IT expertise.

- Diverse, consistent and valuable successful track record of implementations over 15 years.

- Deep client connect and engagements through User Conferences, Open Enrolment Programs, Online Blogs, User Speak Videos, Newsletters, Open House Sessions, Onsite/Offsite Support and Speciality Events (Canadian High Commission – New Delhi)

- Guide every client to a sustainable and realistic payback on investment.

- Work with clients to help them advance confidently along the Capability Maturity Model for Data Analytics.

- Encourage and facilitate user networking both across industries and within industry specific groups.

- Author and release regular publications on Internal Audit, Risk Management, Fraud Investigation, Data Analytics, Continuous Auditing and allied topics for benefits of users specifically and the audit/business fraternity at large.

- Preferred Faculty on Audit and Data Analytics at leading Academies in India - ICAI, IIA, NADT, INGAF, iCISA, CENTRAD, NIFM, NACEN, NABARD, NIBM, NIA.

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Thank You

Questions

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