FINANCIAL AND ENTERPRISE DATA ANALYTICS

EFFICIENTLY AND EFFECTIVELY MANAGING LARGE SETS OF FINANCIAL, OPERATIONAL AND TRANSACTIONAL DATA.
FTI Consulting is a leading global business advisory firm dedicated to helping organisations protect and enhance enterprise value in an increasingly complex legal, regulatory and economic environment. With over 4,200 employees located in 26 countries, FTI Consulting teams work closely with clients to provide comprehensive solutions for the most complex business issues. No matter how challenging or complex the assignment, clients benefit from the firm’s extensive experience and knowledge.

The Financial and Enterprise Data Analytics (FEDA) practice within FTI Consulting delivers strategic business solutions to clients requiring in-depth analysis of large, disparate sets of financial, operational and transactional data.

Our professionals – respected experts in technology, finance, forensic accounting and law – map relationships among various systems and geographies, mine for specific transactions and uncover patterns that may signal systematic issues.
FTI Consulting is an advisor to 55 Fortune 100 corporations and the world’s top 10 bank holding companies.
CHALLENGES OVERCOME

We possess the experience and tools to mitigate risk and provide insights into complex legal and regulatory issues.

The falling cost of data storage and the increase in corporate IT infrastructure investment has resulted in a “Big Data” explosion. It is estimated that between the years 2010 and 2015 the amount of information managed by enterprise datacentres will grow by 50 times to around 8,000 exabytes.

Information has become one of the most valuable assets of any business today. The growing number of differing data sources maintained throughout the enterprise present challenging issues for management to consider. Simply reviewing documents and email alone is no longer sufficient for understanding data. The careful analysis of various complementary information sources, including financial and operational data, is necessary to understand the bigger picture. Email is often used to memorialise who knew what and when. Financial and transactional data demonstrates the magnitude of the actions and provides insight into how they took place.

FTI Consulting has long been the premier provider of traditional discovery services for the legal and compliance marketplace. Our FEDA practice has leveraged this expertise to understand and analyse information stored in transactional databases throughout the enterprise.
OUR EXPERTISE

Our professionals are highly-skilled in conducting complex, data-intensive analyses and investigations focusing on lawsuits, government/regulatory investigations, insolvencies and other matters requiring the collection and analysis of large amounts of data, complex modelling or information sharing. Our team’s ability to identify the relevant data within an organisation, and our extensive experience with various technical tools that manage, analyse and present large data sets provides our clients with the most robust capabilities in the industry.

Accurate understanding of transactional data, whether from an Enterprise Resource Planning (ERP) system, a transactional system or any other operational data source, allows FEDA to model and design appropriate solutions for its clients to solve even the most complex problems.

The depth of expertise with varied structured data sources allows our FEDA team to efficiently and effectively acquire, normalise and validate data from many sources. Examples of those sources include:

- Oracle Financials
- SAP
- PeopleSoft
- SAS
- Great Plains
- Hyperion
- Lawson
- King Dee
- JD Edwards
- IBM
- SharePoint
- XML messages
- JAVA
- .net
- HTML web pages
INDUSTRY EXPERTISE

Our firm’s FEDA practice has proven expertise in providing our consulting services to many different industries, including:

- Automotive
- Construction
- Consumer products
- Energy and utilities
- Financial services/banking
- Insurance
- Manufacturing
- Pharmaceuticals
- Private equity
- Retail
- Telecommunications
OUR SERVICES

FRAUD DETECTION AND INVESTIGATION

FEDA’s fraud analytics relies on customised methodologies to suit a particular investigative need and is based upon a large analytics library of possible fraud indicators. Our team is able to apply extensive fraud analytics techniques in a number of contexts, including:

• FCPA and U.K. Bribery Act review and monitoring
• Anti-money laundering investigations
• Transactional and operational due diligence
• Regulatory response coordination
• Employee and vendor fraud

CLIENTS IN FOCUS

• Engaged by a Fortune 500 multinational firm to assist in its response to a Foreign Corrupt Practices Act (FCPA) investigation. We analysed the firm’s transactional data to support the response and defence of these allegations, and to design and execute a risk assessment of its subsidiary entities.
• Engaged by the Hong Kong Department of Justice to provide expert witness testimony regarding alleged money laundering activities of a Hong Kong businessman. We processed and systematically standardised two years of statements from over 50 separate security accounts to provide insight into the overall performance across the individual’s entire portfolio, including consolidated views of his trading, profitability and cash positions.
• Retained by external counsel of a major Chinese telecommunications firm accused of violating U.S. sanction laws. We collected and processed data from the firm’s multiple disparate systems to determine the extent of such violations, if any, in order to support external counsel’s response to the U.S. government.

DATA ANALYTICS

Our team possesses a deep knowledge of most major ERP systems and vast experience dealing with customised proprietary systems. We leverage a number of advanced analytical software packages to join disparate data sets into a single repository. This allows us to design and perform customised analyses to identify trends, patterns and outliers to address our clients’ needs. Whether the source is physical (i.e. paper), a structured electronic repository or web based, FEDA professionals can extract the relevant data and utilise it in a meaningful way, including:

• Identifying, extracting, and reconciling financial data
• Designing and implementing database systems
• Comparing or merging data from disparate sources
• Developing data review methodologies and processes
CUSTOM WEB APPLICATIONS

Our professionals have experience developing custom web applications in which the client and other third parties can view, monitor, manipulate and report on mass amounts of data from a flexible user friendly interface. Utilising tools such as PHP, JavaScript and many open-source frameworks to host, secure and present data, these web applications can be used for structured data review, ongoing compliance monitoring or simple C-suite or operational presentations and reporting of analytics. This solution allows for cost-efficient and easy global access to data.

VISUALISATIONS

We produce easy to understand but detailed visualisations from complex data sources, facilitating and simplifying data analysis, data mining and identification of anomalies. Visualisation of complex information tells the story of the data in an easy to understand graphical format. The FEDA team uses several software programs to create these visualisations, including Tableau, i2 and proprietary FTI Consulting tools.

STRUCTURED DATA DISCOVERY

Our professionals specialise in the collection, processing, analysis and production of structured data sets. Our proprietary web-based platform enables your team to efficiently review, code and redact structured databases for litigation and regulatory compliance.

CLIENTS IN FOCUS

• Developed a data warehousing and reporting solution for a billion-dollar private healthcare company to address numerous operating and compliance issues. We unified multiple data sets into a central warehouse and created a data visualisation platform to support real-time data analytics.
• An international hospitality company required assistance in upgrading its financial reporting system to provide accurate, timely reporting in a flexible format. We collected and analysed historical data, integrated data into a new database system and created dynamic reports.
• A large automotive company faced significant liability exposure from a multi-jurisdiction litigation resulting from an issue with its customer vehicles. As part of the investigation, we acquired and analysed numerous large enterprise datasets from the client’s internal IT systems to identify responsive transactional data. Using our proprietary web-based application, these structured data sets could be searched for key terms, reviewed for relevance and redacted for confidential information.
“No longer can the tools of yesterday be used to resolve the issues facing us tomorrow.”

Robert Brunner
Senior Managing Director
Global Head of FEDA
OUR TEAM

Our Hong Kong-based team is proficient in a wide range of languages and includes professionals from an array of backgrounds covering many industries.

Our professionals have extensive experience conducting fraud investigations, regulatory compliance, dispute resolution, system controls and audits, risk review, valuation, data discovery and data forensics.

We have the critical combination of business, legal process and IT knowledge to bridge the gap between the key players in an investigation, litigation or complex situation.

Our team’s specialities include:

- Ability to process financial, transactional and operational data used in litigation, fraud/theft investigations, FCPA/anti-bribery violations, patent and copyright infringement, product liability and group litigation. This includes the ability to develop financial models.
- Data analysis of the relevant transactional data, and electronic review capabilities to collect and share information securely via the internet among all interested parties in a centralised, cost-effective fashion.
- Full-scope discovery of electronically stored information relevant to law suits or regulatory inquiries, such as:
  - Traditional unstructured e-discovery (email, file shares, servers, etc.)
  - Enterprise structured data (trading systems, treasury systems, G/L systems, etc.)
  - Industry-specific data (Bloomberg Communications, SWIFT Messaging, etc.)
- Identification, collection and hosting of bank SWIFT messages. This can be in response to compliance failures, whereby we can assist in screening/reviewing problematic transactions.
- Ability to build customised, cost-effective tools and web apps for data analysis, searching and review.
- Web-enabled claims management to establish a process of responding to potential claims and performing confirmation and calculation of damages in a centralised electronic environment.
- Extracting data from online social networks (e.g. Facebook, Twitter, blogs) and performing complex data visualisations.
- Development of customised visualisation tools to facilitate real-time financial reporting and analysis.
CASE STUDIES

FRAUD ANALYTICS FOR LITIGATION AND DISPUTE RESOLUTION

FTI Consulting has been retained by the court-appointed Securities Investor Protection Act (SIPA) Trustee in the liquidation of Bernard L. Madoff Investment Securities (BLMIS), the largest reported Ponzi scheme in U.S. history. FTI Consulting is providing the Trustee with forensic accounting, complex financial and enterprise data analytics, document management and econometric analysis/expert witness services. Our multidisciplinary team, including experts in electronic evidence, data analysis, forensic accounting, security trading and fraud investigations continue to assist the Trustee’s counsel with requests relating to a myriad of litigation and forensic activities provided by the Trustee, counsel to the Trustee, the Securities Investor Protection Corporation (SIPC) and various international entities such as the liquidator in the UK.

The complexity and size of the fraud required the analysis of a massive amount of information and data. FTI Consulting performed the extraction, transformation and loading of multiple data sources in order to develop complex financial analyses with user-friendly reporting capabilities (including both database management and document storage management solutions). Our team developed and executed numerous complex analyses to support the investigation and legal actions brought by the Trustee. We developed a systematic process and model to trace funds through a web of related accounts within the BLMIS customer population in order to generate the Trustee’s calculation of each individual customer account’s “Net Equity” balance.

In conjunction with the massive amount of document review, the structured data analytics team added significant value to the overall case by identifying and reporting on indicators of fraud (red flags) that have been used in multiple litigations. In addition, our team analysed the BLMIS computer systems, reviewed system code and reconstructed certain system functionality. Finally, through identification, processing and normalisation of several terabytes of structured data from the proprietary systems, back up tapes, paper documents and microfilm records, our FEDA and investigative teams successfully recreated over 25 years of books and records.
FTI Consulting has assisted a major global financial institution perform a review of historical transactions, over a period of several years. The focus was centred on transactions which potentially involved trade with sanctioned individuals or companies, as defined by the U.S. Treasury office (Office of Foreign Assets Control OFAC). FTI Consulting provided the client with document management/review, complex financial data analytics and global hosting services. Our specialist team of technology and financial data experts assisted the client to identify, collate, review and categorise questionable transactions in order to respond to the OFAC requirements. This involved locations across Europe, the Americas and Asia, and dealing with a variety of information privacy challenges. As such, this engagement required a combination of FTI Consulting’s Tier IV datacentres in the United States, the United Kingdom and Australia, along with in-country solutions.

International financial transactions are often actioned via the Society for Worldwide Interbank Financial Telecommunication (SWIFT). SWIFT offers a variety of solutions to everyday financial transfers, facilitated by their global messaging system. FTI Consulting performed the extraction, reconstruction and processing of over 100 million archived SWIFT message files, in order to offer a platform to perform a comprehensive transactional review. A variety of archiving processes and challenges resulted in the requirement to reformat many files into the ISO standard SWIFT formats.

The FEDA team developed a series of processes to assist the client during message extraction and screening; improving the efficiency and accuracy of previously applied techniques. We designed and implemented processes to reconstitute financial transactions by linking related messages through a series of embedded references. The client could then discount false positive connections, in addition to searching for missing messages. This solution utilised FTI Consulting’s industry leading review platform, Ringtail™, which was needed to host the entire message population and offer a wide range of searching and coding capabilities with inbuilt quality control. In addition, FTI Consulting provided the client with a scalable solution that could be implemented for a parallel global transaction review of this magnitude. As a result, the client was able to respond to the regulator within the imposed timeframes, while maintaining an extremely low error rate in the reports.
ABOUT FTI CONSULTING

When faced with critical challenges, organisations from around the world turn to FTI Consulting for our specialist skills and practical insights. FTI Consulting has extensive industry experience across Europe, the Middle East, Africa, the Americas and Asia Pacific in areas such as investigations, litigation, mergers and acquisitions, regulatory issues, reputation management and restructuring. With more than 4,200 professionals located across 26 offices worldwide, we provide critical thinking at the critical time™.

**CORPORATE FINANCE & RESTRUCTURING**
- Corporate recovery
- Interim management
- Investment banking
- Performance improvement
- Private equity advisory
- Restructuring/turnaround services
- Transaction advisory services
- Valuation & financial advisory services

**ECONOMIC CONSULTING**
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- Business valuation
- Intellectual property
- International arbitration
- Labour & employment
- Public policy
- Regulated industries
- Securities litigation & risk management

**FORENSIC AND LITIGATION CONSULTING**
- Compliance, monitoring & receivership
- Dispute advisory services
- Financial & enterprise data analytics
- Forensic accounting & advisory services
- Global risk & investigations practice
- Intellectual property

**STRATEGIC COMMUNICATIONS**
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- Corporate communications
- Crisis communications
- Financial communications
- Litigation communications
- Public affairs
- Strategy consulting & research

**TECHNOLOGY**
- Computer forensics & investigations
- Discovery consulting
- e-discovery software & services
FTI Consulting, Inc. is a global business advisory firm dedicated to helping organisations protect and enhance enterprise value in an increasingly complex legal, regulatory and economic environment. FTI Consulting professionals, who are located in all major business centres throughout the world, work closely with clients to anticipate, illuminate and overcome complex business challenges in areas such as investigations, litigation, mergers and acquisitions, regulatory issues, reputation management and restructuring.

For more information on our activities across Asia Pacific and how FTI Consulting can help your business, please contact

Brett Clapp  
Managing Director  
+652 3768 4729  
brett.clapp@fticonsulting.com

Robert Wren  
Senior Director  
+652 3768 4652  
robert.wren@fticonsulting.com

CRITICAL THINKING AT THE CRITICAL TIME™

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