Abstract
Infosys travel and entertainment analytics solution helped detect policy violations, corporate card misuse, personal spend, and the overall non-compliance for a global investment bank by analyzing millions of usually flouted or inaccessible transactional data points spread across enterprise data silos.
Our client, a publicly held global investment bank employs more than 13,800 people working from more than 50 office locations across 30 countries. Such a global scale of operations meant a large travel and entertainment (T&E) expense of more than USD130 million every year. Maintaining integrity and the highest corporate governance possible is paramount for such a large T&E spend to avoid any penal actions due to noncompliance to global anti-bribery laws and the US Foreign Corrupt Practices Act (FCPA). But analyzing millions of travel expense records to find noncompliant ones was a herculean task for the client’s reporting team as it was manual.

The undetected noncompliant records and manual analysis resulted in:

- **Monetary loss**: The company incurred a loss of approx. USD 90 K every year in the form of late fees imposed due to delay in expense claims, settlement and remittance to respective credit card accounts.

- **Funds misuse**: Funds worth USD 1.5 million were misused every year by employees who used their corporate credit cards for personal spending.

- **Additional burden of approved exceptions**: Every year, exceptions worth nearly USD 6 million were approved putting an additional burden on the T&E budgets.

- **Poor visibility of policy violations**: As there is no method available to track the outlier transactions, there was poor visibility on policy violations.

- **Too many reports**: Too many reports were generated, limiting the overall T&E health metrics and red flags visibility.

- **Unusually high turnaround time to resolve specific queries on reports**: Resolving report-related queries took longer as the data was spread across multiple silos in different formats.

- **Delays in remedial actions**: Noncompliance information was not available in time, given that the manual reporting process that took 7 to 10 days post facto, hence remedial action was delayed.

The challenge: Detecting noncompliant transactions involved huge manual effort with several inadvertent reporting errors
Our solution: A near real-time T&E metrics reporting including red flags, enabling proactive remediation of potential financial loss

Our team built a solution with the aim to address three key business needs:

1. **Provide a single source of truth:** By giving access to all dimensions of data for query resolution and drill down into specific noncompliance cases through an integrated database that combined four key source systems:
   a. **Travel systems:** Trip and transactions details, expense type classification taxonomy, policy guidelines, managerial and financial approvals of trip and expenses, and claims details
   b. **HR systems:** Employee data – specifically, spending limits and region-specific rules and policies
   c. **Travel Management Companies (TMC) data:** Expense amount and exceptional approvals data
   d. **Audit systems:** Current and historical data of audited transactions and employee responses to audit queries

2. **Ensure quick and near real-time reporting:** Real-time information is made available by automating data extraction, transformation and reporting through advanced data management tools such as:
   a. **ETL tool:** For automated extracting of required data from source systems
   b. **Database:** To create a single source of truth, enabling quick turnaround on specific queries

3. **Advanced visualization and analysis with proactive remediation:** This ensured visibility and was done by using:
   a. **Industry-leading visualization tool:** Used Tableau to visualize data thus offering intuitive reporting and facilitate a drill down to the required information depth
   b. **Visibility of noncompliance:** As soon as a noncompliance occurs, it is highlighted, thereby facilitating remedial actions to prevent further loss and risk exposure. As an example, when we find through data analysis that an employee has used his corporate card for personal spend, then our client recovers the same from the employee in that month, thereby reducing non-compliance and leakage
The outcome: Quick and accurate reports with actionable insights to mitigate potential risks

The outcome for one of the business units of the client organization for a particular month in FY2017 is detailed here.

Insights garnered with pattern analysis by bringing the data into a unified reporting dashboard:
- The US region reported four times (on average) personal spending just before the December vacation break
- Most of the personal expenses were related to airfare, customized by employees to suit extended personal stay while on business travel
- The post-vacation period (Jan-Feb) saw a sudden surge (4X) in corporate card late fees
- The frequently sought exception was for exceeding the daily amount for meals during travel and claiming the expenses beyond the three-month period

Remedial actions provided after analyzing the noncompliance:
- 66% of audit failures were due to either ‘Missing Receipt’ or claiming expenses through ‘Non-legible receipts’. We recommended adding a checkpoint in the current expense claim system to mandate the upload of legible receipts, thereby reducing 66% noncompliance

Accuracy ensured by eliminating manual data processing:
- ‘Out of Policy expenses’ were reported 11 times than actual – as an example, our automated solution helped report accurate numbers of USD 60 K which was reported as USD666 K earlier with the manual methodology
- 20% of the audit cases reported earlier were incorrect and were correctly reported with the help of a single data source
- We helped gain C-suite level acceptance of travel expense reports by ensuring 100% accuracy of the reported metric

Real-time red flag detection:
- 94% (~USD 80 K) of personal spend was made on the corporate credit card, resulting in inappropriate corporate fund utilization

Enhanced visibility by expense types:
- Reclassified transactions to enhance reporting accuracy. Infosys SMEs helped analyze incorrect expense classifications such as:
  - Service provider fees, which were classified as other ‘Fees & Charges’ instead of ‘Professional Fees’
  - Events related staff entertainment expenses were shown as ‘Staff Gifts & Entertainment’ instead of ‘Events’
  - Promotional expenses were classified as ‘Events Related’ instead of ‘Marketing’

Our T&E expense analytics solution has helped quickly identify policy and regulatory violations such as incompleteness, exceptions, and fraud. Automated monitoring has reduced turnaround time & costs. It has also reduced client’s T&E compliance pain by eliminating huge manual work while delivering deeper insights to manage the compliance effectively.

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