

Analytics in Action

Combating Credit Card Transaction Fraud

Client : A Credit Card Issuer facing high Transaction Fraud

Business Situation :

The Credit Card issuer was facing significant losses due to fraud in spite of having a real-time transaction scoring application. It flagged suspicious transactions and declined them with a large false positive ratio, leading to bad customer experience and attrition. There were also gaps in the process of identifying fraud with good accuracy due to constraints within the Fraud Operations group.

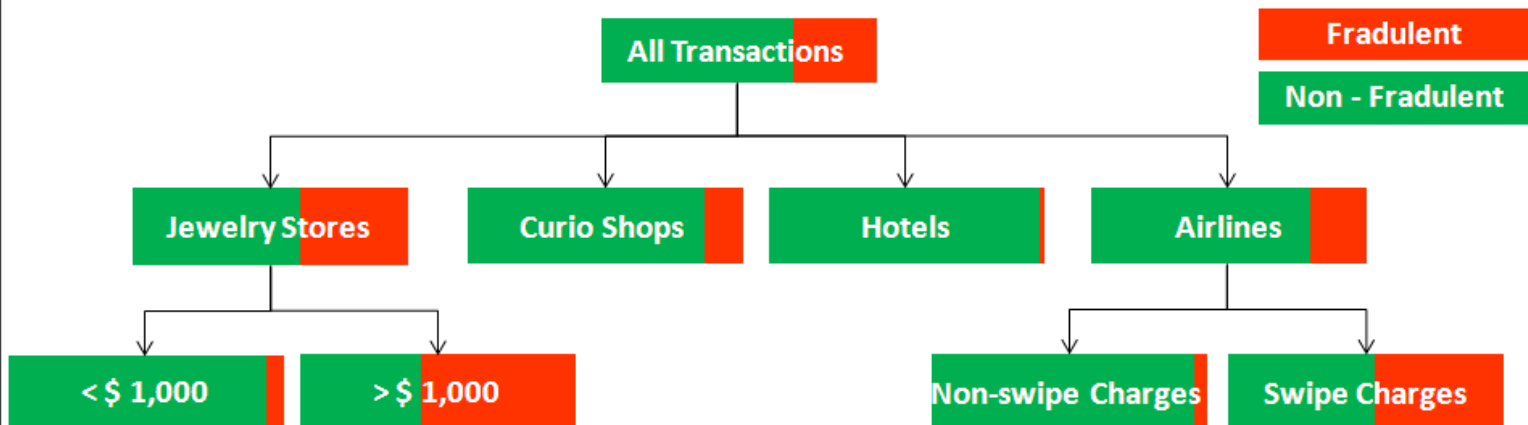
The Task :

- Develop optimized authorization rules that efficiently capture fraud with minimum impact on genuine transactions.
- Revisit the transaction scoring mechanism and suggest a methodology that is more customized for certain type of transactions. Retire non-performing authorization rules.
- Develop new strategies/rules to better identify fraudulent transactions.
- Measure 'agent performance' in Fraud Operations Queues and suggest areas of improvement to Fraud Operations.

Analytical Framework :

A 5-step analytical process was used:

1. Historical card transaction logs, data on confirmed fraud cases for the past two years, Credit Bureau data and Card Association notifications were leveraged for the analysis.
2. For Customer attrition analysis, accounts with a minimum 12 months-on-book at the time they were wrongly queued/declined were used, their attrition rates, were then measured using a test-control approach.
3. Apart from an existing real-time fraud scoring engine, further analysis was conducted to identify domestic and international fraud hotspots.
4. Detailed segmentation was carried out on recent transactions to segregate fraud population with least impact on non-fraud population – this led to new authorization rules.
5. Developed automated MIS reporting measuring existing rule performance, agent performance in Operation queues and a framework to retire non-performing rules.



The Result :

- Fraud Detection rates improves by 70 basis points Year-on-year after implementing the new scoring layer incorporating localised scoring.
- Fraud Operations agents false positives and false negative ratios (identifying true fraud and non-fraud respectively) improved significantly within 2 months of implementing Decision Quality framework. Missed dollar opportunity due to not identifying true fraud reduced by 15% Year-on-year.

About Marketelligent

Marketelligent provides data analytics-based consulting and outsourcing services that help you make smarter business decisions. The firm is backed by senior professionals with experience across Consumer focused

industries - Retail Banking, Consumer Packaged Goods, Consumer Retail, Telecom and Media. We offer an affordable global delivery model leveraging the best of domain expertise and analytic capabilities.

Management Team -



Roy Cherian - CEO

MBA – IIM Ahmedabad

- Over 18 years experience in Marketing, Advertising and Media Industry, a significant part in the Food and Consumer Packaged Goods industry
- Headed Marketing Services, Marketing Operations and the Chocolate and Confectionary business of Nestle India
- Pioneering work in Media and Marketing Mix Optimization



Anunay Gupta, PhD - COO & Head of Analytics

MBA – NYU Stern School of Business

- Over 11 years of international experience in Consumer Finance and Retail Banking
- Set up offshore Analytics capability for Citigroup. Managed \$145B portfolio for Citigroup US Cards. Leadership role in American Express Risk management
- Extensive experience in analytics, advanced modeling and predictive techniques



Issac Mathew - Head of Client Services

MBA – IIM Kolkata

- Over 10 years of experience in Information Technology Consulting in Retail, CPG, Supply Chain and ERP
- Part of the Cognizant US team which managed clients like Wal-Mart, 7-Eleven, Ace Hardware, AC Nielsen and HE Butt
- Head of the Business Intelligence practice at PricewaterhouseCoopers, Southern India

Our Clients -



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