



KNOCKING OUT THE FRAUDSTERS WITH ANALYTICS

Abstract

Jon Cushing, Director of Fraud Prevention at a US-based retail company, oversees fraud management across its in-store and e-commerce channels. However, his legacy fraud detection mechanisms proved inefficient in the face of complex, new fraud vectors and extensive policy misuse by employees as well as customers. This case details how Infosys BPM deployed an enhanced, omnichannel fraud detection system with transaction monitoring, live alerts, and proactive fraud analytics systems, leading to point-of-sale fraud recoveries worth over \$400k and \$2.5 Mn in annualised savings.



Breaches in the system

Jon Cushing is the Director of Fraud Prevention at a US-based specialty retailer offering apparel, shoes, and accessories. As part of his role in protecting the business from financial losses caused by fraudulent and foul activities, he is responsible for fraud detection and loss prevention across the company's hundreds of stores nationwide and on its e-commerce omnichannel networks.

Jon's fraud detection and management processes were being operated through

an offshore business unit. However, this structure made managing operations a challenge and Jon had been witnessing a rise in fraudulent activities that negatively impacted the company's profits. Both the offline and online sales channels were deeply affected by shrinkage, and faced extensive system misuse from the employees and customers. Moreover, the frauds occurring were complex and high-value in nature, putting Jon in a tight spot. With the rapid increase in the volume of frauds leading to a significant decline

in business profits, Jon decided to seek external support to help fix this situation.

And so, Jon sent out a global RFP in search of a business solutions partner to manage his fraud prevention processes. After receiving and reviewing multiple proposals, Jon signed on the dotted line with Infosys BPM. Soon he was in a meeting with Ashish Nayyar, the Infosys BPM team lead, giving a detailed brief, discussing the project scope, and explaining the complexities.

Changing the course of action

Assessing the checkpoints across the retail stores and e-commerce platforms, Jon and Ashish started charting out a plan to design and implement an enhanced fraud detection tool (process/strategy) across the two channels. They planned to deploy an intelligent solution that could not only monitor the checkpoints, but could also send out live alerts to mitigate and prevent any suspicious activities.

At this point, Jon was concerned about the impact of transitioning from his legacy tools to the new system, and the impact it might have on the fraud rates. Easing his concerns, Ashish and his team utilised an intricate and highly careful approach to ensure a smooth shift. They configured new processes by analysing live and historic data, and identifying fraud patterns. They then used the collected

information to design and implement tailored rules into the system. Finally, Ashish and his team created standard operating procedures to set up the new tools and defined the processes to use it for fraud detection.

Approach summary



The team launched their point of sale (POS) fraud monitoring support during the peak-hour holiday season before expanding to omnichannel fraud management. For the POS channels, they set up dashboards to identify spikes in suspicious activities, monitor velocities, and spot anomalies. They also implemented a robust alert management method to create and deploy anomaly reports based on quantitative and behavioural analysis, transaction data, and employee behaviours. Then, based on the findings, they ran campaigns to minimise losses and potential risk factors. Jon and Ashish also collaborated with local investigation teams for deep-dive analysis and actionable insights. In order to maintain a healthy, fraud-free environment, they created and monitored a watchlist, recommending policy or SOP improvements whenever needed.

Moving on to the e-commerce channel, they deployed a live transaction monitoring system to review orders and blacklist rejected elements. Utilising reactive analyses, the team carried out comprehensive investigations into various aspects of the online transactions including customer behaviour, chargebacks, returns, card verifications, customer inquiries, and validation of claims and disputes. Later, carrying out proactive analyses, they were able to identify patterns, and evolving customer behaviours through closely monitoring the high-risk customers, locations, and payment methods. Then similar to what they did for the POS frauds, they made several fraud mitigation recommendations such as for alerting stakeholders, training staff, mitigating emerging frauds, identifying process gaps, and suggested policy changes where needed.

Throughout, the designing and deployment of the fraud detection system, Jon and Ashish paid close attention to the efficiency of the design logic, so as to minimise both incorrectly cancelled orders and missed fraudulent orders. While missed out frauds would lead to revenue losses, incorrectly cancelled orders would lead to both a poor customer experience as well as revenue losses. To work around this challenge, Ashish and the team took extra care to note that the logic of the solution always rejected bad orders, accepted genuine orders, and referred suspicious orders for a manual review. Thus, the team made sure that they left no stones unturned, and no frauds undetected.

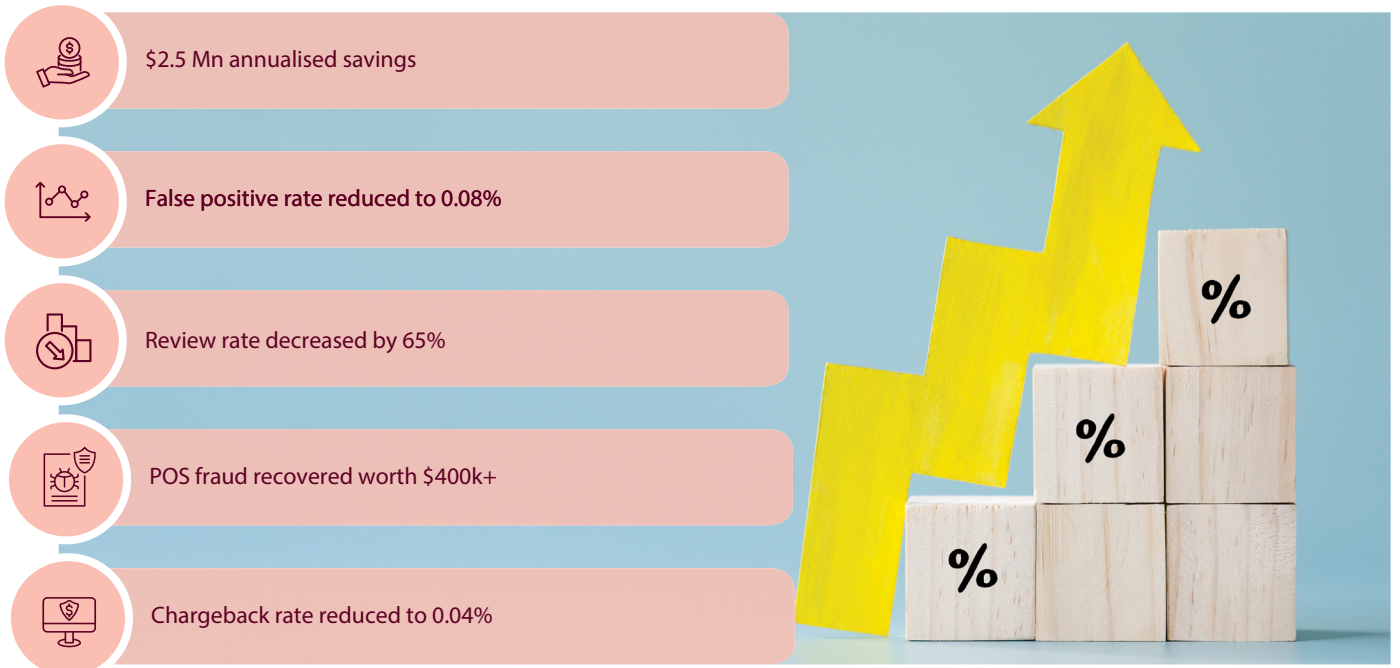
Winning the match and its medals

Ashish and his team's fraud prevention solutions proved to be a goldmine for

Jon. The enhanced solutions were hugely successful in detecting, rejecting, and

preventing fraudulent orders.

Key benefits



The team's careful approach helped the system balance between accepting and rejecting orders with precision. Consequently, the false positives rate was brought to a very low 0.08%, down from a previous level of 0.45%. Impressively, the system also significantly dropped

the review rate by 65%, and brought the chargeback rate down to 0.04%, much better than the industry standard of 0.5%. In total, over \$400k worth of fraud was successfully recovered at the retail stores alone, and all in all Jon was able to realise annualised savings worth \$2.5 million.

No wonder, he had glowing appreciation for Ashish and his entire team, as he praised their quick-thinking which enabled them to reject and reroute multiple fraud orders placed online. In addition, they were able to successfully block the fraudsters from attempting further frauds.

**Names have been altered to preserve the identities of the people involved.*

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