Designing Fraud Analytics and Operational Solution for the Holiday Period

Background & Challenges

Our client, a leading U.S. issuing bank, experienced a significant surge in targeted fraud attacks on their prepaid card portfolio during the holiday season. Fraudsters operated strategically, targeting various merchants across the United States. The client aimed to quickly identify and address fraudulent activity while minimizing the impact on genuine customers.

Objectives

- Develop strategies to identify sudden spikes in transaction volume or changes in customer payment behavior.
- Continuously monitor the prepaid card portfolio for anomalous activities.
- Identify and implement temporary blocks on affected merchants.

Approach

- We established a specialized fraud response team consisting of fraud analysts, fraud investigation specialists, and BI developers to identify and mitigate fraudulent threats quickly.

Solution Snapshot

Exploratory Data Analysis

- Identified and prioritized merchants experiencing high fraudulent activity in the past 24 hours.
- Developed a dynamic list of high-risk merchants for monitoring by the operations team.
- Analyzed historical repeat patterns and holiday/seasonal indicators of selected merchants to identify changes in transaction patterns.

Fraud Rule Creation

- Developed fraud rules to detect suspicious behavior (e.g., cumulative transactions exceeding a specified amount within a short period).
- Developed triggers to identify the onset of fraud activity (e.g., multiple failed transaction attempts within a short time frame).

Real Time Monitoring

- Continuously monitored transactions across merchants in the U.S. to identify potentially fraudulent activities.
- Blocked suspected cards showing sudden changes in behavior and prioritized them for reissuance.
- Temporarily blocked merchants experiencing unusually high transaction velocity.
- Identified significant events such as high-value, high-frequency, and transactions occurring away from home.

Key Results

$500K Net fraud savings achieved over a span of four weeks during the holiday season

200 Merchants & **30K** Cards blocked

Let's Connect

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