Uncovering More Employee Fraud Faster with AI

This regional department store chain offers its clientele apparel, accessories, shoes, home goods, and furniture online as well as in three store formats: standard department store, clearance center, and furniture gallery.

Situation

A department store wanted to learn more than its data was revealing and to prove the value of adding artificial intelligence (AI) to its analytics arsenal—starting with loss and shrink from employee fraud.

Solution

Secure™ Store Predicted Targets employee fraud models were tested to measure the results they could deliver beyond traditional EBR and determine its value to the organization.

Financial Results

- Reduced case investigation time by 25 percent.
- Flagged 25 percent more actionable cases worth hundreds to thousands in value.

Additional Benefits

- **Tell me what I don't know.** The retailer wanted to learn more from their data than their current processes and investigative tools allowed.
- **Preventive.** Identified more employees engaged in detrimental, non-fraudulent behavior for retraining.
- **Consistent results.** Artificial Intelligence aids novice and experienced users equally.
- **Do more with less.** All LP departments are being asked this question; this retailer was able to deliver.

APPRISS® RETAIL

Case Details

With the retail industry buzzing about artificial intelligence (AI), this retailer's leadership wondered what practical benefit AI would have on its operations today. To test its impact, they chose an area they already monitored extensively and which could quickly turn new insights into higher profits. That area was shrink reduction.

The company already used a traditional exception based reporting (EBR) solution. They partnered with Appriss Retail to test newly-developed machine learning methods that detect employee deviance without the use of traditional EBR queries.

To train the machine learning models, Appriss Retail compiled more than five years of historical transaction data and thousands of employee terminations that had resulted from investigations. Through testing, fraud-related terminations increased 25 percent above what EBR captured alone. Plus, it took 25 percent less time to track down the fraudulent activity within many of the cases. The following four cases are preliminary results. In each instance, the employees scored in the top one percent of the model, meaning the chance of fraud was extremely high.

> "In our testing, we saw more than a 25% increase in fraud cases identified and a 25% decrease in time required to track down the fraudulent activity within many of the cases."
>
> —Divisional Vice President, Loss Prevention

Case 1: An employee had other people make non-receipted returns for him/her so the employee's ID would not be recorded in the transaction. The employee also rang a return without receipt to his/her own credit card even though video footage showed that a receipt was present (as was a consumer with merchandise). The items were purchased at discount and returned at full price. The employee was terminated.

Case 2: A follow-up investigation showed an employee processed fraudulent refunds and gave merchandise to his/her friends and family. When interviewed for merchandise theft and refund fraud, the employee admitted to $387 of merchandise theft and refund fraud. The employee was terminated.

Case 3: The employee was identified for using store credits that he/she also issued. Additional investigation showed the employee retaining sales receipts that customers left behind and used them to process fraudulent returns. The employee admitted to $213 in refund fraud. The employee was terminated.

Case 4: Transactions with low sales amount but numerous line voids surfaced. A follow-up investigation showed the cashier and a co-worker line voided items in transactions for each other. At this writing, the investigation is ongoing to ensure all transactions are reviewed. However, in the five sales already identified, more than 36 designer clothing items were given out. The employee was terminated.

Results from the modeling effort at the department store chain show the value of using AI to identify employee deviance beyond what EBR alone can detect.

AR5012