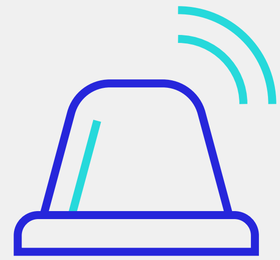
Selecting the Best Fraud Detection Model for the Business

ACI Worldwide
Real-Time Payments

Executive Summary

Sustained high chargebacks and order review rates are damaging to merchants and their customers. It is essential that merchants select the fraud detection model best suited to their business, the products they offer, their customers, overall risk resilience and their margin and resources. This paper explores and compares the benefits offered by pass/fail and manual review fraud screening models.



1 Definitions

A pass/fail fraud screening model instantly approves or rejects an order by relying on a real-time, multi-dimensional fraud decisioning engine. The pass/fail model does not hold up orders in a review state, and so minimizes merchant resources and customer friction.

A manual review fraud screening model places suspect orders in a review state for final determination. Merchants with manual review models need to appoint an order verification team to review transactions held in a fraud order management tool for final decision.

2 Effectiveness and Measurement

A pass/fail strategy is generally recommended for merchants experiencing low decline and chargeback rates, and higher false positive rates. Pass/fail models can help increase revenues by allowing orders to be accepted immediately that could otherwise be held up in a review state for long periods of time.

A manual review strategy, on the other hand, provides greater flexibility, allowing orders to be converted to sales by introducing a review of orders that carry greater risk, enabling a final decision to accept orders that might otherwise have been denied. This strategy also provides an opportunity for merchants to use existing resources outside the order review process and customer support — such as chargeback investigations and re-presentment — increasing the potential to recognize additional revenue without incurring additional costs.

When determining the best approach for a merchant's business, the merchant needs to evaluate a number of different components, including authorization costs, the costs of running its business, resource costs, chargeback costs and, finally, the impact of customer insults.

As a merchant evaluates, they must remember to:

- Monitor authorization decline rates, both at account level and transaction level
- Track decline rates due to fraud and business restrictions, and monitor at both account level and transactional level
- Maintain negative and positive lists to minimize declines from genuine consumers
- Observe approval rates for reviewed orders to see where changes are needed to the current risk strategy
- Evaluate fraud and chargeback rates on accepted or challenged transactions

Authorization costs

During the authorization process, merchants confirm that the card used for payment is in good standing. Each authorization attempt puts a hold on a cardholder's account and performing multiple authorizations can potentially damage a consumer's line of credit, so increasing customer dissatisfaction. Good practice for a merchant using a pass/fail model requires that transactions are submitted for fraud screening before initiating an authorization. This helps the merchant minimize costs related to bad authorizations (fraudulent attempts, bad cards) and also reduces potential customer service issues. When calculating the overall cost of authorization, merchants should consider the cost of payment processing and refunds as well as reversal costs.

Business running costs

There are certain costs that correlate with a manual review fraud screening model, such as the cost of a review team (irrespective of sales), cost of a call center, authorization fees, chargeback fees, declined sales and fraud solution expenses. When assessing the value of a pass/fail model, there are also costs related to chargeback fees and the fraud solution. However, merchants should evaluate the savings associated with not having a review team. If implemented correctly and efficiently, a pass/fail fraud solution can be significantly less expensive than a manual review model. As an example, if a merchant processes one hundred thousand transactions daily with a 2% review rate, or two thousand transactions for a decision, they will be spending, at a minimum, half a million dollars just in staffing costs.

Chargebacks and the costs of customer insult

To stop chargebacks from recurring when using a manual review model, the risk team can investigate certain behaviors and activity around chargebacks, by looking for common attributes. Connecting the chargeback to the original transaction can also help identify bad customers and fraudulent trends. Information found during chargeback investigations can be used as supporting evidence in chargeback re-presentment, when the merchant returns the chargeback to the issuing bank.

Rejecting legitimate orders can result in customer insults and may reduce the likelihood that customers will return and make future purchases. It is therefore still important with a pass/fail model to track incoming customer calls due to rejections and associate them back to the risk strategy causing a false positive for remediation. Identifying returning customers with good history can help prevent the merchant from erroneously denying good consumers. Effective risk strategies should have access to historical positive customer data for identifying genuine returning purchasers.

3 Communication and Strategy: Educating an Organization and Its Stakeholders

No matter which fraud detection model a merchant adopts, it is essential to provide effective direction and communication to internal management as well as stakeholders across the organization — and advisable to keep in constant communication with qualified eCommerce risk professionals. With the guidance of a professional, merchants should be able to track key performance indicators (KPIs) on a regular basis, helping to evaluate organizational success and assess the progress of a specific approach or strategy. KPIs are best constructed through internal discussions and planning between managers and the review team.

KPIs for pass/fail and manual review models
For a pass/fail model, these objectives should include monitoring accept rates, deny rates, chargeback rates and tracking incoming customer calls within the call center as false positives. When determining KPIs, it is essential to have a good understanding of what is important to the organization and also to review the current state of the business.

For a manual review model, KPIs will be measured and evaluated differently. A strong monitoring program that promotes strategic thinking is required. These KPIs can be reviewed against accept rates, deny rates, manual review rates, fraud missed with manual review, sales converted with manual review, chargeback rates and final disposition data.

Both models can be effective if tracked and analyzed through real-time dashboards inclusive of real-time decision, disposition and chargeback information.

4 Implementation Paths — Full, Partial and Hybrid

A hybrid implementation path is the combination of multiple fraud models working together, so offering the benefits of each different model. For example, the use of a pass/fail model primarily, but with a secondary dependence on manual review — or vice versa. A hybrid model provides flexibility by offering a compound solution to meet specific merchant requirements. This approach gives merchants the opportunity to rely on manual reviews at reduced levels by also incorporating a pass/fail strategy. Whichever approach is taken, merchants must be able to respond to internal and external demands, and deliver products in a timely and financially sustainable manner.

An experienced, qualified eCommerce risk analyst can manage exposure and assist merchants in meeting their goals through the application of a hybrid solution, a pass/fail fraud solution or a manual review model. Analysts will analyze fraud trends, create risk strategies and measure fraud model performance based on their industry knowledge. A risk analyst contributes perspective, knowledge and experience to help drive a merchant in the right direction for their business.A manual review fraud screening model places suspect orders in a review state for final determination. Merchants with manual review models need to appoint an order verification team to review transactions held in a fraud order management tool for final decision.

5 Use Cases Implementing a Hybrid Model

Use case 1

A retail merchant, with an eCommerce and mCommerce presence, sells products which include clothing, shoes, watches, jewelry, handbags and other accessories — and ships goods in the U.S., Canada, Europe and China. The merchant has a review team located within the U.S. implementing a manual review fraud detection model for orders originating from the U.S. and Canada. The merchant adds a secondary pass/fail model for all orders originating from Europe and China. The pass/fail model will support fraud prevention for transactions placed internationally, but also assist with the limited resources available in the U.S. to review orders. Language barriers, limited verification tools and time-zone differences are additional factors that were considered by the merchant before adopting the pass/fail model.

There is an increased cost associated with reviewing international transactions and this approach enables the merchant to reduce the risk of fraud internationally, limit the orders the risk team has to manually review and diminish the cost of maintaining the availability of the verification team for extended hours.

Use case 2

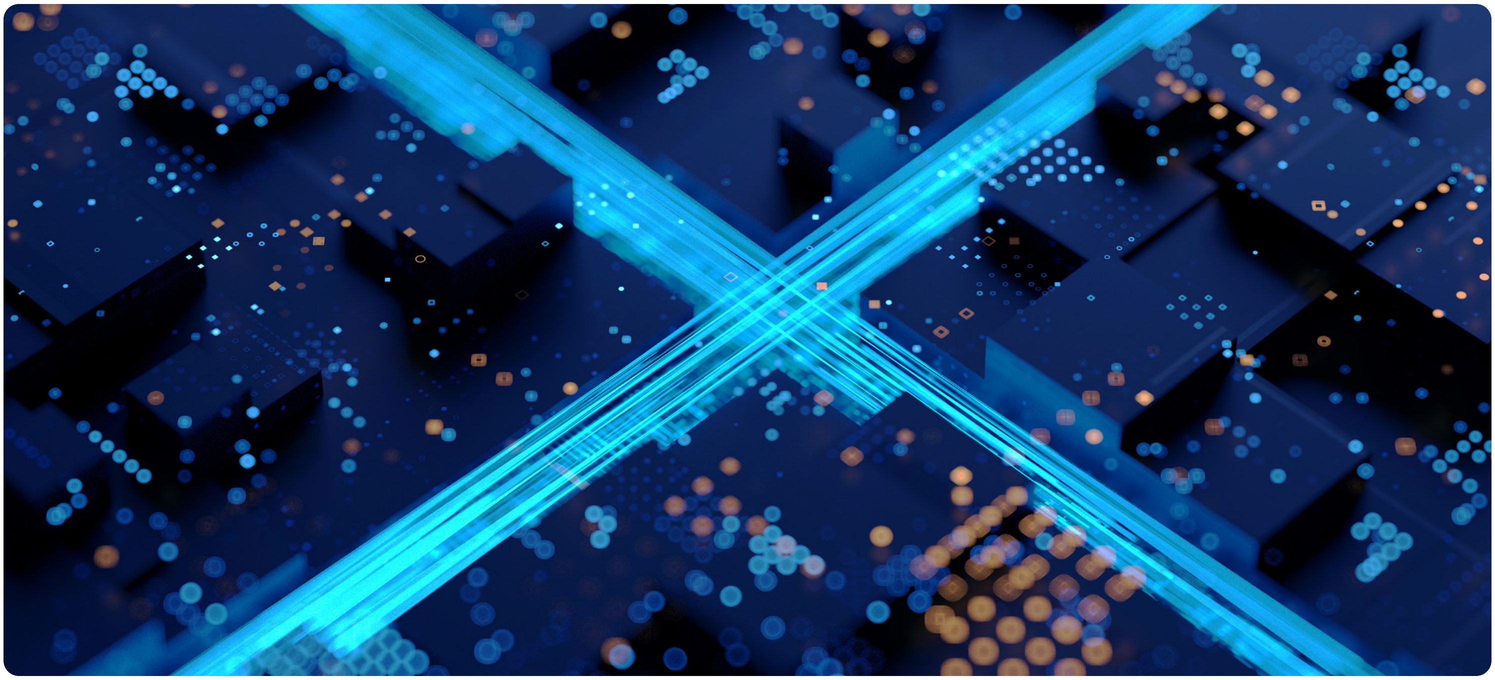
A merchant sells primarily electronic products — high-dollar tablets, computers, cameras, video players and mid-low dollar accessories (headphones, computer and phone cases, chargers, etc.) with very few resources available to review orders manually. Since there is lower risk associated with the mid-low dollar accessories, the company deploys a pass/fail model for all mid-low dollar orders placed, but adds a secondary manual review model for high-dollar orders. This allows the merchant to review orders at a reduced level, maximizing accept and reject orders for the mid-low dollar transactions.

Use case 3

A large business produces a variety of merchandise — apparel, home goods and electronics. The company has resources to review and disposition orders but, during peak holiday season, would not be able to hire additional staff. The merchant uses a manual review fraud detection model the majority of the time. During peak holiday season, the company anticipates a spike in volumes that the review team will not be able to manage. The merchant works with risk analysts to arrange a secondary pass/fail model for use during the holiday season. The risk analyst produces a specific risk strategy for high-volume hours and days, reducing the manual review rates, but also maintaining low chargeback and fraud rates.

6 Conclusion

An effective fraud prevention strategy is essential for online and mobile commerce — and requires assessment, evaluation and communication. Fraud losses due to the implementation of an inappropriate fraud solution can be very damaging. Through careful analysis and constant communication, merchants and fraud solution providers can operate a successful pass/fail, manual review or hybrid fraud detection model that will hold down fraud rates, increase revenue and decrease chargebacks.



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