

# Leading Latin American insurer increases model accuracy rates to 98% using Relativity6's proprietary algorithms.

## Challenge

A Latin American insurer with over \$1B in Direct Written Premiums was experiencing a steady increase in policy churn rates over time. Despite churn models created by their internal data science team, the insurer began looking for external solutions to improve customer retention.

The insurer enlisted our help to better understand:

- former customers who were likely to repurchase policies
- current customers who were likely to churn
- current customers who were likely to purchase an additional product.

Relativity6 set out to improve the insurer's retention rates by using proprietary cross-sell, win-back and retention algorithms, as well as an insurance product recommendation engine.

## Implementation

The insurer provided Relativity6 with an internal customer dataset from their Personal Auto, Health and Life insurance segments. The datasets included policies, claims, transactions, customer information, and product descriptions.

Relativity6 performed an exploratory data analysis, then pre-processed data sources, obtained data models and applied feature learning. We then applied proprietary machine learning algorithms to train win-back and retention models.

## Results

- 98% accuracy of win-back, retention and cross-sell models.

## Key Technologies used

- Feature learning
- Machine learning
- Cross-sell algorithm
- Win-back algorithm
- Retention algorithm
- Insurance product recommendation engine

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Purchase propensity predictions and product recommendations were then provided to the insurer in order to perform a phone campaign to cross sell and win back customers.

A confusion matrix and derived metrics (precision, recall and accuracy) were used to measure results of the campaign.

## Key Results

Relativity6's proprietary algorithms significantly outperformed previous statistical techniques used by the insurer. According to a confusion matrix of possible outcomes, the overall accuracy of the prediction models reached 98%.

Qualitatively, the director of the insurer's parent group's analytics department had this to say, "Relativity6 was quickly able to generate improved win-back and cross-sell results, which were impressively precise. Winning back customers and adding lines of insurance to existing customers will greatly impact our bottom line."

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## About Relativity6

Companies use Relativity6's Technology to improve customer engagement and to arm sales, marketing and service professionals with the tools needed to better serve their customers.

Relativity6 enables partners to better understand their customers' behavior with support from world-class PhD data scientists and machine learning experts from MIT.

Relativity6 employs compliance and technical processes to meet or exceed data security and privacy regulations across industries and across borders.

Relativity6 proprietary algorithms predict when and what your most profitable customers will purchase, with above 80% accuracy.

## Contact

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