

ANALYZING CUSTOMER CHURN USING PREDICTIVE ANALYTICS POWERED BY ARTIFICIAL INTELLIGENCE

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SalesChoice
Predict. Prioritize. Pace.

PREDICTIVE AI WORLD™ – AN EDUCATIONAL DIVISION



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OVERVIEW

In this white paper, we share our best practices and discuss combating churn by building predictive AI models that accurately identify and predict customer churn. Predictive analytics has become a promising backbone in translating millions of data patterns into meaningful and actionable insights, helping companies prevent customer churn before it occurs.

WHAT IS CUSTOMER CHURN?

Customer Churn is a term used for losing a customer. In its simplest form, churn rate is calculated by dividing the number of customer cancellations within a time period by the number of active customers at the start of that period. However, churn prediction is often needed at a more granular customer level. With customer churn rates as high as 30 percent per year in some global markets, identifying and retaining at-risk customers remains a top priority for all companies. Customers vary in their behaviors and preferences; this is where churn modeling is most useful.

CUSTOMER CHURN MODELING

Customer Churn modeling helps you identify which of your customers are likely to stop engaging with your business. The model refers to an algorithm that takes historical data of your customers and outputs a probability of churn or a cancellation for each customer. These are recorded and observed by the data scientist over a period of time, and helps build a stronger model.

THE PROBLEM

Significant sums are spent by companies to acquire a customer. When a customer churns or leaves, you lose business, thus impacting your recurring revenue. It's no surprise that the cost of acquiring a new customer is far more than retaining an existing one. Instead of spending so much on finding customers, what can we do to stop the churn? A McKinsey report estimated that reducing customer churn could increase earnings for a company by as much as 9.9 percent.

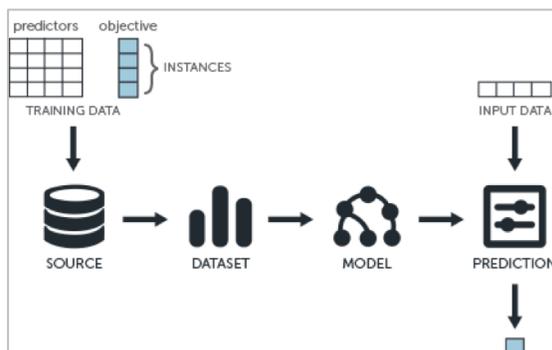
Source: <http://bit.ly/2CjNPcw>

OUR APPROACH

SalesChoice builds unique customer churn prediction and propensity models for our clients, wherein a customized and unique predictive AI model is developed for each customer analyzing historical service data over large periods of time, preferably over 2 years, minimum.

Valid historical patterns can enable creating a relevant baseline model for continued leverage in predicting customer churn. By determining a customer's propensity to churn, a company can focus on retention strategies and operational excellence programs to deliver customized service experiences, commensurate with the organization's customer loyalty and retention strategies.

Figure 1.0 – The Approach



Source: <http://bit.ly/2lk88wE>

OUR PREDICTIVE CHURN METHODOLOGY

I. *The Data Sources:* First, a client's historical customer service data is collected and analyzed over a period of time by a team of data scientists at SalesChoice.

II. *The Data Science Methods:* The broadest approach to churn modeling includes machine learning techniques such as Decision Trees (rpart), Random Forests and Support Vector Models. These are widely used due to their high performance and ability to handle complex relationships in data. For an advanced approach, techniques such as Gradient Boosting and Xgboost methods are used.

III. *The AI Predictive Model:* A personalized AI predictive model is developed with select parameters that construct a robust feature set with information that is predictive of a churn event. While estimating the model accuracy, it is imperative to choose the correct metric and the right validation dataset to train the model on.

IV. *Findings and Observations:* Key patterns and attributes underlying the Predictive model are identified, that derive accuracy in predicting a customer churn in the model. Further, actionable insights are triggered to reduce the predictive churn gap in the client's customer data-set.

V. *Results Validation:* It is very crucial for the results to be validated, wherein further alignment takes place.

Figure 2.0 – The Proposed Solution



PREDICTIVE CHURN USE CASE

We recently worked with a global manufacturing imaging solutions company's data-set of customer service history. This company has a major global footprint with over 10,000 employees and a large set of customer base. The customer churn rate was high, and this was impacting their recurring revenue.

SalesChoice was provided access to three years of customer service data history where over 6,477 customer service history records were analyzed, resulting in 730 churn observations and uniquely identified 42 significant churn variables. A customized and unique predictive AI-model was then developed over a six-month period, creating a powerful baseline model that was able to predict customer churn at an overall accuracy of 90%.

CONCLUSION

Every company globally developing customer service programs needs to have a line of sight to predict customer churn to reduce costs of non-conformance and ensure customer loyalty & remain competitive.

Early signals from AI and Machine Learning are very powerful and uncannily accurate. Our data science team at SalesChoice continues to explore the intricacies of churn modeling to accurately measure when and why your customers churn.

SalesChoice Insight Engine™ is an Artificial Intelligence (AI) driven sales forecasting platform that predicts outcomes reliably at up to 95% accuracy.

Benefits

In an age where 40%-60% of sales professionals are wrong in predicting accurate sales forecasts, driving huge negative impacts on a company's financial performance, our software reduces your forecasts risks by predicting sales and churn much more accurately.

Insight Engine™, SalesChoice's Artificial Intelligence (AI) forecasting solution for your CRM, tells sales leaders whether they are at risk of not meeting the numbers in any chosen time period while allowing them to run a What-If analysis to explore how the prediction changes with change in target quota. The software forecasts which opportunities are most likely to be won or lost with up to 95% accuracy, while guiding account executives on accurate close date estimates and on controllable and uncontrollable factors determining sales outcomes, to help them take corrective action and ensure more efficient forecasting.

Targeted Users

The solution is geared towards sales leaders and account executives in both mid-market B2B organizations and large B2B enterprises using Salesforce. SalesChoice has an open API and can work on other CRMs too.

Current Users

Users include companies like Accenture, CrossFuze, RelationEdge and Digiday.

More Resources:

<http://www.saleschoice.com/resources/>

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