

PROBLEM

As competition increases, banks are expected to lose 24% of total revenue in the next three to five years to customer churn

SOLUTION

Natural language processing and automated machine learning generate insights into why customers churn and how to retain them

RESULTS

By proactively preventing customer churn, retail banks can greatly improve revenue and ROI and maintain a leading edge in the industry

The Problem: Customer Churn in a Crowded Market

According to the Harvard Business Review, acquiring new customers costs five to 25 times more than retaining existing customers. Retail banks are all too aware of this fact, as well as its implications: Customer retention is the key to long-term prosperity.

Unfortunately, keeping loyal customers is harder than it's ever been. Not only do consumers have an increasing number of options in terms of traditional banks for storing their money, online and mobile banking are entering the space as competitors as well. All in all, it's estimated that financial institutions will lose 24% of their total revenue in just the next three to five years due to customer churn¹.

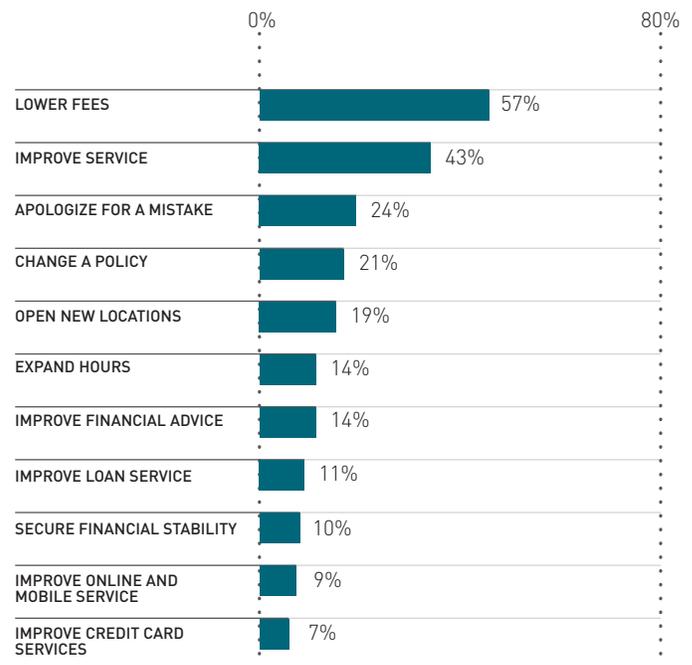
How can retail banks avert this catastrophic outcome? To better retain customers, banks need to understand why they leave. According to a Quantrics report, poor customer experience is the number one reason customers sever their relationship with a given bank. In surveys, 56% of consumers who changed banks said they would not have left had the bank made more of an effort in customer service.

Seventy-five percent of customers who switch banks do so without warning, but that doesn't mean they make the decision quickly. In fact, most customers consider their departure for an average of nine months, and then actively plan it for five more.

This is good news for banks: According to Quattrics, about half of these customers can still be retained, and banks have a full fourteen-month window to convince them to stay. But to do so, they must be able to identify which customers are likely considering switching banks, and why.

FIGURE 1

The top ways banks can retain customers who are considering leaving



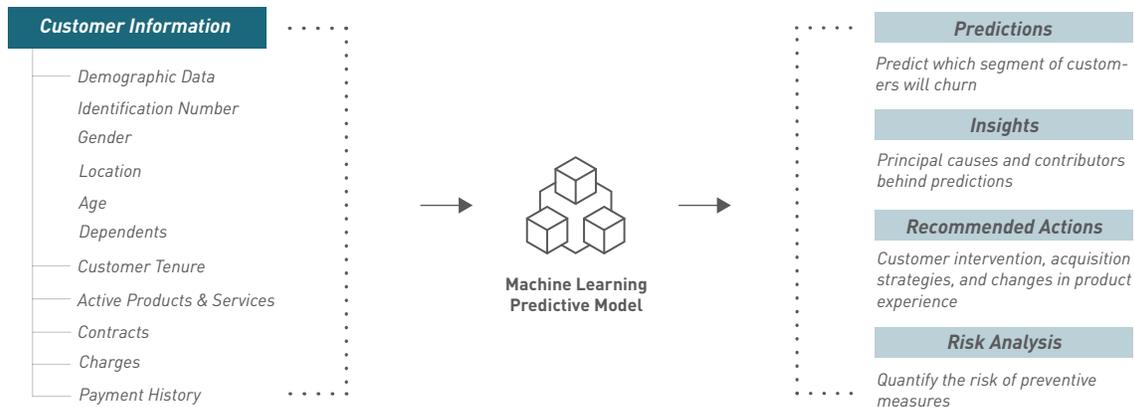
CUSTOMER BEGINS TO CONSIDER DEPARTURE

CUSTOMER PLANS TO LEAVE

CUSTOMER EXPECTS TO LEAVE



FIGURE 2
Creating predictive models with machine learning



The Solution: Prevent Churn with NLP and AMB

By analyzing the customer data they have, banks can predict which customers might leave, and then adjust sales and marketing strategies to proactively address the main contributors to churn and prevent it on a per-customer basis with targeted advertizing and custom offers.

This analysis can be accomplished by using machine learning—specifically, natural language processing (NLP) and automated model building (AMB).

NLP software like SparkCognition’s DeepNLP™ enables machine learning models to take full advantage of the wealth of customer data available. It transforms natural language content into structured data, which can then be used for process automation, decision support and analytics, and predictive modeling when paired with automated model building (AMB) software.

AMB is needed because the creation of models that can use customer data to predict churn would ordinarily be a difficult task, requiring substantial data science and subject matter expertise, as well as

constant dedication to scale and maintain potentially thousands of models across the entire organization. To genuinely create and benefit from customer churn models, banks must make use of AMB.

AMB solutions, such as SparkCognition’s Darwin™, provide a productive environment to empower users of all data science experience levels to quickly prototype use cases. This allows users to develop, tune, and implement machine learning applications faster than traditional methods. In this case, AMB solutions can ingest customer data, clean and transform this data for use, and generate a customer churn profile, identifying the characteristics of these customers and their likelihood of changing banks. This model can then be used to predict churn and reduce it by proactively reaching out to dissatisfied customers. It can also generate custom offers based on individual customer profiles that are optimized to prevent churn.

The Results: A New Business Model for Banking

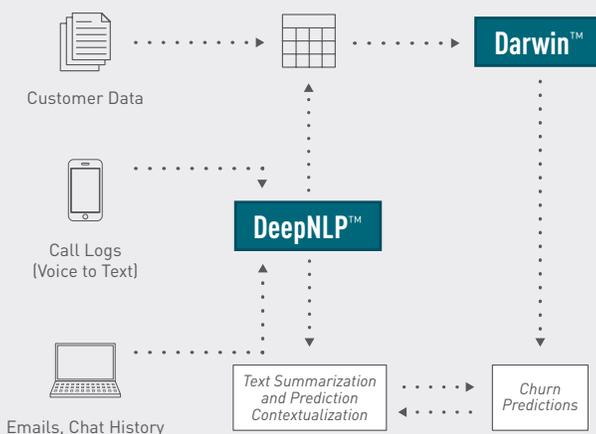
Using the results of machine learning analysis, retail banks can adjust their overall strategy by reaching out to high-value customers that are likely to churn, greatly improving overall profit as well as ROI. Over 90% of the top 50 banks in the world are making use of advanced analytics, but most have had limited success, largely confined to one-off projects. But this paradigm is shifting rapidly as leading banks invest in data science and machine learning talent, or partner with firms that specialize in analytics.

Within just a few years, these banks will have accrued an insurmountable advantage, while the rest will find themselves shedding customers at the alarming rates cited above. For retail banks looking to gain an advantage in the years to come, machine learning is the only option.

About SparkCognition™

SparkCognition™ builds leading artificial intelligence systems to advance the most important interests of society. We help customers analyze complex data, empower decision making, and transform human and industrial productivity with award-winning machine learning technology and expert teams focused on defense, IIoT, and finance.

FIGURE 3
Churn prediction using DeepNLP and Darwin



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