Success Story

Bosch India's solution helps a High-tech Engineering Company address Customer Churn in its After-market division

Robert Bosch Engineering and Business Solutions Private Limited

BOSCH
Invented for life

Challenge

A leading High-tech engineering company required an effective solution to address customer churn for its Construction After-Market Division. Owing to a huge diversity in customers and products, the customer was looking for a solution to identify churn well in advance as well identify factors leading to the churn.

Solution

The Bosch Team provided the customer with an Advanced Analytical solution along with an insightful visualization tool to proactively address customer-churn, make outbound telemarketing calls, adopt customer retention strategies, address piracy issues and deal with end user's concerns. The solution improved the customer's insight into churn enabling them to aggressively address issues contributing to it.

Results

The system has been highly successful in addressing customer's requirements. The key highlights of the churn system are:

· Prediction accuracy of more than 85%

· Identification of components likely to be affected by customer churn and piracy

· Impact forecast of discounts/premiums on customer churn

Robert Bosch Engineering and Business Solutions Private Limited

Customer background

A Global high-tech engineering group with key operations in the areas of Machining solutions, Mining, Materials technology, and Construction. Their operations are based on their unique expertise in materials technology, extensive knowledge about industrial processes and close customer cooperation. This combination, coupled with continuous investments in research and development (R&D), has enabled them to achieve world-leading positions in their key business areas.

Business Problem

The Construction After-Market division was unable to track and follow the customer churn effectively. This was resulting in lose of revenue due to non-availability of counter-measures to preempt churn. Due to inadequate data structures and improper data capturing mechanisms, the customer faced a huge challenge in identifying the root causes. The customer's data, highly complex in nature, consisted of more than 75000 records with 60 variables and included

- 650+ unique customers
- 7000+ parts
- 9 equipments
- 6 years of data

Resolution

During the first phase of development, the team worked on Data Harmonization, Data structuring, and in developing a classification model for Churn prediction. With no unique identifier available in the unstructured data to merge between machine, equipment and sales data sets, Bosch used techniques like fuzzy lookup and various other algorithms to create a master data that included information about Customers, Equipments, Machines, Locations and the status. After Data Harmonization, Bosch Team analyzed buying patterns and developed advanced analytical models to classify the customers along with a likely Churn rate prediction. The Churn prediction at the customer level was validated and accepted by the customer.

In the second phase, using the master data, the team developed an interactive visualization tool to analyze data across customers, machines, equipments, and geographies to granular levels of detail. Intuitive algorithms were built in the system to select customers and equipments to a user's matter of interest, analyze churn patterns, draw insights on churn, and take decisions based on the pattern.

Results

The Customer Churn Prediction System deployed by Bosch is capable of providing access to critical data, allowing the customer to actively follow up on churn patterns. This has been instrumental in aiding the sales & marketing team to take decisions and change their strategies. With the system, the customer has been able to

- Follow up with customers likely to churn (going out of business)
- Predict customer churn with an reasonably high accuracy
- Identify components likely to be affected by customer churn and piracy
- Forecast the impact of discounts/premiums on customer churn and accordingly modify the pricing