



Success Story

Bosch India develops a sales propensity model for a major automotive OEM

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BOSCH

Invented for life

Challenge

The Sales & Marketing Division of a major automotive OEM required an efficient solution to analyze enquiries and predict sales conversions in the passenger car segment. Large volume of data was already being captured in the dealer management system, but this data was not being utilized to its full potential. The team needed a system to estimate and prioritize sales enquiries for follow-ups based on their probability of sales conversion.

Solution

Data analytics team at Bosch helped in designing a predictive model for the customer to prioritize and segment its follow ups on enquiries. The Bosch team provided an Advanced Analytical solution to predict the probability of an enquiry conversion marked against rank value on a scale of 1 to 10. The three-phased

project employed different tools and techniques including visual analytics on enquiries and sales data, feature selection algorithms on predictive analytics model and eventually developed a comprehensive tool that predicts enquiry conversion and priority ranking for sales enquiries.

Results

The solution successfully addressed the challenges faced by the customer's Sales & Marketing Division. The key outcomes of the predictive analytics model were:

- Overall sales prediction accuracy of more than 82%
- Sales prediction for a wide range of passenger car models across diverse geographical locations
- Quick lead conversion due to efficient priority ranking for enquiries
- Classification of specific model types with high conversions for better inventory planning

Customer background

The automotive OEM is a multinational conglomerate with global presence in over 100 countries. It's key operations span across multiple industries including aerospace, agribusiness, automotive, defense, information technology, leisure and hospitality, real estate, retail and logistics, etc. A varied portfolio of products and services driven by innovation and technology to delight customers has fueled the company's success story.

Business Problem

The Sales and Marketing division of the customer were not categorizing and prioritizing potential leads in their enquiries. This was resulting in them missing out on leads with a high conversion potential. Lack of an efficient predictive model and improper data capture mechanisms were contributing towards a growing number of delayed target follow-ups.

The customer's enquiries and sales data, spread across 3 years, consisted of a mix of numerical, ordinal and categorical variables and included information of

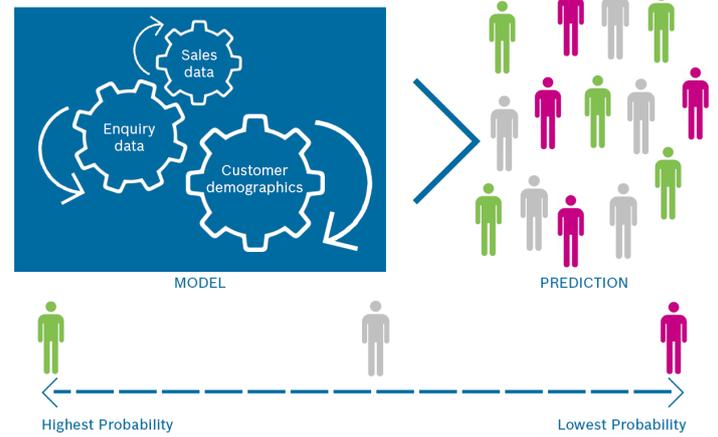
- 4 Lakh+ enquiries
- 4 dealers
- 8 locations across 5 zones
- 86 data fields per enquiry
- 32 different vehicle groups and multiple models under each group

Resolution

In the first phase, the Bosch team worked on Visual Analytics for 3 years of data including both enquiry data and sales data through correlational study. The process involved Data Cleaning, Processing and Analytics in order to gain better business understanding on variable dependencies.

In the second phase, applying research techniques such as feature selection algorithms, data sufficiency and

Predictive Analytics



domain understanding, Bosch developed a predictive model for enquiry conversion. The model included information comprising of groups, dealer levels and geographical distribution in order to initialize enquiry conversion prediction across all levels. In addition, it also considered factors such as festivals and seasonality. The resulting predictive model calculated the priority ranking for sales enquiries on the scale of 1-10 with 10 being the highest conversion probability.

In the final phase, the team developed an application tool for the customer which enabled them to upload sales enquiries, run enquiry conversion prediction and generate priority ranking for the entire list of enquiries on a daily basis.

Results

Bosch's propensity model for sales conversion helped the customer to prioritize enquiries based on higher probability of sales conversion. It equipped the team to arrive at key decisions and strategize dynamic solutions. The system provided:

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- Improved sales prediction accuracy by 82% and above for specific vehicle models
- Improved resources utilization at dealerships
- Increased sales conversions
- Better sales forecasts and demand planning

