CASE STUDY

Enabled a leading telecom company forecast customer retention with high accuracy

Mu Sigma

What We Did: Developed a forecasting engine to predict customers' propensity to churn for a leading telecom company.

The Impact We Made: The new Forecasting tool improved the accuracy by about 17%. Also, it helped the client to identify the impact of pricing, coverage etc. on customer base.

Summary - Customer churn forecasting engine

The demand planning and forecasting team of the client's organization wanted to improve the current customer churn forecast mechanism in order to accurately predict demand. The team was focused to take necessary steps across marketing/ pricing to increase customer retention as well as add more customers to its base.

About The Client - Large telecommunications provider

The client is one of the largest telecommunications company in the US and provides cable, broadband and telephony service. With more than 300 MN of subscriber base, the client owns and operates networks in multiple countries. It also provides telecommunications and IT services to corporate.

The Challenge - Lack of key drivers

The current forecasting process didn't involve key drivers of forecasts such as customer profiles, pricing, contractual expirations, cross cohort differences. A lot of this information was not in right data format for usage and hence, the client team didn't use them for forecast generation. The client was also involved in a range of marketing activities and hence understanding which model will best forecast customer connections is of paramount importance.

The Approach - Time series with panel data regression for forecasting

Mu Sigma employed a structured methodology for development of the forecasting tool

- Initially, the data was cleaned and brought into a usable format. The data was treated for various anomalies including any natural calamities, recession etc.

- After that, robust models were developed which gave monthly forecasts for each product in each region of operation
    - Models took into account the macro-economic conditions, customer profiles, pricing information and past data patterns as well.
    - Degree of heterogeneity, duration dependence, seasonality, contractual expirations and cross-cohort differences in all subscriber bases was also examined
- Using a set of models with higher accuracy, the forecasting tool was developed which enabled the client to gauge the impact of change in different variables like price, marketing expense etc. on subscriber base.

The Outcome - Improved forecast accuracy by 17%

The tool developed improved the forecasting accuracy by about 17%. Also, it helped the client to identify the impact of pricing, coverage etc. on the number of subscriptions. Along with this, it helped the company strategize their marketing initiatives in order to improve revenue.

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