WNS
Extending Your Enterprise

Industry
Insurance

Process
Demand modeling

Created a comprehensive demand model to help a leading insurer increase customer retention by one percent

The client is a leading U.S.-based property and casualty insurer

The Client's Challenge

In a challenging economic environment with stagnating growth, the client needed to identify the drivers of demand for customer retention, mid-term cancellation and conversion / acquisition of insurance policies in the auto insurance market. The client decided to pilot the analysis in one state to determine effectiveness.

The WNS Solution

Insurance companies traditionally price their products based on the costs incurred in the payment of claims. The expected cost of a claim for a particular risk profile is calculated based on the propensity and severity of the claim as well as the insurer's ability to 'out-underwrite' the competition at that price. The profit margin is then added to the risk and the operations cost of the policy before arriving at the final pricing. This calculation does not include demand-side pricing: the customer's willingness to pay.

The price optimization process aids the insurer to identify the drivers of this retention and use these drivers to predict the retention behavior of their policyholders. Therefore, insurers must obtain a clear picture of customers' price elasticity at different price points.

WNS has developed models that help identify the factors that drive demand and profile customers based on their willingness to pay. This process includes the extraction of

the data to create predictive models, make projections of future demand, and test various scenarios to develop optimal pricing.

The WNS solution involved the following steps:

Step 1: Data preparation

- The WNS team and the client clearly defined retention, mid-term cancellation and quotes conversion to help in data preparation for modeling

- Data was extracted from a data warehouse cubes for further analysis of policy attributes at the beginning of the policy period as well as at the time of renewal. A flag variable was introduced to indicate policies that were retained and those that were cancelled mid-term

- The data was extracted for the first and last generation of the quote. Flag variable was created for the quotes that converted and those who did not convert

- Competitor rates were generated for each policy using a third party tool

Step 2: Model building

- The flag variable was converted into a dichotomous variable and used as the dependent variable in logistic regression modeling

- Data on customer policies, vehicles, driver data, demographic data, and competitors' price was used to create predictor variables in the model to identify the determinants of retention, mid-term cancellation and quote conversion

When building the model, the WNS team analyzed the behaviors of an estimated 20,000 customers contained within approximately 5 million records.

Extending Your Enterprise

The WNS analytics solution has enabled the client to develop a better understanding of factors that drive customer demand and price products on the basis of the customer's willingness to pay.

Benefits delivered by the WNS team

- The client was able to improve policy retention by one percent and maintain the same levels of profitability by deploying demand models in their pricing strategy

- A key result of this project was that the client was able to extend the demand-pricing model for the auto insurance products to other states in the U.S. as part of its nationwide strategy

About WNS

WNS (Holdings) Limited (NYSE: WNS), is a leading global business process outsourcing company. WNS offers business value to 200+ global clients by combining operational excellence with deep domain expertise in key industry verticals, including Travel, Insurance, Banking and Financial Services, Manufacturing, Retail and Consumer Packaged Goods, Shipping and Logistics, Healthcare and Utilities. WNS delivers an entire spectrum of business process outsourcing services such as finance and accounting, customer care, technology solutions, research and analytics and industry-specific back-office and front-office processes. WNS has over 25,000 professionals across 29 delivery centers world-wide, including Costa Rica, India, the Philippines, Romania, South Africa, Sri Lanka, U.K and U.S.

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