

Hello Sir/Madam,

To examine the hypothesis regarding the influence of price sensitivity on customer churn, a comprehensive analysis is essential. The proposed approach involves creating models to predict churn probabilities and assessing the impact of prices on churn rates. To facilitate this, the following data sets are required:

Customer Data:

- Inclusive of client characteristics such as industry, historical electricity consumption, and date of becoming a customer.

Churn Data:

- Indicating whether a customer has churned.

Historical Price Data:

- Highlighting the prices charged to each customer for both electricity and gas at detailed time intervals.

Upon obtaining the necessary data, the outlined work plan is as follows:

Define Price Sensitivity:

- Clearly articulate what is meant by price sensitivity and calculate it based on the available data.

Feature Engineering and Model Building:

- Engineer relevant features based on the acquired data.
- Construct a binary classification model using techniques such as Logistic Regression, Random Forest, or Gradient Boosted Machines.

Model Selection:

- Evaluate models based on the tradeoff between complexity, explainability, and accuracy.
- Choose the most suitable model for further analysis.

In-depth Analysis of Price Changes:

- Investigate the specific mechanisms through which price alterations impact churn.
- Uncover insights into why and how price changes influence customer behavior.

Business Impact Assessment:

- Employ the selected model to gauge the business impact of the client's proposed discounting strategy.

- Understand the potential effects on customer retention and overall business performance.

This structured approach ensures a thorough examination of the relationship between price sensitivity and churn, ultimately providing actionable insights for the client. If you have any further questions or require additional information, please feel free to reach out.

Kind regards,

Nikhil Padman