

Hi,
Associate Director.

In order to test the hypothesis of whether churn is driven by the customers' price sensitivity, we would need to model churn probabilities of customers, and derive the effect of prices on churn rates. We would need the following data to be able to build the models.

Data needed:

1. Customer data - which should include characteristics of each client, for example, industry, historical electricity consumption, date joined as customer etc.
2. Churn data - which should indicate if customer has churned
3. Historical price data – which should indicate the prices the client charges to each customer for both electricity and gas at granular time intervals

Once we have the data, the work plan would be:

1. We would need to define what price sensitivity is and calculate it
2. We would need to engineer features based on the data that we obtain, and build a binary classification model (e.g., Logistic Regression, Random Forest, Gradient Boosted Machines to name a few),
3. The best model would be picked based on the tradeoff between the complexity, the interpretability, and the accuracy of the models.
4. We would subsequently dive deeper into why and how price changes impact churn.
5. Finally, the model would allow us to size the business impact of the client's proposed discounting strategy.

Regards,
Aravind Aliveli.