**Email**:

Dear AD,

I am writing this email to share my thoughts on the hypotheses related to customer’s churn rate. There are mainly two hypotheses to test, the first one being that the customer churn is driven by price sensitivity. And the second one is the effectiveness of offering customers who are at a high propensity to churn a 20% discount.

In order to test the two hypotheses, we would need to model the 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 following models:

1. The SME customer data - which should include characteristics of each client, for example, industry, historical electricity consumption, date joined as customer

2. Churn data - which indicates if the SME customer has churned

3. Historical Price data - which should include the prices which the client got charged to each customer for both electricity and gas at granular time intervals

If it is driven by customer price sensitivity, then we can build a binary classification model (e.g. Logistic Regression, Random Forest, Gradient Boosted Machines to name a few), to predict customers likely to churn. We can find the most appropriate model that fits best. Based on the model, we would be able to understand the impact of price on churn rates and size the business impact of the clients proposed discounting strategy using a regression model to predict the impact of a continuous independent variable, such as price, on another continuous dependent variable which in this case is a customer churn rate.

Each of these models has its own strengths and weaknesses, and the choice of model depends on the specific needs of the energy market and the data available for analysis.

Best Regards.

Ruhee Shrestha