

Hello Associate Director,

There are factors to consider in order to determine if the hypothesis brought forward by our client, PowerCo that churn is driven by customer price sensitivity. First of all we will need data and the data we are able to lay our hands on will direct the flow of what we are required to do to verify the above hypothesis.

Following Below is a description of the **Data we will need**:

1. Pricing Data: this includes;
 - a. The Price our client charges its customers.
 - b. And if possible, the prices of our clients' competitors (other service providers)
2. Customer data: this should include;
 - a. Type of customer (SME or residential)
 - b. If the customer is an SME, in what industry?
 - c. How long the customer has been with our client.
 - d. What the customer consumes (electricity, gas or both)
 - e. There will also be a target column in the data to indicate whether or not the customer has churn.

From the data obtained, we will take the following steps of action;

1. Clean the data
2. Engineer new features.
3. Since this is a Categorical or quantitative or classification problem with target labels, the models we will build and evaluate/compare against each other will include;
 - a. Linear Support Vector Classifier (SVC)
 - b. Stochastic Gradient descent Classifier
 - c. Naïve Bayes etc
 - d. Also, the size of the data will also influence which models to use.
4. The best model will be selected based on the appropriate results of the evaluation metrics.
5. The model results will also confirm if the proposed Hypothesis is true and to decide whether or not to follow through with the SME division head suggestions on offering a 20% discount.

Yours Sincerely,

Segun Lawal