PowerCo Problem Formulation

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Associate Director Name

BCG Company address

Dear Mr. Associate Director ABC,

I am pleased to work with you. I have read the problem and extract some points. PowerCo is a major gas and electricity utility so customer churn can be many reasons. As you said, customer churn can because of price sensitivity this is the one reason. I think, there are other reasons as well like customer is not satisfied with the services, customer support is not good and issue in the supply of electricity and gas.

We need a data from PowerCo. So, we can formulate the problem into clear form. We need three types of data.

1. Customer Data: Characteristics of customer (house hold, industry, date joined electricity consumption – defined below).
2. Churn Data: Churn rate, customer churn or not and etc.
3. Historical Data: It includes the bill amount of gas and electricity.

Data includes the field like customer id, customer name, location, house size/ industry/ factory, electricity usage of customer (per month), customer satisfied with service or not, services good or not, customer occupation, customer per month bill payment and etc.

Working Plan at Initial:

1. In the initial stage we do some exploratory analysis of data that main motive is to identify the customer satisfied with services or not.
2. We can find dependencies(relationship) by linear regression (bill amount vs electricity use or location vs bill amount, customer salary vs bill amount).
3. We can categorize the customers into different segments (cluster of customers).

After whole understanding of data:

1. After the analysis, we can use different binary models based on data because of our hypothesis. (Binary Classification, logistic regression, tree-based model and etc.).

2. We can measure the result through different test logs (confusion matrix, accuracy, and etc.) and iterate the process.

3. We have also found that how much discount give to customer.
    a. Whom?
    b. How much?

For this we can categorize the customers and give them discount which is suitable for company.

These are the things which I have noticed if you want to add something we can do it.

Sincerely,

Moiz Khan