

There are different hypothesis for this problem. Some of the problems are listed below:

1. Less number of affordable options for SME.
2. Customer Service given to the SME.
3. Price sensitivity.

All of these reasons are viable; however, we are going to focus on the customer churn in the SME at Power Co. due to price sensitivity. This must be the priority, since we are talking about small to medium businesses which think about price for every decision they take. They expect to find something affordable and equally good quality wise. To retain our SME's, we need to make sure we look at this from their point of view.

As a data science problem, we would have to:

1. Find out how many SMEs leave the business every quarter due to price changes: For this we would need some previous years data(~10 years) of small to medium businesses.
2. We can build bar graphs to check how many % of customers churn every quarter. With this, we would be able to find outlier quarters, and eliminate them from our analysis. We might be able to take a look at those quarters separately to see what's happening there.
3. We must also make an analysis of the history of price changes per SME and for how long they stayed with Power Co. This would give us a hint of brand loyalty, and the threshold of every SME before they churn.
4. One study can also be made with the products, and which products lead to customer churning. Is it the most expensive products which makes them shift from Power Co.?
5. In the past, has Power Co. given any kinds of discounts? And have that reduced the churning during that quarter?

To solve these problems in greater detail, we would need the SME price and product data for the last 10 years.

The ideal dataframe should have 1 row per SME and columns indicating their price per product for the past 40 quarters(4 quarters/year).

We would then build a classification model to find if the customer would churn or not. Common examples of classification models are logistic regression models, random forest, or a softmax loss based neural network.