The Churn Project

Your AD is giving you more responsibility!

Well done for your initial understanding of the case with PowerCo. After reviewing your project plan, the AD would like you lead on the Data Science deliverables for the rest of the project.

The AD would like you to investigate whether price sensitivity is the most influential factor for a customer churning, and if not, to what extent does price sensitivity influence churn.

Before we begin on this task, what exactly is price sensitivity?

What is price sensitivity?

Price sensitivity is **the degree to which demand changes when the cost of a product or service changes.**

In the context of PowerCo, the "demand" refers to the demand for energy consumption.

Price sensitivity is commonly measured using the price elasticity of demand, which states that some consumers won't pay more if a lower-priced option is available.

What is price elasticity of demand?

Price elasticity of demand is a measurement of the change in consumption of a product in relation to a change in its price

Let's get familiar with the data

In this step, you'll need to analyse client data sets using Python and provide your work as a Jupyter notebook.

The client has sent over 3 data sets (shown below):

1. Historical customer data: Customer data such as usage, sign up date, forecasted usage etc
2. Historical pricing data: variable and fixed pricing data etc
3. Churn indicator: whether each customer has churned or not

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You need to analyze the following using Python:

- The data types of each column
- Descriptive statistics of the dataset
- Distributions of columns