Hello AD,

The hypothesis will center around the price and we will explore whether giving a discount will affect churning.

Null hypothesis: Price sensitivity doesn't affect customer churn.
Alternate hypothesis: Price sensitivity does affect customer churn.

I need a customer data sample of over 12,000 data points. Half of that sample should come from customer data in which discounts weren't given. And the other half should come from customer data in which several discounts were applied. On these two sample sets, we will conduct a t-test with a significance level of 5% meaning that if the p-value is below 0.05, we will accept the alternate hypothesis which is that price sensitivity does affect customer churn. Both of the samples should contain balanced customer data and their contract types.

we would need to model 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. Data needed:
1. Customer data: Country, city, profit margins, revenue, company size, industry, energy consumption
2. Contract data: Starting time, ending time, length, discount, promotions
3. Churn data: whether the customer has churned or not.

Once we have the data, we would need to engineer features and do some exploration on relationships between features and other characteristics based on the data that we obtain, and build binary classification models. Based on the accuracy of the results, we will pick the best model that will best predict whether a client will churn or not. It will aid in understanding how prices affect the churn rates, and help in determining exactly how much discount is appropriate considering the profitability of our client.

Regards, Firi