PowerCo Case Task Description

The ask

We have scheduled a meeting in one week's time with the head of the SME division in which you will present our findings of the churn issue and your recommendations on how to address it.

You are in charge of building the model and of suggesting which commercial actions should be taken as a result of the model's outcome.

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Modelling and presentation requirements

The first stage is to establish the viability of such a model. For training your model you are provided with a dataset which includes features of SME customers in January 2016 as well as the information about whether or not they have churned by March 2016. In addition to that you have received the prices from 2015 for these customers. Of particular interest for the client is how you frame the problem for training.

Given that this is the first time the client is resorting to predictive modelling, it is beneficial to leverage descriptive statistics and visualization for extracting interesting insights from the provided data before diving into the model.

Finally, the client would like to have a view on whether the 20% discount offer to customers predicted is a good measure. Given that it is a steep discount – bringing their price lower than all competitors – we can assume for now that everyone who is offered the discount will accept it. According to regulations, PowerCo cannot raise the price of someone within a year if they accept the discount. Therefore, offering it excessively is going to hit revenues hard.

Requirement

The company wants a model that can help them reduce the customer churn and help them identify which leads are likely to churn in order to offer them 20% discount

Summary

1. The current churn rate stands at approximately 10%.
2. The channel_sales-”foosdfpfkusacimwkcsosbicdxkicaua” has a higher number of customers but also a significant churn rate.
3. Customers with one active gas connection are likely to churn.
4. Customers with an antiquity of 3 to 7 years are likely to churn more.
5. Finally, the code "lxidpiddsbxsbosboudacockeimpuepw" was the most subscribed in the electricity campaign, suggesting that a market strategy similar to this code may prove effective.

Churn is indeed high in the SME division

- 9.7% across 14606 customers

Predictive model is able to predict churn but the main driver is not customer price sensitivity

- Yearly consumption, forecasted consumption and net margin are the 3 largest drivers

Discount strategy of 20% is effective but only if targeted appropriately

- Offer discount to only to high-value customers with high churn probability