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Task 2: Lessons Learned Report

Did you learn anything of potential business value from this analysis?

The average default rate is 22%. 24% of men default compared to 21% of women. High school graduates default the most at 25%. While university graduates default the second highest at 24%. Graduate school has the lowest rate. Divorced customers default 26% of the time while married customers default 24% and single customers default 21%. Credit limit balance team to be negatively correlated to default. In general, the lower the credit balance the lower risk of default. History of past payment is positively correlated with default. Amount of previous payment is negatively collated to a higher weighting then amount of bill statement.

What are the main lessons you’ve learned from this experience?

A lot of the important insights from customer segmentation came from non-scientific approaches. I found this interesting because basic analytics provide useful insights. However, the KDE plotting was very useful to see the distribution of the different attributes. One of the issues that I had was that I discretized some fields early on in my analysis. This changed the views of some of the bar graphs. In my next analysis it might be useful to copy the metric and discretize the metric’s copy. This might make it a bit difficult to manage a larger dataset but it sometimes makes sense to use continuous data.

What recommendations would you give to Guido regarding your findings?

We can obtain various impacting fields from credit reports such as credit balance and payment history. However, other customer attributes are preliminarily showing importance (education and marital status) and the client should attempt to obtain them during the loan origination process. The expansion of customer attributes during the credit decision process can increase the likelihood of better credit decisions. Once a loan is approved there are various loan payment attributes, such as bill statement and previous payment, that can be used to understand if a customer might be on the verge of defaulting on their loan. Preemptive payment reminders, offers for payment extension or repayment plans can reduce the default rate and can better increase the profitability of the loan long term.