Customer Default Identification Report

Mission: Explore the relationship between variables in the data and if that customer will default on their loan. Build a model that can better predict what credit limit a customer should be assigned.

CreditOne Insights:

88% of total loans are paid and 22% of loans are defaulted on.

A screenshot of a cell phone

Description automatically generated

The average age lent to is 35 years old and the main lending age bracket is 20-45 years old.

A screenshot of a computer screen

Description automatically generated

Insights Continued:

The majority of loans are under $200,000 and the average amount lent is between $100,000 and $200,000 to 25-75 year old’s.

There is a slightly higher amount of loans to singles, but it does not seem to be significant.

The higher the credit limit doesn't correlate with the customer defaulting on their loan.

Observations and Analysis:

After analyzing the data, there were a few variables that showed a small correlation in predicting if a customer will default on their loan.

* Older, male customers seem to be defaulting more frequently, but when using age and gender to predict default, we were unsuccessful in building a strong model.
* Customers under 25 and over 45 default slightly more than other age groups but not significantly enough to build a predictive model.
* If a customer uses revolving credit, instead of paying in full, this can possibly lead to a higher probability of default on their loan. Using this information, we were only able to produce a model with an 11% success rate.
* We were unable to use the given data to predict what credit limit should be approved to customers based on their education, gender, age, marital status and probability of default.

Recommendations:

After heavy analysis of the given data we were unsuccessful in building a predictive model. We would recommend the firm to compile additional data before proceeding with the current dataset.