DATA SCIENCE FRAMEWORK REPORT

EVALUATING BUSINESS CRITICAL ISSUES FOR CREDIT ONE

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GOAL

Design and implement a creative, empirically sound predictive model with data from the number of customers who have defaulted on loans to better understand what traits might relate to whether or not a customer is likely to default on their current credit obligations.

FRAMEWORK

In order to assess current models and compare our new model we will use a framework adapted from Zumel and Mount which seeks to create a model that can be deployed and maintained for this business critical objective.

- Using the CreditOne data we will parse the variables that have lead to high defaults so that a more accurate predictive model can be used for credit lines.
- Using the default of credit card client data we can test outcomes of our model.
- We will use classification techniques to build our model.
- Evaluate and critique the model in order to rate its performance in relation to current working models.
- Deploy and maintain the model

DATA SOURCES

List of credit card clients who have defaulted which contains demographic data on the lender and payment history.

DATA MANAGEMENT

We will manage the data for this project by continually maintaining variables and creating a strong predictive model for future client analysis

DATA ISSUES

After creating our model we will look at any additional data we need for a stronger fitted predictions

Data Science Framework

START

identify which customer attributes relate significantly to customer default rates.

VARIABLE SELECTION

Collect and manage data of clients who defaulted on credit card

Build a predictive model with a greater predictive accuracy of probability of default

Evaluate and critique the model

Present results to management

Deploy and maintain the model

INITIAL INSIGHTS

1

Age ranges of customers who defaulted are wide ranging indicating it is not a primary factor.

2

More information on how limit balances were reached may be helpful in circumventing default

3

Customers who defaulted often miss payments immediately after beginning use of credit.