

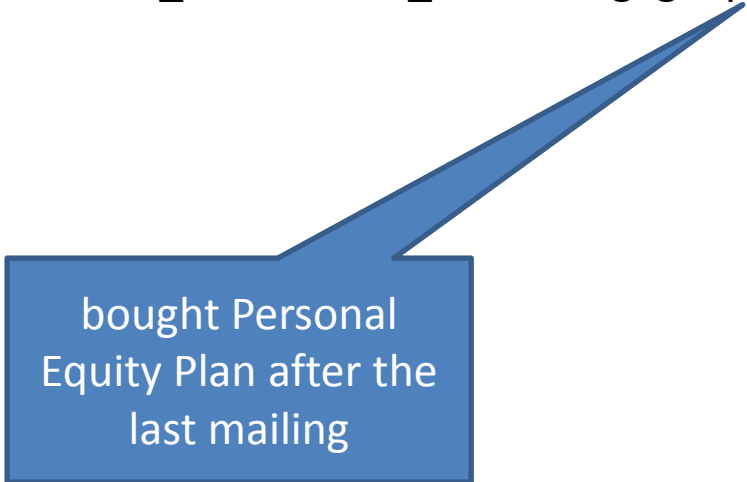
Using classifiers for mail promotions. Business problem

Lab 2

Introducing business problem

- Imagine: you are working for a bank
- Last year you have sent a mass direct mailing offer to promote Personal Equity Plan (PEP)
- You have collected the information about the customers and their response to the mailing offer into the dataset with the following attributes:

Id, age, sex, region, income, married, children, car, save_act, current_act, mortgage, pep



bought Personal
Equity Plan after the
last mailing

Introducing business problem

- We want to use this data to design a new mailing campaign with higher response rate
- We want to spend less for the campaign, but increase the profit

Converting to a data mining problem

- We can build a classifier from the historical data and use it on new customers, to predict, who is more likely to respond
- Then we can selectively target only these customers

Lab consists of two parts: classification and business analysis

- Part I. Data mining: build the classifier and use it for the prediction of potential responders
- Part II. Business analytics: how to design the most profitable campaign

Plan

Part I. Data Mining. Classification with WEKA.

1. Prepare data
2. Build several classifiers. Choose the most accurate one.
3. Divide dataset into training and validation datasets
4. Predict class in the validation dataset
5. Prepare output for business analysis

Part II. Business analysis

1. Generate Lift chart(s)
2. Cost-benefit analysis
3. Recommendations