**Business case 1:**

**Wonderful Wine of the World**

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# **Business understanding**

## Determine business objectives

Wonderful Wine of the World is a 7-years world enterprise base in the USA, focused on the wine market.

The marketing campaigns conducted so far were mainly based on the mass-marketed.

The business goals for this project are mainly 2:

- identifying the profiles of the groups of the WWW customers

- marketing campaign for each group

## 1.2 Assess situation

The IT department of the company provided a dataset containing 10000 customers who have made a purchase in the past 18 months. 29 variables describe the customers.

## 1.3 Determine data mining goals

## 1.4 Produce project plan

# **Data understanding**

## Dataset description

|  |  |
| --- | --- |
| **Name** | **Meaning** |
| CUSTID |  |
| DAYSWUS | number of days as a customer |
| AGE | customer’s age or imputed age |
| EDUC | years of education (may be imputed) |
| INCOME | household income (may be imputed) |
| KIDHOME | 1=child under 13 lives at home |
| TEENHOME | 1=child 13-19 years lives at home |
| FREQ | number of purchases in past 18 mo. |
| RECENCY | number of days since last purchase |
| MONETARY | total sales to this person in 18 mo. |
| LTV | Lifetime value of the customer |
| PERDEAL | % purchases bought on discount |
| DRYRED | % of wines that were dry red wines |
| SWEETRED | % sweet or semi-dry reds |
| DRYWH | % dry white wines |
| SWEETWH | % sweet or semi-dry white wines |
| DESSERT | % dessert wines (port, sherry, etc.) |
| EXOTIC | % very unusual wines |
| WEBPURCH | % of purchases made on website |
| WEBVISIT | average # visits to website per month |
| SMRACK | 1=bought the small wine rack $50 |
| LGRACK | 1=bought the large wine rack $100 |
| HUMID | 1=bought wine cellar humidifier $75 |
| SPCORK | 1=silver-plated cork extractor $60 |
| BUCKET | 1=bought silver wine bucket $150 |
| ACCESS | number of accessories (not SPCORK) |
| COMPLAIN | 1=made a complaint in last 18 mo. |
| MAILFRND | 1=appears on a purchased list of “mail friendly” customers |
| EMAILFRD | 1=appears on a purchased list of “e-mail friendly” customers |

## Collect initial data

## 2.3 Describe, explore and assess data quality

# **Data preparation**

## 3.1 Selection of observations

## 3.2 Feature selection

## 3.3 Data cleaning

## 3.4 Encoding features

## 3.5 Feature engineering

# **4. Modeling**

## 4.1 Selection of modeling technique (explain)

## 4.2 Generate test design

## 4.3 Build and assess model

# **5. Evaluation**

## 5.1 Evaluate results

## 5.2 Review process

## 5.3 Determine next steps

# **6. Deployment**

## 6.1 Plan deployment

## 6.2 Plan monitoring and maintenance

## 6.3 Produce final report and presentation

## 6.4 Review project