



University of Ferrara

E DIPARTIMENTO
DI ECONOMIA
E MANAGEMENT

STATISTICAL METHODS FOR ECONOMICS AND BUSINESS

**Part of the integrated course «Quantitative methods
for Economics and Business» (8 credits)**

Second level degree “Economics, Markets and Management”

Curricula:

Green Economy and Sustainability

Small and Medium Enterprises in International Markets

32 hours, 4 credits

Prof. STEFANO BONNINI

Email address: stefano.bonnini@unife.it

Passito

A marketing survey on the demand of the wine «Passito» has been performed.

A sample of n=386 people has been interviewed. The questionnaire includes several questions about their preferences and behaviors related to drinking wine.

Dataset variables:

| Label | Description | Coding |
|--------------|---|----------------------------|
| ID | Personal ID of the interviewed | Increasing integer number |
| AgeClass | Age of the person | Age (years) |
| AGE_CLASS | Age class of the person | 1-6 |
| SEX | Sex of the person | M or F |
| PROV | Province where the interviewed lives | Province code |
| LIKE_WINE | How much do you like drinking wine? | Integer number from 1 to 7 |
| FREQ_HOME | How often do you drink wine <u>at home</u> with meals? | Integer number from 1 to 5 |
| FREQ_BAR | How often do you drink wine <u>in bars/pubs</u> ? | Integer number from 1 to 5 |
| FREQ_REST | How often do you drink wine <u>at restaurants</u> with meals? | Integer number from 1 to 5 |
| KNOW_PAS | Do you know the wine Passito? | Integer number from 1 to 7 |
| FREQ_PAS | How often do you drink Passito? | Integer number from 1 to 5 |
| FREQ_P_HOL | How often do you drink Passito on holidays and celebrations? | Integer number from 1 to 5 |
| FREQ_P_ALO | How often do you drink Passito when you are alone? | Integer number from 1 to 5 |
| FREQ_P_MEA | How often do you drink Passito at the end of meals? | Integer number from 1 to 5 |
| FREQ_P_OFF | How often do you drink Passito offered by someone? | Integer number from 1 to 5 |
| HOW_MUCH | How much wine do you drink in one year? | Integer number from 1 to 4 |
| LIKE_PAS | How much do you like drinking Passito? | Integer number from 1 to 7 |
| LIKE_AROMA | How much do you like aroma and smell of Passito? | Integer number from 1 to 7 |
| LIKE_SWEET | How much do you like the sweetness of Passito? | Integer number from 1 to 7 |
| LIKE_ALCOHOL | How much do you like the alcohol content of Passito? | Integer number from 1 to 7 |
| LIKE_TASTE | How much do you like the intensity of taste of Passito? | Integer number from 1 to 7 |
| PRICE | How much could you pay for one bottle of Passito? (0.5 litre) | Integer number from 1 to 5 |

Heating Habits

Official data by Food and Agricultural Organization (FAO) about per capita food consumption by type of food.

The set of 126 countries with a population greater than 3 millions of people have been considered.

Dataset variables:

Alcoholic
Beverages
Cereals
Fruits
Starchy Roots
Sugar
Veg Oils
Animal Fats
Meat
Eggs
Fish
Veg_pulses
Milk
Population

Hotel

A customer satisfaction survey where four hotels have been evaluated by 40 customers (10 for each hotel) with respect to $k=3$ variables: cleanliness, courtesy and price.

The data consist of rates from 0 (minimum satisfaction) to 100 (maximum satisfaction).

Dataset variables:

| <i>Name</i> | <i>Type</i> |
|--------------------|--------------------|
| <i>Hotel</i> | Categorical |
| <i>Cleanliness</i> | Numeric |
| <i>Courtesy</i> | Numeric |
| <i>Price</i> | Numeric |

Mall

A customer satisfaction survey about a recently opened shopping center.

A sample of $n=29$ customers was asked to evaluate $k=5$ different aspects of the shopping center, such as the environmental temperature, the brightness, the presence of sales assistants, the range of products, the background music volume.

Evaluations are expressed on a scale from -100 («too little») to +100 («too much»), where 0 corresponds to «just right».

Dataset variables:

Temp_Level

Brightness

Salesman

Product_assortmant

Music_volume

Students

Let us consider an example of teaching evaluation of $k=3$ university programs (undergraduate degree in Economics) evaluated by $n=20$ students with a rate from 0 to 100.

Dataset variables:

Statistics
Mathematics
Econometrics