Statistics for business and decision making 4 cfu (32 hours of lessons) I module

Knowledge and understanding: This course aims at introducing students with useful statistical methods for describing and analysing economic and business data.

Applying knowledge and understanding: At the end of the course the student will be able to: - represent and synthesize economic and business data through the use of descriptive statistics tools; - knows data collection sources and methods; - knows of tools for analysing the relationships between variables; - uses these tools for the study of data in the business economy.

Making judgements:By the end of the Course the students will be able to apply descriptive statistics for business and economic data for the study of specific firms' situations.

Communication skills: By the end of the Course the students will have acquired the basic knowledge in order to understand the nature of data and interpret the relationships between the various statistical phenomena in the business economic field.

Learning skills: By the end of the Course the students will be able acquired theoretical statistical knowledge in order to deal with advanced courses in inferential and multivariate statistics.

Course contents

1) **Introduction**

- Measurement, Errors and Data for Consumer research

2) **Primary Data collection**

- Type o surveys

- Survey errors and research design

- Measurement scales

- Questionnaire

3) Data preparation and descriptive statistics

4) Association and correlation among variables

Readings/Bibliography

Statistics for Marketing and Consumer Research. Mario Mazzocchi, SAGE
Publications Inc, 2008.
Further references will be given when needed.

Teaching methods

Lectures (Attendance at classes is not mandatory)

Assessment methods

Written exam: multiple-choice test and empirical examination with R-software.

Knowledge and understanding

The Course aims at introducing the main inferential and multivariate statistical methodologies for the analysis of consumer satisfaction and for the study of market segmentation.

Applying knowledge and understanding

At the end of the Course the students will be able: - to make decisions under conditions of uncertainty by using inferential statistics methods; - to use multivariate analysis tools for managing quantitative and qualitative information related to business and consumers.

Making judgements

By the end of the Course the students will be able to develop empirical statistical models for marketing and consumer research.

Communication skills

By the end of the Course the students will be able to discuss the main topics of industrial organization and strategic behaviour.

By the end of the Course the students will have acquired knowledge on multivariate statistics in order to propose solutions to the main firm problems in the field of customer satisfaction.

Learning skills

By the end of the Course the students will have acquired theoretical and applied statistical knowledge in order to address advanced business strategy developed with a quantitative approach.

Course contents

1. Sampling methods

    a. Probability sampling and type of survey

    b. Confidence intervals and principle of hypothesis testing

2. Statistical analysis of business relationship

    a. Analysis of Variance

    b. Qualitative variables and non-parametric tests

    c. Linear regression models: simple and multiple

3. Cluster analysis and its applications to consumer data

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Teaching methods

Lectures (Attendance at classes is not mandatory)

Assessment methods

Written exam: multiple-choice test and empirical examination with R-software.