UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Data-Driven Decision Making

2627-1-F7704M020-F7704M-02

Learning objectives

The course has the objective to provide students with the knowledge about the type of data and information are used and how they are analyzed to support informed business decision process.

At the end of the course the student will have to demonstrate that he/she is able to:

· Know the main sources of information /data used to support business decision

· Know methods to collect and analyse data

· Apply statistical methods to the data

· Interpret the results obtained, provide synthetic information and recommendation to support business decision

Contents

The course will present the statistical methods focussing on the conceptual and logical aspects that justify their application to different business decisions.

During the course it will be described the statistical analyses and the data used to:

- decide the entrance in a market/product category
- define the product/service portfolio offer and the relative target
- define commercial strategies and measure their in market performance

- make basic forecasts on time-series

Detailed program

1.The Sources of Information

a. Primary and Secondary data

b. The of Consumer research- scope and application

c. The Panel data

2. Data Analysis and representation

a. How to read the data

b. Data visualization

c. Index Numbers

3. The target market identification

a. The size of the demand an the competitive context analysis

b. The market segmentation and the consumer needs identification

c. The brand positioning

d. The Price definition

4. The product/service offer definition

a. New product launch- idea generation

b. Market research to support new product development

c. New product potential sales estimation (test market and simulated test market)

5. The in market perfomance measurament

a. Consumption/sales analysis through retail and home panel

b. Sales forecast

6. Basic principles of time-series analysis

a. Classical methods of forecasting

b. Decomposition methods

7. Market segmentation

a. Factor Analysis

b. Decision trees

c. Cluster Analysis

d. Conjoint Analysis

Prerequisites

Basic principles of Statistics and Mathematics

Teaching methods

Course is delivered through frontal lessons including some case hystories discussions. Presented charts and other teaching materials are available on the e-learning platform of the course

Assessment methods

Learning verification is composed by a compulsory written exam test and by an oral examination test optional. Passing the written exam is the prerequisite to be admitted to the oral exam

Exam content:

The written exam is composed by two parts:

Part 1 Synthetic answer question on course program topics

Part 2 includes (a) an open question to verify student's ability to formulate an articulated answer to a specif topic in the program; (b) an exercise to verify student's ability to apply the statistical method in the program and interpret the results

Oral exam will cover the entire course program

The assessment

Data Driven Decision and Advanced Statistics are two parts of the Quantitative Methods for Decision Making Course.

Final grade of Quantitative Methods for Decision Making Course is the average of the grades achieved in the two courses.

Data Driven Decision Making course assessment is expressed in 30th and considers all tests.

The student will pass the written test if reaches an overall evaluation of at least 18/30

Students can sustain the oral test (optional) only if they pass the written exam (compulsory).

Textbooks and Reading Materials

Teaching material on the e-learning platform

Book: Marketing Research - An applied Orientation; Author: Naresh K.Malhotra; Publishing House: Pearson

Book: Ricerche di marketing, strumenti e tecniche; Author: Raffaele Angelone. PKE srl.

Semester

The course will be hold in the first module of the first semester

Teaching language

English

Sustainable Development Goals

QUALITY EDUCATION | DECENT WORK AND ECONOMIC GROWTH