uc3m Universidad Carlos III de Madrid

Data analysis in marketing

Academic Year: (2023 / 2024) Review date: 22/03/2023 13:44:11

Department assigned to the subject: Statistics Department

Coordinating teacher: KAISER REMIRO, REGINA

Type: Compulsory ECTS Credits: 3.0

Year: 1 Semester: 1

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Not required.

OBJECTIVES

Skills to be acquired:

General skills:

- *CG1: Solid theoretical knowledge of Marketing and Market Research.
- *CG2: Effective knowledge of other disciplines / techniques used in Marketing and Market Research.
- *CG6: Ability to search and analyze information from different sources.
- *CG14: Ethical commitment.

Specific skills:

*CE4: To learn the qualitative and quantitative tools for market research, to choose and apply the most appropriate technique to every problem and understand the potential of computer tools in this area.

LEARNING OUTCOMES

The student distinguishes between the basic concepts and the methodologies to be carried out in each stage of market research (sample, questionnaire, data analysis, etc.).

The student solves a problem faced by the company to design the appropriate market study.

The student applies the market research process to real and relevant marketing situations for companies.

The student analyzes and evaluates the results of market research to propose strategic orientations and operational actions.

DESCRIPTION OF CONTENTS: PROGRAMME

- ¿ Quantitative analysis in marketing. Types of marketing data, and inference analysis.
- ¿ Classical Statistical inference: Distributional probability models, Point and interval estimation and hypothesis testing with Maximum Likelihood and extremum M-estimators. Multiple linear regression analysis and nonlinear regression.
- ¿ Sampling techniques for finite populations.
- ¿ Practical implementation based on the use of specialized software.

LEARNING ACTIVITIES AND METHODOLOGY

TRAINING ACTIVITIES OF THE SUBJECT AF3 Theoretical practical classes AF6 Group work AF7 Individual student work

Activity code / No. of total hours / No. of face-to-face hours /% face-to-face AF3 105 105 100 AF6 145 0 0 AF7 125 0 0

TOTAL SUBJECT 375 105

TEACHING METHODOLOGIES

MD1 Lectures in the teacher's class supported by computer and audiovisual media, in which the main concepts of the subject are developed and the bibliography is provided to complement the students' learning.

MD2 Critical reading of texts recommended by the professor of the subject: Sentences and resolutions, press articles, reports, manuals and / or academic articles, either for later discussion in class, or to expand and consolidate the knowledge of the subject.

MD3 Resolution of practical cases, problems, etc.; raised by the teacher individually or in groups

MD4 Presentation and discussion in class, under the moderation of the teacher, of topics related to the content of the subject, as well as practical cases

MD5 Preparation of works and reports individually or in groups

ASSESSMENT SYSTEM

% end-of-term-examination/test: 40 % of continuous assessment (assigments, laboratory, practicals...): 60

Your final grade will be assigned based on:

Participation in-class, discussion, assignments, guizzes and cases studies: 60%

Final exam: 40%.

In order to pass the subject, students need to meet the minimum passing score of 4 points (out of a possible 10) in the final exam. Students that do not meet the minimum passing grade should retake the subject. If the resit is taken, the above grade criteria also apply.

BASIC BIBLIOGRAPHY

- Devore, J.L., and N.R. Farnum Applied Statistics for Enginners and Scientist, 2nd Edition, Duxbury Press, , 2004
- Lind, D. Marchal, W.G. and Wathen, S. Statistical Techniques in Business and Economics. 15th Edition., Irwin/McGraw-Hill, 2011
- Siegel, A.F. Practical Business Statistics., Academic Press., 2011