BARCELONA SCHOOL OF MANAGEMENT

Quantitative and Financial Techniques applied to Marketing

Professor: Roger Pagà and Luz Parrondo
Office hours: by appointment
Course Type: Compulsory
Credits: 3 ECST
Term: 1st Term

Course Description

The present course is divided in two separate blocks. The first block revolves around data analysis and will present students with several statistical techniques commonly used in quantitative market research. The second block of the course revolves around accounting and finance and will present students with an introduction to the main concepts related to managerial accounting, cost accounting and budgeting.

Objectives

The main goal of the data analysis block is to provide students with a body of theoretical and practical knowledge that allows them to:

1) Obtain relevant descriptive statistics and charts from a dataset, and understand how to interpret them.
2) Understand which 'dependence' statistical techniques are better suited to analyse a dataset, how to perform them, and how to interpret the results.

The accounting and finance block of the course will allow the student to identify the measures to take in connection with company analysis and financial decision-making, and other decisions that can improve the performance of a firm. Students will have a better understanding of the working capital management and cost accounting as a key factor of the firm's financial strength. Finally, we introduce marketing budgeting as an essential tool for decision making.

Methodology

The data analysis block of the course will follow a 'learning by doing' approach. In each session, the professor will present students with a dataset that will serve to illustrate the advantages and scope of a particular statistical technique. Then, the professor will show students how to analyze those datasets using software. Students will be

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performing the same analyses as the professor on their computers, familiarizing themselves with the process. Then, the professor will show students how to interpret the output of those analyses and what practical conclusions can be drawn from them. The goal is that by the end of the course students can autonomously analyze and interpret similar datasets as those seen in the course.

In the accounting and finance block of the course, the professor will use lectures to introduce the key materials, and class discussions to encourage students to share their understanding of these materials. Students will use worksheets and mini-case studies to gain practical experience of the key points. They will read relevant contemporary articles before class, to link the theoretical topics discussed to current events.

Evaluation criteria

For the data analysis block of the course, which accounts for **50%** of the course's final grade, the evaluation items and their weights are as follows:

- In-group assignments involving the analysis and interpretation of datasets: 30%

- Class participation: 10%

- Final exam: 60%

For the accounting and finance block of the course, which accounts for **50%** of the course's final grade, the evaluation items and their weights are as follows:

- Cases and exercises: 30%

- Class participation: 10%

- Final project: 60%

Important:

In courses that feature a final exam, a minimum grade of **5 out of 10** in the final exam is necessary for the other evaluation criteria to be taken into account when computing the student's overall grade for the course. Therefore, students who obtain less than a 5 out of 10 in the final exam will fail the course automatically. Those students will have to take a remedial exam (more details below).

Courses in the Program will generally include group assignments (case studies, projects etc.). At the end of each term, and in order to disincentivize free-riding behaviors, students will have the opportunity to evaluate the involvement of the rest of their team members in all group assignments that took place within the term. Students

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who obtain sufficiently poor evaluations from their team members will be penalized. The penalty will involve a reduction in the overall group assignment grades of **all** courses that include group assignments. More details on the topic are available on eCampus.

STUDENTS WHO FAIL TO DELIVER ALL THE ASSIGNMENTS WILL NOT BE ALLOWED TO TAKE THE FINAL EXAM.

All the activities that are submitted past the deadline or that do not follow the submission instructions in terms of content, format, etc. will be considered as 'not submitted'. Students will be informed about the submission and presentation dates the first day of class.

Students are required to attend 80% of classes. Failing to do so without justified reason will imply a Zero grade in the participation/attendance evaluation item and may lead to suspension from the program

Students who fail the course during the regular evaluation are allowed ONE re-take of the evaluation, in the conditions specified above. If the course is again failed after the retake, the student will have to register again for the course the following year.

In case of a justified no-show to an exam, the student must inform the corresponding faculty member and the director(s) of the program so that they study the possibility of rescheduling the exam (one possibility being during the "Retake" period). In the meantime, the student will get an "incomplete", which will be replaced by the actual grade after the final exam is taken. The "incomplete" will not be reflected on the student's Academic Transcript.

Plagiarism is to use another's work and to present it as one's own without acknowledging the sources in the correct way. All essays, reports or projects handed in by a student must be original work completed by the student. By enrolling at any UPF BSM Master of Science and signing the "Honor Code," students acknowledge that they understand the schools' policy on plagiarism and certify that all course assignments will be their own work, except where indicated by correct referencing. Failing to do so may result in automatic expulsion from the program."

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Calendar and Contents

Data analysis block (Prof. Roger Pagà)

DATE	TOPIC	ACTIVITY/READINGS
26/09/24	- Brush up on variable types - Obtaining and interpreting descriptive statistics and charts	Excel practice on the topics covered
03/10/24	- An introduction to hypothesis testing - T-tests and Chi-square tests	**Assignment 1**
10/10/24	- Running and interpreting ANOVA models	Excel practice on the topics covered **Assignment 2**
17/10/24	- Running and interpreting regression models (I)	Excel practice on the topics covered
24/10/24	- Running and interpreting regression models (II): conjoint analysis - Summary of the data analysis block and preparation for the final exam	**Assignment 3**

Accounting and Finance block (Prof. Luz Parrondo)

DATE	TOPIC	ACTIVITY/READINGS
27/09	Introduction to FFSS	
04/10	Introduction to BS	Review case Amazon
11/10	Analysis of BS	Review case Amazon
18/10	Analysis of IS	Review case Amazon
25/10	Cash flow statement and Business plan	Review case Netflix

07/11/24	Final Exam (Data Analysis block only)

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Reading Materials/ Bibliography/Resources

Data analysis block:

Lind, D. A., Marchal, W. G., & Wathen, S. A. (2017). *Statistical techniques in business & economics.* McGraw-Hill Education.

Klibanoff, P., Sandroni, A., Moselle, B., Saraniti, B. (2005) Managerial Statistics: A Case-Based Approach. Thomson South-Western.

Moore, D. S., Notz, W. I., Fligner, M. A. (2011) The Basic Practice of Statistics 6th Edition. W. H. Freeman and Company.

Accounting and Finance block:

CHARLES H. GIBSON. Financial Statement Analysis. South-Western, Cengage Learning (12th edition). 2009

COLIN DRURY. Management and Cost Accounting. Cengage Learning (8th edition). 2012

MERILL_LYNCH_-_Understanding_financial_reports (PDF in eCampus)

Bio of Professor

Roger Pagà: is a Lecturer at the Barcelona School of Management at Pompeu Fabra University (UPF-BSM). He has served as the academic coordinator of the M.Sc. in Marketing at UPF-BSM. Before joining UPF-BSM's core faculty, he collaborated with Toulouse Business School as a lecturer. He teaches both at UPF-BSM and at ESCI-UPF School of International Studies. His courses cover a broad set of topics within the area of marketing, ranging from consumer behavior, to market research, to data analysis. His scientific work places special emphasis in the areas of consumer behavior, social psychology, and decision making. He is also involved in knowledge transfer activities about the circular economy (Mercadona Chair in Circular Economy). He holds a PhD in Economics, Finance and Management from UPF.

Luz Parrondo is the Director of the Master's in Accounting and Financial Management and as the former Director of the Postgraduate program in Blockchain and Web 3.0 at UPF Barcelona School of Management. She has earned a PhD in Economics, Finance, and Management from Pompeu Fabra University (UPF). Specializing as a researcher, her focus lies in examining the influence of Deep Tech on financial management, particularly highlighting the accounting and auditing

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sectors.

Recently, she has been named the Blockchain and Cryptoasset Advisor for The Neverest Project. This environmental engineering and technology corporation is dedicated to fostering sustainable action systems and self-sufficient circular economies that prioritize environmental protection and management. Their goal is to find an ideal equilibrium between tourism and the ecosystem.

Furthermore, she is an active member of the Academic Advisory Body (AAB) of the International Association for Trusted Blockchain and participates in the multidisciplinary academic working group on the DLT BAWG – Blockchain & Academia Working Group. She also holds positions on the CBCat Advisory Board and the Technology Committee at Col·legi de Censors Jurats de Comptes de Catalunya. Since 2015, she has been coordinating and editing the professional journal RCD. In her professional capacity, Dr. Parrondo has served as a Financial Controller and Financial Manager for various SMEs in Barcelona. She firmly believes that innovation should never cease. Innovation must never stop.

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