UAB
Universitat Autònoma de Barcelona

2018/2019

Data-Based Marketing and Behaviour-Based Marketing

Code: 43931
ECTS Credits: 10

Degree	Type	Year	Semester
4313148 Marketing	OT	0	2

Contact

Name: Jordi López Sintas

Email: Jordi.Lopez@uab.cat

Teachers

María Pilar López Belbeze

Jordi López Sintas

Jose Lopez Vicario

Giuseppe Lamberti

Use of languages

Principal working language: spanish (spa)

Prerequisites

There are no prerequisites

Objectives and Contextualisation

Block I: Marketing Data Science

Marketing data science addresses the study of marketing problems from data, theories and experiments that study consumer behaviour. It is an interdisciplinary line of knowledge (marketing science, applied microeconomics, industrial organization, and statistical computing) that addresses topics such as the following: investigation of consumer choices and behaviour, evaluation of business decisions based on data, development and application of small and large-scale experiments, methods for the use of large amounts of data, computer methods for the analysis of data available on the Internet. This part is divided into two, applications of marketing data science with R and machine learning applications to marketing problems.

Block II: Behavioural Marketing

Behavioural marketing addresses the study of how individuals behave in relevant domains of consumption. This area of marketing is interdisciplinary and studies topics such as the following: marketing experiments, decision making, attitudes and persuasion, social influence, motivation, cognition, culture, non-conscious behaviour, neuroscience applied to the consumer, emotions. This part is divided into two, behavioural economics (fundamentals) and behavioural marketing (applications).

Skills

- Address business situations and/or problems that imply an ethical dilemma on the basis of critical reflection.
- Design and implement marketing plans, applying criteria of effectiveness and efficiency.
- Design, plan and direct marketing actions in the new scenarios posed by the information society.
- Develop management and leadership skills.
- Draft clear, precise reports on commercial problems.
- Generate innovative, competitive ideas and solutions.
- Implement emerging techniques in the field of marketing.
- Provide innovative solutions to commercial problems.
- Work in interdisciplinary teams.
- Work with the data sources, methodologies and techniques of scientific research, and the IT tools of marketing.

Learning outcomes

1. Address business situations and/or problems that imply an ethical dilemma on the basis of critical reflection.
2. Analyse survey data using the appropriate statistical software.
3. Apply cutting-edge marketing planning tools.
4. Apply the different research methods.
5. Correctly use IT tools to analyse data.
6. Define key strategic positions for different product-market situations.
7. Develop management and leadership skills.
8. Draft clear, precise reports on commercial problems.
9. Establish processes of analysis and evaluation of actions by competing businesses.
10. Evaluate market dynamics.
11. Formulate realistic and innovative strategies.
12. Generate innovative, competitive ideas and solutions.
13. Identify and distinguish the new trends in marketing.
14. Identify and filter the principal emerging trends and technologies.
15. Identify the characteristics of the database in order to analyse the data.
16. Identify the key elements of the principal marketing strategies.
17. Make detailed proposals for planning or organisation in marketing.
18. Use advanced models and criteria for forecasting and monitoring.
19. Use models of strategic diagnosis.
20. Use resources to present summaries of data and results attractively.
21. Work in interdisciplinary teams.

Content

Block I: Marketing data science

Part A) Applications of marketing data science (Dr. Giuseppe Lamberti)

1) Design of new products considering consumers' preferences

Introduction to conjoint analysis and its main applications

Choice of attributes and levels

Selection of the preference model

Data collection and measurement scale

Estimation of the underlying utility function

2) The importance of consumer satisfaction in Marketing strategy to increase the retention of the consumers: Customer Satisfaction Model

Model Interpretation

Implications for the marketing strategy

3) Predict consumer choice through discrete choice models

Discrete choice models

Main applications

Estimation of parameters

Analysis of results

Application of discrete choice models to the conjoint analysis

Part B: Automatic learning models in marketing (Dr. José López Vicario)

This part of the module is based on the development of three mini-projects in the R environment of data analysis. Each mini-project develops a topic of marketing based on data, considering real data from digital marketing companies (AirBnB, Tripadvisor, Amazon) or social networks. The first project and also the second one will be developed in one session. The third project will be developed during two sessions because the concepts of neural networks and learning (deep learning) will be introduced

Social Media Analytics (Sentiment Analysis, Ultra-segmentation, Brand Engagement).

Recommendation system (Basket Market Analysis, Association Rules)

Forecasting Models for Marketing Decisions (Score Prediction, Regression Models vs. Neural Networks).

Block II: Marketing of consumer behaviour

C)Marketing of behaviour I: economics of human behavior (Dr. Jordi López Sintas)

Theory of value

Limited rationality: mental accounting; Limited information; 'Irrational' decisions

Theory of dual systems: Availability and affection; Information that stands out: Bias of the current situation and inertia

Social dimensions

Temporal dimensions

Applications to behavioural change

Ethical aspects

D) Marketing of behaviour II: Applications of behavioural economics to marketing (Dr. Pilar López Belbeze)

Experimentation as a complementary tool

Consumer behaviour and neuroscience

Analysis of the consumer choice process

Applications to product decisions

Applications to price decisions

Applications to brand decisions

Optimization of communication with consumers

Methodology

Teaching methodology

Lecturing

Discussion of articles and cases in class

Practical sessions with cases.

Preparation of tests.

Oral presentation of essays.

Tutorials action

Personal study

Activities

Title	Hours	ECTS	Learning outcomes
Type: Directed			
Lectures, case discussion and presentation of short essays	75	3	1, 2, 3, 4, 10, 6, 7, 9, 13, 14, 15, 16, 11, 17, 5, 19, 18, 20
Type: Supervised			
Tutorials and follow-up of the essays to be carried out and of the cases of analysis	50	2	4, 9, 15, 17, 5, 20
Type: Autonomous			
Assigned readings, preparation of assignments and practical exercises, study and elaboration of schemes	100	4	2, 4, 8, 12, 15, 21, 5, 20

Evaluation

Evaluation

Participation in class discussions (20%)

Deliveries of individual or collective work (40%)

Individual assessment through individual examination or delivery (40%)

1. General modification assessment rules

This module is structured in different parts that are in charge of different lectures. The final grade of the module consists in the average of the notes of each subject or part that make up the module.

It is considered that the module has been approved if:

1 the mark of each part of the module is greater than or equal to 5 (on a scale of 0 to 10) and

2 the final grade of the module is greater than or equal to 5 (on a scale of 0 to 10)

If the module is not approved, the master's coordination will offer the student the possibility of re-evaluating the parts that make up the module that have not been passed if the grade is greater than 3.5, according to the assessment of lecturers and the coordination. If the student approves the re-evaluation the maximum grade that will be obtained in the re-evaluated part will be 5. The reassessment schedule will be made public along with the list of notes of the module.

The note of each part of the module

The student will have a Not Appraised Note if he / she does not attend at least 80% of the attendance classes (a check will be carried out with a signature sheet or with the activities done in class to evaluate) or if he does not do at least 66, 66% of the continuous evaluation activities. Each teacher will specify in this guide the way in which the students will evaluate. If not specified in the guide, these evaluation rules will be delivered the first day of class in writing.

1. **Calendar of evaluation activities**

The dates of the evaluation activities (midterm exams, exercises in the classroom, assignments, ...) will be announced well in advance during the semester.

The date of the final exam is scheduled in the assessment calendar of the Faculty.

"The dates of evaluation activities cannot be modified, unless there is an exceptional and duly justified reason why an evaluation activity cannot be carried out. In this case, the degree coordinator will contact both the teaching staff and the affected student, and a new date will be scheduled within the same academic period to make up for the missed evaluation activity." **Section 1 of Article 115. Calendar of evaluation activities (Academic Regulations UAB).** Students of the Faculty of Economics and Business, who in accordance with the previous paragraph need to change an evaluation activity date must process the request by filling out an **Application for exams' reschedule**
https://eformularis.uab.cat/group/deganat_feie/application-for-exams-reschedule

Grade revision process

After all grading activities have ended, students will be informed of the date and way in which the course grades will be published. Students will be also be informed of the procedure, place, date and time of grade revision following University regulations.

Retake Process

"To be eligible to participate in the retake process, it is required for students to have been previously been evaluated for at least two thirds of the total evaluation activities of the subject." **Section 3 of Article 112 ter. The recovery (UAB Academic Regulations).** Additionally, it is required that the student to have achieved **an average grade of the subject between 3.5 and 4.9**.

The date of the retake exam will be posted in the calendar of evaluation activities of the Faculty. Students who take this exam and pass, will get a grade of 5 for the subject. If the student does not pass the retake, the grade will remain unchanged, and hence, student will fail the course.

Irregularities in evaluation activities

In spite of other disciplinary measures deemed appropriate, and in accordance with current academic regulations, *"in the case that the student makes any irregularity that could lead to a significant variation in the grade of an evaluation activity, it will be graded with a 0, regardless of the disciplinary process that can be instructed. In case of various irregularities occur in the evaluation of the same subject, the final grade of this subject will be 0".* **Section 10 of Article 116. Results of the evaluation. (UAB Academic Regulations).**

Evaluation activities

Title	Weighting	Hours	ECTS	Learning outcomes
Attendance and participation in class discussions	20%	10	0.4	8, 13, 14, 15, 16, 17, 21, 5
Exercises for individual assessment	40%	3	0.12	10, 6, 12, 13, 14, 15, 16, 11
Individual or group exercises	40%	12	0.48	1, 2, 3, 4, 8, 10, 6, 7, 9, 12, 13, 14, 15, 16, 11, 17, 21, 5, 19, 18, 20

Bibliography

Block A:

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Chapman, N.C., and McDonnell, E., Feit. (2015) *R for Marketing Research and Analytics, Springer-Verlag, Switzerland, 2015*

Miller, T. W. (2015). *Marketing Data Science: Modeling Techniques in Predictive Analytics with R and Python* (01 edition). Old Tappan, New Jersey: Pearson FT Press. (https://mdsr-book.github.io/exercises.html)

Grigsby, M. (2015). *Marketing Analytics: A practical guide to real marketing science* (1 edition). London: Philadelphia: Kogan Page.

Block B:

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Sharma,T., D. Sarkar, R. Bali (2017) *Learning Social Media Analytics with R*, Packt Publishing.

Block C:

https://www.behavioraleconomics.com/introduction-behavioral-economics/

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