

Market Analytics in the Era of Big Data (M20076)

GENERAL INFORMATION

Type: OP **Curs:** 2 **Period:** S semester
ECTS Credits: 3 ECTS

Teaching Staff:

Group	Teacher	Department	Language
	Skander Esseghaier	Marketing	ENG

PREREQUISITES

Previous Knowledge Necessary for this Course

Marketing Strategy: Participants in this course should be familiar with the basic concepts of Marketing Strategy: Segmentation, Targeting and Positioning.

Business Statistics: Participants in this course should be familiar with the basics of Statistics, Regression Analysis and Hypothesis Testing. This is the material that is typically covered in a Business Statistics course. Marketing Analytics is not a course about statistics, but it requires a minimum of understanding of statistics.

COURSE CONTRIBUTION TO PROGRAM

In the core Marketing Management course, you learned about the importance of Market Segmentation, Targeting and Positioning in formulating marketing strategies. But as a marketing strategist (whether a management strategy consultant, a brand manager or a Chief Marketing Officer), you would be faced with the key question: "how" does one implement these strategies in practice?

The industrial Internet is increasingly allowing firms to measure consumer data (usage data, perceptions data and preference data) as part of regular business, without a study. Large amounts of data are collected, stored and organized. Such "Big Data" can be today retrieved easily, visualized in a simple manner, and made available to marketing strategists. "Marketing Analytics" will equip you with practical tools to leverage consumer and market data to implement marketing strategies and to support your strategic decision making.

Pre-Reading for this Course: The Big Data Shift

Participants should read this short article (5-pages of text) prior to the start of the course. The article is available on the course Moodle page: "The Big Data Shift," by Marco Vriens and Patricia Kidd (2014), Marketing Insights - American Marketing Association.

COURSE LEARNING OBJECTIVES

In this course, students will develop a working knowledge of market data analytics. At the end of the course, students should:

- 1 understand how market measurement data is leveraged to generate actionable answers about markets: How to segment customers? Who to target? How to map product design and market structure? How and where to position your product?
- 2 understand why and how methods such as logit analysis, cluster analysis and conjoint analysis are useful in market segmentation, in targeting, and in mapping market structure and product design.
- 3 develop an understanding as to which method and approach is best suited to leverage the market measurement data available.

By the end of the course, participants are expected to have acquired a strong working knowledge of market data analytics, developed a familiarity with the language of marketing analytics and be capable

of discussing data analytics questions and results with the data scientists from their organization. They should be able to understand how to link cause to effect using data analytics, and how to think about the right questions to put to the data to generate market insights.

This is NOT a market research course. At the end of the course students will NOT learn:

- "how to conduct? a study and collect data about consumers and markets;
- "what" data to collect, and "how to collect? it in order to address marketing problems.

CONTENT

1. LINKING CAUSES & EFFECTS BETWEEN RESOURCES ALLOCATION AND DESIRED MARKET OUTCOMES USING REGRESSION ANALYTICS

2. DEVELOPING CUSTOMER SELECTION STRATEGIES USING LOGISTIC ANALYTICS

3. CUSTOMER SEGMENTATION & PROFILING USING CLUSTER ANALYTICS

4. BENEFIT SEGMENTATION & MARKET SHARE SIMULATION USING CONJOINT ANALYTICS

METHODOLOGY

Course Activities and Workload Distribution

Course Activities: In the classroom, the course will combine lectures and expository sessions on "what" Marketing Analytics techniques are and "when" to apply them with practical hands on Minitab sessions on "how" to perform the analysis and interpret the output to take decisions (40%). The practical sessions in this course will have a heavy "hands-on" flavor, where we will analyze dataset using the "Minitab" statistical analysis program. (No previous knowledge of Minitab is necessary.)

The course also involves a substantial amount of autonomous work outside of the classroom combining readings that would help you gain a deeper understanding of the material covered in class with homework assignments that would allow you to gain confidence in implementing the analytics techniques on a computer. There would also be feedback sessions on your homework assignments to further help you consolidate your learning.

All four homework assignments for this course are "strictly" individual; that means: (i) you are not allowed to give help to your classmate; (ii) you are not allowed to answer a request for help; and (iii) you are not allowed to seek help from any of your classmates. You would be asked to certify individually and in writing, for each submitted assignment, that you did not volunteer to help a classmate on that assignment, nor answered a request for help from a classmate on that assignment, nor sought help from a classmate on that assignment.

Workload Distribution: The distribution of your workload would be (roughly) as follows:

- Lectures or expository sessions 25% of your work load
- Practical sessions 40% of your work load
- Autonomous work 25% of your work load
- Feedback sessions 10% of your work load

Your laptop is needed for this course: your laptop would be heavily needed inside the classroom and outside of the classroom. Please bring your laptop to all class sessions. Everybody would get access to the Minitab software.

No cell phones are allowed in the classroom: you are expected to be fully engaged in the entire learning process. The course has absolutely no tolerance for the use of cell phones in class.

Detailed note-taking during class is counterproductive to your own learning: your focus in the classroom should be on developing a working knowledge of "how" to perform the analysis and interpret the output to take decisions. Do not worry about taking detailed notes in the classroom. The powerpoint slides and the detailed "Reading Notes" (on topics 2, 3 and 4) that I would be sharing with you exhaustively cover the content of the lectures.

Assessment criteria

Class Attendance and Participation 25% of your total grade
Individual Homework Assignment 1 15% of your total grade
Individual Homework Assignment 2 20% of your total grade
Individual Homework Assignment 3 20% of your total grade

Individual Homework Assignment 4 20% of your total grade

Class Attendance and Participation

Class attendance is absolutely required in this course given the hands-on nature of the course and its learning style: attendance in every session is therefore expected and punctuality is a must.

Individual Homework Assignments

Homework assignments are given to help you gain deeper understanding of the materials covered in class. You will also gain confidence in implementing the analysis techniques on a computer.

BIBLIOGRAPHY

No Textbook is Required for this Course

However, if you are interested in buying a general reference book, I recommend the following title:

Marketing Models: Multivariate Statistics and Data Analytics, by Dawn Iacobucci (2014)

There is no physical binder for this course: any readings, notes, handouts, dataset or additional course material will be available through the course website.

TIMETABLE AND SECTIONS

Group	Teacher	Department
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	Skander Esseghaier	Marketing
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Timetable

From 2018/1/10 to 2018/2/7:

Each Wednesday from 9:30 to 13:00.

Each Wednesday from 14:00 to 17:30.