**Humboldt University Berlin**

**Institute of Marketing**

**Prof. Dr. Daniel Klapper & Dr. Narine Yegoryan**

# Customer Analytics and Customer Insights

# Syllabus WS 2020/21

## Course Dates:

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|---|---|---|
| Lectures | Wednesday, | 12.15 pm – 13:45 pm, Zoom Meetings and Pre-Recordings |
| Exercises | Thursday, | 12:15 pm – 13:45 pm, Zoom Meetings and Pre-Recordings |

## Course Prerequisites:

No prerequisites but successful participation in Marketing Management and Econometric Methods is recommended.

## Course Description and Objectives:

Marketing is about offering customers products that provide more value than competitors' products. Firms must constantly focus on gaining and sustaining competitive advantages. Therefore, marketing has to ensure that firms develop and market superior products in the mind of consumers. Because consumer preferences for product offerings continuously change or evolve over time firms have to engage in an ongoing process of delivering superior products to their customers or new customer groups. In this class we will study core concepts and methods to gain better understanding of the firm's actual and potential customers. For that reason we focus on methods to better understand customers and their preferences. We will learn how to obtain quantitative measures and descriptions about customers and their perception of the market, and we learn how to estimate customer preferences for product characteristics of established and new products. A large part of the class work will therefore focus on econometric and statistical tools to support firms in their marketing decisions. We use the software R, and the empirical modeling with R follows closely the book by Chapman and McDonnell Feit from 2019.

## Course Web Page:

Course material will be made available in the Moodle system of the Humboldt-University Berlin.

## Course Grading:

You have to register for the course via Agnes until November 18.
Your grade bases on a portfolio exam. You have to submit 4 special work performances (SWP).
SWP 1: non-graded, deadline Nov 19, 10:00am
SWP 2: accounts for 25 % of final grade, deadline Dec 18, 4:00pm
SWP 3: accounts for 25 % of final grade, deadline Jan 22, 4:00pm
SWP 4: individual work, accounts for 50 % of final grade, deadline Mar 05, 4:00pm

All special work performances are posted on Moodle. Your work on the special work performances must be sent as pdf before the deadline to daniel.klapper@hu-berlin.de. Special work performances 1, 2 and 3 can be done in a group of 1-4 students (more details in class). Special work performance 4 is individual work. The page constraints of each special work performance are accounced in the special work performance.

## Course Software:

The majority of computing in the course will be done with R. This will include in-class demonstrations and a tutorial how to use R.

## Course Reference Materials:

This course bases in large parts on the book "R for Marketing Research and Analytics" from Chris Chapman and Elea McDonnell Feit (2019, Springer International Publishing). It is highly recommended to purchase this book. Additional help on methods and contents is nicely provided by Malhotra, N. K. (2009). Marketing Research: An Applied Orientation. Prentice Hall, 6th ed.

## Course Topics:

We will cover the following general topics in this course:

(1) The Marketing Management Process
(2) Fundamentals of Data Analysis
    a. Describing Data
    b. Relationships Between Continuous Variables
    c. Comparing Groups: Tables and Visualizations
    d. Comparing Groups: Statistical Tests
    e. Identifying Drivers of Outcomes: Linear Models
(3) Customer Analytics
    a. Segmentation
    b. Measuring Product Perceptions
    c. Cluster Analysis
    d. Identifying Needs of Potential Customers
(4) Consumer Insights
    a. Conjoint Analysis
    b. Choice-Based Conjoint Analysis

Course: Wednesday, 12.15 pm – 13:45 pm, Zoom Meetings and Pre-Recordings
Thursday, 12:15 pm – 13:45 pm, Zoom Meetings and Pre-Recordings

| CW | Date | L/E | Content and Readings |
|---|---|---|---|
| 45 | Nov 04 | L | Course Logistics and Introduction to the Course<br>1 The Marketing-Management Process and its link to Customer Analytics and Customer Insights |
| 45 | Nov 05 | E | Introduction to R<br>Readings:<br>Chapman & McDonnell Feit (2019), Chapter 2.<br>pre-recording, download mp4 file or stream it |
| 46 | Nov 11 | E | 2 Fundamentals of Data Analysis<br>2.1 Describing Data<br>2.2 Relationships Between Continuous Variables<br>Readings:<br>Chapman & McDonnell Feit (2019), Chapter 3, 4.<br>pre-recording, download mp4 file or stream it |
| 46 | Nov 12 | E | 2 Fundamentals of Data Analysis<br>2.3 Comparing Groups: Tables and Visualizations<br>2.4 Comparing Groups: Statistical Tests<br>2.5 Identifying Drivers of Outcomes: Linear Models<br>Readings:<br>Chapman & McDonnell Feit (2019), Chapter 5, 6, 7.<br>pre-recording, download mp4 file or stream it |
| 47 | Nov 18 | E | Self-instructed work with R |
| 47 | Nov 18 | | Registration deadline in Agnes |
| 47 | Nov 19, 10:00am | | Deadline Special Work Performance 1 |
| 47 | Nov 19 | E | 3 Customer Analytics<br>3.1 Segmentation<br>3.2 Multidimensional Scaling<br>Readings:<br>Chapman & McDonnell Feit (2019), Chapter 8.<br>Malhotra, N. K. (2009). Marketing Research: An Applied Orientation. Prentice Hall, 6th ed., Chapter 21, 688-721. |

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| 48 | Nov 25 | L | 3.2 Multidimensional Scaling<br><br>Readings:<br>Chapman & McDonnell Feit (2019), Chapter 8.<br>Malhotra, N. K. (2009). Marketing Research: An Applied Orientation. Prentice Hall, 6th ed., Chapter 21, 688-721. |
| 48 | Nov 26 | E | Measuring Product Perceptions with Multidimensional Scaling using R as Software, pre-recording, download mp4 file or stream it |
| 49 | Dec 02 | L | 3.3 Principal Component Analysis<br><br>Readings:<br>Chapman & McDonnell Feit (2019), Chapter 8.<br>Malhotra, N. K. (2009). Marketing Research: An Applied Orientation. Prentice Hall, 6th ed., Chapter 19, 634-659. |
| 49 | Dec 03 | E | Feedback session on SWP 1 |
| 50 | Dec 09 | L | 3.4 Factor Analysis<br><br>Readings:<br>Chapman & McDonnell Feit (2019), Chapter 8.<br>Malhotra, N. K. (2009). Marketing Research: An Applied Orientation. Prentice Hall, 6th ed., Chapter 19, 634-659. |
| 50 | Dec 10 | E | Measuring Product Perceptions with Principal Component Analysis and Factor Analysis using R as Software, pre-recording, download mp4 file or stream it |
| 51 | Dec 16 | L | 3.4 Cluster Analysis<br><br>Readings:<br>Chapman & McDonnell Feit (2019), Chapter 11.<br>Malhotra, N. K. (2009). Marketing Research: An Applied Orientation. Prentice Hall, 6th ed., Chapter 20, 660-687. |
| 51 | Dec 17 | E | Cluster Analysis using R as Software, pre-recording, download mp4 file or stream it |
| 51 | Dec 18<br>4:00pm | | Deadline Special Work Performance 2 |
| 01 | Jan 06 | E | Group specific feedback on “Special Work Performance 2” |
| 01 | Jan 07 | E | Group specific feedback on “Special Work Performance 2” |
| 02 | Jan 13 | E | Group specific feedback on “Special Work Performance 2” |
| 02 | Jan 14 | L | 4 Customer Insights<br><br>4.1 Rating-based Conjoint Analysis<br><br>Readings:<br>Chapman & McDonnell Feit (2019), Chapter 9. |

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| 03 | Jan 20 | L | 4.1 Rating-based Conjoint Analysis<br>Readings:<br>Chapman & McDonnell Feit (2019), Chapter 9. |
| 03 | Jan 21 | E | Rating-based Conjoint Analysis using R as Software, pre-recording, download mp4 file or stream it |
| 03 | Jan 22<br>4:00pm | | Deadline Special Work Performance 3 |
| 04 | Jan 27 | L | 4.2 Choice-based Conjoint Analysis<br>Readings:<br>Chapman & McDonnell Feit (2019), Chapter 9. |
| 04 | Jan 28 | L | 4.2 Choice-based Conjoint Analysis<br>Readings:<br>Chapman & McDonnell Feit (2019), Chapter 9. |
| 05 | Feb 03 | L | 4. 2 Choice-based Conjoint Analysis<br>Readings:<br>Chapman & McDonnell Feit (2019), Chapter 13. |
| 05 | Feb 04 | E | Choice-based Conjoint Analysis using R as Software, pre-recording, download mp4 file or stream it |
| 06 | Feb 10 | E | Exercise on Choice-Based Conjoint Analysis |
| 06 | Feb 11 | E | Exercise on Choice-Based Conjoint Analysis |
| 07 | Feb 17 | E | Course Wrap up and Discussion about the upcoming Assignment |
| 07 | Feb 18 | E | Feedback on “Special Work Performance 3” |
| 08 | Feb 24 | E | Feedback on “Special Work Performance 3” |
| 08 | Feb 25 | E | Feedback on “Special Work Performance 3” |
| 08 | Mar 05<br>4:00 pm | | Deadline Special Work Performance 4 |

CW = Calendar week
L = Lecture
E = Exercise