

Market Intelligence: The Art and the Science

Fall 2023
MS: B8656, Section 060

Professors

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Course Description

Marketing Intelligence: The Art and the Science is an advanced, comprehensive market research course predicated on the idea that to understand customer attitudes, sentiments, behavior, and culture fully, both qualitative and quantitative research are necessary. The course covers how strategic business planning, brand-building insights, and sound marketing decision making are best served by applying an array of behavioral, social, and mathematical sciences and using them complementarily. Students learn how to select and execute the right research to obtain customer intelligence, make sense of it, and apply it to marketing problems.

Among the questions *Marketing Intelligence: The Art and the Science* addresses are those marketers need to answer whether they are leading a small start-up or serving as a manager in a large corporation: How do I begin to understand the market for my product? How can I segment my customers? How do I know if customers need or want my product? How do I develop/modify my product and how can market research inform its design and improve the user's experience (UX)? What are the best ways to position my product in the marketplace? How do I generate insights for advertising and evaluate reactions to my messages? How do I price my product? How many can I sell? What ethical considerations emanate from qualitative and quantitative market research?

We take an experiential approach in this course. Students will learn through cases, lecture/class discussions, and a course project how to conduct deep probing one-on-one interviews, illuminating focus groups, disciplined ethnographies, and ways to systematically map multi-dimensional customer journeys. Students will learn quantitative marketing research methods such as cluster analysis, factor analysis, conjoint analysis, and logistic and OLS regressions for analyzing marketing data. Generative AI will be incorporated in the course because AI tools, e.g., ChatGPT, Google Bard, and others, constitute a powerful and disruptive innovation for market research. For the major course project, students will work with real companies, conducting research first-hand that can have applications in the marketplace.

Course Prerequisites

Several of the cases, assignments, and the major course project require R programming. Consequently, you must have a basic knowledge of statistics and sufficient facility with R.

Course Material

- Articles, Video, and Cases (Available on Canvas or in links in this syllabus)
- *Qualitative Consumer and Marketing Research*. Russell W. Belk, Eileen Fischer and Robert Kozinets. Sage. 2012. (BFK)

- *Marketing Research: An Applied Orientation*. Naresh K. Malhotra and Satyabhusan Dash. Prentice Hall. Seventh Edition. 2018. (MD)
- Both textbooks are placed on Course Reserve.

Student Evaluation

Class Participation	10% (Individual)
Case Assignments	25% (Group; 5% each) <ul style="list-style-type: none">• Layla's Delicacies• All Nutrition (A)• All Nutrition (B)• Pilgrim Bank• Star Digital
Group Project	40% (Group) <ul style="list-style-type: none">• Four project assignments (20%): Research proposal, customer journey map; qualitative study, quantitative study• Final project write-up (20%)
Midterm Exam	25% (Individual)

There will be optional concept checks throughout the course. Although not graded, these problems are useful for preparing for the midterm and for practicing R-programming.

For all group work, students will evaluate each other's performance. These evaluations will be considered in assigning final grades.

Assignments will be due on the posted due dates and times (no exceptions). If your group has a valid reason for not being able to turn in the assignment on time, let us know in advance.

Class Participation

We will make a strong effort to get to know you personally and ensure that your course contribution is accurately evaluated. Your level of attention and engagement, contribution to the class discussions, and general interaction will count toward your class participation grade.

Your active participation in the class benefits everyone involved. It helps you to stay engaged, get your questions answered, and gauge your understanding of the class material. It also helps classmates who have similar questions and the teaching team assess how good of a job we are doing with communication and pacing.

We recognize that everyone has different comfort levels with speaking in class. If you have any issues with actively participating in the class discussions, please talk to us about it privately.

There are many ways to participate that count towards your participation grade. For example, asking questions on Canvas via Ed Discussion, responding to other students' questions in that forum, and posting articles or websites that supplement course material. We place particular weight on your answering of other students' questions and posting notes to encourage deeper engagement with the course material.

Case Assignments

There will be several case assignments during the semester. For each case, student groups will respond to pre-class discussion questions posted on Canvas under Assignments. Some of the pre-class case questions involve data analysis

and do not have a unique answer as they depend on how one interprets and uses the data and other information in the case. Our expectation is that you and your group will respond thoughtfully to the questions, giving reasonable justification for your answers. High quality pre-class responses are supported with qualitative and/or quantitative analysis based on logic and marketing concepts. Your responses must be submitted on Canvas.

The case method is one of the most effective means of sharpening your decision-making abilities. A case discussion requires that you be an active participant in resolving a marketing problem. The assigned cases are intended to give you practice in assembling and analyzing data to support a decision. The discussion format provides you with an opportunity to argue your position and to learn from others by listening to their comments, analysis, and criticism. You will learn the most from the cases if you and your classmates prepare and participate fully. You all have different experiences, insights and opinions, and a great deal of what you will learn from the cases will be from each other. It is therefore essential that you be fully prepared for all the cases.

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Midterm Exam

The midterm exam will be designed to test your understanding of the topics covered in the lectures, readings, and cases. The exam covers the first half of the course (i.e., Sessions 1 to 12). It will be administered in the midterm exam period. The best way to prepare for the exam is by attending classes, doing the reading and case assignments, and completing the concept checks. You will be permitted to access selected resources (pdf, word doc) or bring printed/handwritten notes to the exam, and allowed to use simple, non-scientific calculators (the basic calculator application on computers). During the exam, you will not be allowed to look for outside resources or use a search engine.

Group Project Overview

The group project is a major component of the course both in terms of helping you learn research (by doing it) and in its weight in your course grade. Groups of 4-5 students will work together on the project. The professors will meet with groups individually, usually via Zoom, outside of class throughout the semester to discuss their progress on their projects. Generative AI will be a component of your projects, and we will survey you at the start of the course and at the end to gauge your experience with it on your projects. In addition, student groups should keep a diary of their generative AI experiences and reflect them in their project presentations and write-ups. If you do not wish to participate in the survey or your group diary, you may opt out by notifying the teaching team. Opting out will not impact your course grade.

On the first day of class, multiple companies will pitch their market research needs to you. Students will select the companies they want to work with, and groups will be formed by the teaching team based on preferences and an objective of a balance of skills in the groups.

The steps for the group project follow. Refer to the class schedule below for timing of this project's assignment phases.

- First, after deciding on your project focus and having initial discussions with your client (the contact of the venture), you will write a short proposal based upon guidelines provided in the first class. Your proposal should succinctly describe the marketing problem you will be focusing on and outline questions that arise out of it. You should think about the types of data that would be required to answer those questions. Your proposal should incorporate supporting data from secondary research available online as well as information provided by your client company. We require the use of generative AI tools, e.g., ChatGPT and Google Bard, with the caveat that you must be cognizant of errors sometimes produced by AI. From these initial data, you will have a sense of your market, e.g., size, target customers, etc., all of which should be included in your proposal. This information will be refined as you move forward in the course. Make sure you address all of the proposal elements discussed in class and posted on Canvas. Your proposal should be 4 to 6 PPT slides.
- Second, after consultation with the professors about your proposal – including brainstorming about the scope of your project and the best ways to conduct your research – you will refine your research plan to include one qualitative and quantitative project.
- Third, you will execute your research plan using techniques that you have learned in the course. We strongly recommend that you field your qualitative research before your quantitative study. You will:
 - Conduct one qualitative study, e.g., focus groups, IDIs, ethnographies, and analyze your findings
 - Conduct one quantitative study, e.g., survey or alternative quantitative data collection/analysis, and analyze your findings

Your group will discuss these phases as you develop them with the professors. Be sure your plan incorporates generative AI tools, being cognizant of possible AI errors and that you do not rely too heavily upon it.

- Finally, your group will write a final report of about 20 PPT slides (with an appendix) that will include your methods, findings, insights, and recommendations, as well as supporting materials, e.g., qualitative research guide, survey questionnaire and your findings, e.g., quotations from interviews, photos/videos, data file, code, and other material developed for the project. On the last day of the semester, your group will present a summary of your report to the class and your client, who typically attend our final class. A critical point-of-view on any generative AI tools you applied must be incorporated in your final report. The group AI diary must be appended.

Note: You will be evaluated more for the effort you put into the group project than for your ability to solve the problem given your time and budget-constraints.

As indicated above, you will **grade your group members** on their effort and cooperation for this project. Individual project grades will be adjusted up or down depending on the evaluations. We will also adjust the project grade based on our **perception** of your effort on behalf of the group. It is to your benefit to be involved when your group meets with us to discuss the project and to make us aware of your contributions to the group project along with any issues that arise in your group cooperation.

Classroom Etiquette

Your participation grade will be based on:

Attendance: You must **be present in class, on time, and prepared**. Given that engagement is central to your learning, missing class sessions without an excuse will lower your grade. Students arriving in class more than 10 minutes late will be marked “Late.” Students arriving more than 20 minutes late should refrain from entering the classroom and will be marked “Absent” unless acceptable reasons for tardiness are provided to the teaching team.

Participation: We expect you to contribute to the learning of your classmates in class discussions. Good participation is defined as:

- On time and fully present, e.g., attentive, in the class
- Actively participating in class discussions, pulling in insights from readings
- When guests are present, be respectful and ask thoughtful questions
- Device usage (phones, laptops, etc.) is not allowed unless directed for an in-class activity.

Guidelines for Using Generative AI in this Course

You may use generative AI tools for your work in this course, but only in the ways the professors have specified. When you use any of these tools, you must include a citation describing how you used them to generate your response to the assignment.

Here are a few specific guidelines (generated by [Claude](#)) for using AI for market research:

- Be transparent about using AI - Disclose that you are using an AI assistant for your market research and explain its capabilities and limitations. This builds trust with your audience.
- Use AI ethically - Do not try to pass off AI-generated text as your own original work. Make sure the AI is not scraping copyrighted material without permission.
- Verify the accuracy of AI outputs - AI can sometimes generate plausible but incorrect or biased information. Double check any statistics, data points, or analytical conclusions provided by the AI.
- Leverage AI to augment your research, not replace it - Use AI as a helpful tool to gain insights and generate hypotheses, but still build your understanding through traditional research methods like surveys, interviews, focus groups, etc.
- Focus the AI on narrow, specific questions - Broad, open-ended prompts will lead to vague or meaningless answers from AI. Ask clear, focused questions tailored to your research goals.
- Combine AI with human creativity - AI lacks human judgment, values and innovative thinking. Use AI outputs as inspiration, but apply your own critical thinking.
- Understand the data used to train the AI - Results will be skewed if the AI is trained on limited or biased datasets. Ask about its training data.
- Watch for inaccuracies about recent events - AI models have limited knowledge about the latest breaking developments that may impact research.

Class Schedule

Session	Topics	Readings/Cases/ Guest Speakers	Assignments
1 Tuesday Sept 5	Course overview Guest Speaker on Generative AI: Guest Speaker: Rajan Sambandam, TRC Market Research	Read: <ul style="list-style-type: none"> • Big Data and Talking to Humans • Ethan Mollick: Superhuman: What can AI do in 30 minutes? Optional Readings:	<ul style="list-style-type: none"> • Complete first survey on perception of AI’s value for marketing research

		<ul style="list-style-type: none"> • Language Models for Automated Market • Research Using ChatGPT for Market Research 	
2 Thursday Sept 7	Companies pitch for course project Research problem definition	Read: <ul style="list-style-type: none"> • Backwards Marketing Research 	<ul style="list-style-type: none"> • At the end of class, submit your project preferences using link • Group assignments TBA before next week's class •
3 Tuesday Sept 12	Using market research for developing a marketing strategy	<ul style="list-style-type: none"> • Case: Layla's Delicacies 	<ul style="list-style-type: none"> • Respond to Layla's Delicacies case on Canvas • Schedule Zoom meeting via posted schedule with professors to discuss your group project
4 Thursday Sept 14	Market definition Statistical sampling	Read: <ul style="list-style-type: none"> • MD, Chapters 11-12 	<ul style="list-style-type: none"> • Group project proposal
5 Tuesday Sept 19	Qualitative research for insight and segmentation Focus Groups & In-depth Interviewing	<ul style="list-style-type: none"> • Case: All Nutrition (A) Read: <ul style="list-style-type: none"> • BFK, Chapter 1-3 Optional Video: Conducting Focus Groups	<ul style="list-style-type: none"> • Respond to All Nutrition (A) case on Canvas
6 Thursday Sept 21	Segmenting customers Cluster analysis	Read: <ul style="list-style-type: none"> • MD, Chapter 20 	<ul style="list-style-type: none"> • Create qualitative research plan and discuss with Prof. Morais • Market segmentation concept check (optional; after class)
7 Tuesday Sept 26	Quantitative research for segmentation Survey design	Read: <ul style="list-style-type: none"> • Case: All Nutrition (B) Optional Reading: <ul style="list-style-type: none"> • MD, Chapter 10 • How to Design a Product Survey (on Canvas) 	<ul style="list-style-type: none"> • Respond to All Nutrition (B) case on Canvas
8 Thursday Sept 28	Customer Journey Mapping	Read: <ul style="list-style-type: none"> • https://tinyurl.com/2e3pm6uw • https://tinyurl.com/2wsj9tyf 	<ul style="list-style-type: none"> • Field qualitative research after this class; incorporate CJM

9 Tuesday Oct 3	Product Positioning Consumer ethnography Mixed qualitative approaches to positioning	Read: <ul style="list-style-type: none"> • BFK, Chapters 4-5 • MD, Chapter 21 (pp. 681-688) Optional Reading: <ul style="list-style-type: none"> • Inspiring Brand Positionings with Mixed Qualitative Methods: A Case of Pet Food 	<ul style="list-style-type: none"> • Positioning concept check (optional; after class)
10 Thursday Oct 5	Factor Analysis	Read: <ul style="list-style-type: none"> • MD, Chapter 19 	<ul style="list-style-type: none"> • Before this class, email draft quantitative survey to professors and TA
11 Tuesday Oct 10	Discussion on students' early experience with AI in market research Q&A Panel		<ul style="list-style-type: none"> • Schedule Zoom meeting with professors and TA for feedback on survey design
12 Thursday Oct 12	Regression analysis	Read: <ul style="list-style-type: none"> • MD, Chapter 17 	<ul style="list-style-type: none"> • Continue qualitative research • Regression concept check (optional; after class)
Midterm Exam Week		Midterm – Date TBA	
13 Tuesday Oct 24	Customer Relationship Management (CRM) and Multi-Channel Marketing	Read: <ul style="list-style-type: none"> • Case: Pilgrim Bank 	<ul style="list-style-type: none"> • Respond to Pilgrim Bank case on Canvas
14 Thursday Oct 26	Design and UX Research Consumer Anthropology: Duncan Hines	Read: <ul style="list-style-type: none"> • How to Ask Good UX Questions • MD, Chapter 19 Optional Reading: Toward a Pedagogy for Consumer Anthropology: Method, Theory, Marketing	<ul style="list-style-type: none"> • Field quantitative research survey
15 Tuesday Oct 31	Conjoint & Max Diff	Guest Speaker: Rajan Sambandam, TRC Market Research	
16 Thursday Nov 2	CRM Analytics Logistic Regression	Watch: Growth Marketing: Best Practices for Getting and Keeping an Au... (facebook.com)	<ul style="list-style-type: none"> • Submit qualitative research report on Canvas • Logistic regression concept check (optional; after class)

17 Thursday Nov 9	Digital marketing	Read <ul style="list-style-type: none"> Case: Star Digital 	<ul style="list-style-type: none"> Respond to Star Digital
18 Tuesday Nov 14	Text mining	Guest Speaker: Yegor Tkachenko	
19 Thursday Nov 16	Measuring willingness to pay for pricing decisions	Guest Speaker: Khaled Boughanmi, Cornell Read: Using Market Research to Assess Willingness to Pay for Pricing Decisions (on Canvas)	<ul style="list-style-type: none"> Submit quantitative research report on Canvas
20 Tuesday Nov 21	Market research ethics Market research trends	Read: <ul style="list-style-type: none"> https://tinyurl.com/52nkd2p Data Science and Ethnography 	
21 Tuesday Nov 28	AI and qualitative market research: Remesh	Guest speaker: Andrew Konya, Remesh	
22 Thursday Nov 30	Class discussion on students experience using AI in this course		
23 Tuesday Dec 5	Final Project Presentations: Part 1		<ul style="list-style-type: none"> Note: Schedule of presentations will be randomly assigned
24 Thursday Dec 7	Final Project Presentations: Part 2		<ul style="list-style-type: none"> Submit final group project report on Canvas Complete final survey on group experience with AI

Inclusion and Accommodation

At Columbia Business School we believe diversity strengthens any community or business model and brings it greater success. The School is committed to providing all students with equal opportunity to thrive in the classroom by providing a learning, living, and working environment free from discrimination, harassment, and bias on the basis of gender, sexual orientation, race, ethnicity, socioeconomic status, or ability. Students with documented disabilities may receive reasonable accommodations. Students are encouraged to contact [Columbia University's Office of Disability Services](#) for information and to register for services. Columbia Business School adheres to all community, state, and federal regulations as relate to Title IX and student safety.

Honor Code and Academic Integrity

The [Columbia Business School Honor Code](#) calls on all members of the School community to adhere to and uphold the notions of truth, integrity, and respect both during their time in school, and throughout their careers as productive, moral,

and caring participants in their companies and communities around the world. All students are subject to the Honor Code for all of their academic work. Failure to comply with the Honor Code may result in [Dean's Discipline](#).

Course materials (videos, assignments, problem sets, etc.) are for use in this course only. You may not upload them to external sites, share them with students outside of this course, or post them for public commentary without the instructors' permission.

August 28, 2023