

MODULE OUTLINE

Module Code : MKT4415G/MKT4761B
Module Title : Customer Analytics & Visualization
Semester : Semester I, AY2021/2022
Faculty : Dr Priyanka Shrivastava
Department : Marketing
Email : bizpriya@nus.edu.sg
URL : <https://bizfaculty.nus.edu.sg/faculty-details/?profId=631>
Office Hours : By Appointment

Overview

This course will provide students with a framework for creating data driven marketing strategies, tools and techniques to create, understand and then leverage customer data for making better marketing decisions (with respect to segmentation, targeting, positioning, forecasting and the 4Ps). Customer analytics is a process by which data from customer behavior is used to help make key business decisions via market segmentation and predictive analytics. Customer data based on browsing history and buying patterns is widely available. This staggering amount of data can be used to describe past buying behavior, predict future ones and prescribe new ways to influence future buying decisions made by customers. This course provides an overview of the field of analytics so that you can make informed business decisions.

Module Objectives

At the completion of this course, students will be able to:

1. Understand the importance of linking marketing activities to customer metrics.
2. Analyze customer information to create and calculate appropriate metrics and quantify its impact on the business' performance.
3. Successfully apply tools and analysis techniques to understand past behavior and predict future actions
4. Communicate key ideas about customer analysis techniques and drive key business outcomes

General Guide & Reading

You will be required to do some readings and/or watch videos before most of the classes. Materials will be made available in advance. You are not required to refer to any single textbook.

Assessment

Class Participation	15% (Individual)
Assignments (2 Assignments)	10% (Group based)
Case Presentation	15% (Group Based)
Mid-term Test	15% (Individual)
Final Project Presentation	30% (Group Based)
Final Test	15% (Individual)
Total	100%

Academic Honesty & Plagiarism

Academic integrity and honesty is essential for the pursuit and acquisition of knowledge. The University and School expect every student to uphold academic integrity & honesty at all times. Academic dishonesty is any misrepresentation with the intent to deceive, or failure to acknowledge the source, or falsification of information, or inaccuracy of statements, or cheating at examinations/tests, or inappropriate use of resources.

Plagiarism is “the practice of taking someone else’s work or ideas and passing them off as one’ own” (The New Oxford Dictionary of English). The University and School will not condone plagiarism. Students should adopt this rule - You have the obligation to make clear to the assessor which is your own work, and which is the work of others. Otherwise, your assessor is entitled to assume that everything being presented for assessment is being presented as entirely your own work. This is a minimum standard. In case of any doubt, you should consult your instructor.

Additional guidance is available at:

- <http://www.nus.edu.sg/registrar/administrative-policies-procedures/acceptance-record#NUSCodeofStudentConduct>
- <http://nus.edu.sg/osa/resources/code-of-student-conduct>

About Me

In 2009, after close to four years in corporate marketing, I returned to graduate school at the AMU, India to pursue PhD. I have more a decade long teaching experience in India and USA. My research interests are new service innovation, customer relationship management and co-creation. My research is published in the various academic journals. Prior to pursuing my PhD, I completed an MBA and have an undergraduate degree in Engineering. What I love most about marketing is that many organizational challenges and successes can be examined through the lens of marketing strategy. And, what I love most about teaching is getting to know my students, share in their successes and watch how their careers and academic lives evolve. I love spending time with my two children and enjoy doing Yoga & Meditation in my free time.

Tentative Course Outline and Schedule of Lectures and Assignments

Week	Topic	In-class discussions and exercises	Assignment & Due date
1	Overview of Marketing Analytics & Introduction to Customer Analytics & Visualization	<ul style="list-style-type: none"> • Foundational Marketing Analytics Tools • Dividing students in clusters • Build a relational database 	
2	Understanding customers using data	<ul style="list-style-type: none"> • Customer Data Visualization • Building story boards • Marketing Mix modelling • Application of logistic regression 	
3	Choosing the right customers	<ul style="list-style-type: none"> • Analytics of Segmentation, Targeting and Positioning • Exercise on Cluster Analysis • Exercise on Six Steps of the analytics of STP 	Assignment 1: Working exercise on the six steps of the analysis of STP
4	Growing Customers	<ul style="list-style-type: none"> • Customer lifetime value Analysis • Rosewood Hotel Case Study • Customer Relationship Marketing 	Coming prepared for in-class case discussion Group 1, 2, 3 presenting the case
5	Giving Customers right choice	<ul style="list-style-type: none"> • Discuss cases of field experimentation using A/B Testing • Simulate an experiment. • A/ B Testing Vungle Case Study 	Coming prepared for in-class case discussion Group 4, 5, 6 presenting the case
6	Retaining Right Customers ** Mid-term Test**	<ul style="list-style-type: none"> • Customer Churn Modelling 	*** Assignment 1 submission due date***
Recess Week			
7	Strategies for getting and growing customers on online platforms	<ul style="list-style-type: none"> • Understanding Digital Marketing Metrics • Airbnb, Etsy, Uber: Growing from One Thousand to One Million Customers 	Coming prepared for in-class discussion Group 7, 8, 9 presenting the case
8	Buyer Persona Case Study	<ul style="list-style-type: none"> • Demographics Dashboard Overview • Visualizing Demographics • Building KPI indicators Sales Analysis Visualizations 	Assignment 2 released
9	Email Marketing Analysis	<ul style="list-style-type: none"> • Email Marketing Dashboard • Treemap • Click Through Rate Bar chart • Time and Day Heatmap 	

Week	Topic	In-class discussions and exercises	Assignment & Due date
10	Marketing Impact Analysis	<ul style="list-style-type: none"> • Introduction to Promotion Impact Dashboard • Promotional Calendar • Building Promotional Dashboard 	
11	AI for customers	<ul style="list-style-type: none"> • Conway's Game of Life • Deep learning Akinator activity 	*** Assignment 2 submission due date***
12	Final Project Presentations		
13	Final Test		

Disclaimer for students: The above schedule may change due to factors beyond my control, by mutual agreement, and/ or to ensure better student learning