



**XAVIER INSTITUTE OF MANAGEMENT, BHUBANESWAR**  
**MARKETING ANALYTICS**

Credits	2
Faculty Name	Dr. Presht Bhardwaj and <i>Visiting Faculty</i>
Program	MBA - BM
Academic Year and Term	(2020-21) [Term IV]

**1. Course Description:**

In today's world, there is an unprecedented volume, velocity, and variety of marketing data available to firms. It is essential to learn how to use and interpret data for marketing decision-making. Marketing Analytics is the art and science of developing and utilizing marketing decision models to plan, implement, and analyze marketing strategies and tactics. It is an application of data science to marketing decision problems. In the era of Big Data, knowledge of marketing analytics is required to help organizations understand customers and competitors in a better way. This course will focus on developing marketing strategies and resource allocation decisions driven by analysis. Since marketers need more than concepts to fully make use of varied rich data available to them, this course will help students acquire analytical skills that can be applied to real world marketing problems. Course objectives are:

- **To help students understand how analytical techniques and quantitative models can enhance marketing decision-making**
- **To educate student how we can convert data and information to marketing insights and decisions**

**(1.1) Pedagogy:**

This course embraces the principle of learning by doing. The course requires use of case method of instruction to make students understand how to deal with real-life marketing problems and how to use analytics to solve them. The instructors will use a combination of cases, lectures, and

a hands-on project to help students learn marketing analytics. The course will also expose students to a number of examples of the successful use of marketing analytics. The in-class data analysis exercises require use of various software packages.

### **(1.2) Course pre-requisites:**

This course requires the students to have a basic understanding of marketing core concepts, marketing research and business statistics. The course will help students to be data-literate, even if they do not want to specialize in analytics. If you are unclear about the course, contact the professor.

### **(1.3) What this course is not:**

Marketing analytics is a broad umbrella and a wide range of analyses/areas come under it. This course is not focusing on a specific marketing strategy deeply. Rather, in the 14 sessions you will learn a wide range of strategies, models and analytics approaches, and use different tools. Any live marketing analytics campaign will not run in the course. It is not a statistics course. Basic understanding of statistics is required. The course will equip you with new technical skills to solve marketing problems.

## **2. Student Learning Outcomes:**

By the end of this course, participants should:

- **Be able to understand the importance of marketing analytics in business decision making**
- **Become confident and conversant with the new and unique analytical techniques that are used in marketing**
- **Be able to gain insight from the analysis of data and to recommend an appropriate course of action**

## **3. Required Text Books and Reading Material:**

No standardized textbook will be recommended in this course. The following textbooks are recommended as reference. Different articles and cases will be provided to students as the course will progress.

#### Additional Reference books:

- “*Multivariate Data Analysis*”, Joseph F. Hair, Jr, William C. Black, Barry J. Babin, and Rolph E. Anderson, 8th ed., Cengage Learning, 2018.
- “*An Introduction to Multivariate Statistical Analysis*”, T.W. Anderson, 3rd ed., John Wiley & Sons, 2009.
- “*Getting Started with Data Science*”, Murtaza Haider, 1st ed, Pearson Education India, 2016.
- “*Big Data in Practice*”, Bernard Marr, John Wiley & Sons, 2016.
- Additional handouts/case studies will be provided during the course.

#### 4. Tentative Session Plan

Session No.	TOPICS	READING & METHODS OF INSTRUCTIONS
1	<b>Introduction to marketing analytics</b> <b>Objectives:</b> - To develop the analytical mindset - The understanding of Big Data - Resource allocation	<b>R: Big Data: The Management Revolution</b> <b>MoI: Lecture and Case analysis</b>
2-3	<b>Product analytics</b> <b>Objectives:</b> -To discuss the Segmentation and Product Positioning - Product Optimization - New product decision: analysis	<b>MoI: Case analysis</b>
4-6	<b>Marketing-mix analytics</b> <b>Objectives:</b> To understand: <ul style="list-style-type: none"><li>• Marketing Mix Allocation</li><li>• Pricing models</li><li>• Advertising Strategy Testing</li></ul>	<b>MoI: In-class exercise and Case analysis</b>
7-9	<b>Customer analytics</b> <b>Objectives:</b> To learn: <ul style="list-style-type: none"><li>• Discovering Consumer Insights: qualitative and quantitative methods</li><li>• Customer survey: Demand Forecasting and Market share analysis</li></ul>	<b>MoI: In-class exercise and Case analysis</b>
10	<b>Retail analytics</b> <b>Objectives:</b> To learn: <ul style="list-style-type: none"><li>• Retail optimization models</li><li>• Consumer Choice behaviour</li><li>• Campaign optimization</li></ul>	<b>MoI: In-class exercise and Case analysis</b>
11-12	<b>Analytics in online marketing</b> <b>Objectives:</b> To learn <ul style="list-style-type: none"><li>• Consumer data mining</li><li>• Online experiments</li><li>• Social Listening</li></ul>	<b>R: How companies are using big data and analytics</b> <b>MoI: In-class exercise and Case analysis</b>

	• Sentiment analysis and other approaches	
<b>13-14</b>	Course Wrap-up Project Presentation and Submission	

[**Note: R** = reading (articles), **MoI** = Method of instruction. In different sessions, various statistical softwares will be used.]

## 5. Evaluation:

<b>Components</b>	<b>Weightage (in %)</b>
Class Participation and In-class Exercise	25
Group Project Submission and Presentation	35
End Term Examination	40
<b>Total</b>	<b>100</b>

### Group Project Submission and Presentation

To get a first-hand feel of the discipline of Marketing analytics, a project work is required to be done by participants. It is a group-project. Groups need to select a marketing problem, collect and clean data, apply an analytic method, and recommend a course of action. Groups can choose to work with industry for their project (live).

## 6. Academic Integrity

You are expected to maintain discipline in the class and not indulge in any disruptive activities during the sessions. Students involved in academic dishonesty will receive a zero mark on the particular component in which the violation occurred. Focus is on authenticity. Kindly refer to manual of policy for code of conduct.

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