



# **MARKETING ANALYTICS**

## **23MBPE691**

**(COURSE HANDBOOK)**

**MBA**

**COURSE HEAD:**  
Assistant Professor Ramya Bharadwaj B S

## 1. GENERAL INFORMATION

Welcome to the course on "Marketing Analytics"!

The Marketing Analytics course is designed to equip students with the knowledge and tools required to analyse and interpret marketing data for better decision-making. In today's data-driven world, companies are increasingly relying on analytics to optimize their marketing strategies. This course introduces students to various analytical techniques used to understand consumer behaviour, develop targeted marketing strategies, and maximize the effectiveness of pricing, promotions, and customer interactions. By delving into key topics like customer segmentation, price optimization, and promotional analytics, students will gain hands-on experience in extracting meaningful insights from marketing data to drive business success.

Throughout the course, students will explore essential concepts such as conjoint analysis, customer value analysis, and exploratory data analysis. They will learn how to apply advanced analytical techniques like market basket analysis, recommender systems, and sentiment analysis to uncover consumer preferences and trends. Special attention will be given to pricing analytics, where students will learn how to implement strategies such as price bundling, markdown pricing, and revenue management to optimize profits. Promotion analytics will also be a key area of focus, equipping students with the skills to measure advertising effectiveness and leverage platforms like Google AdWords to improve marketing spend.

By the end of the course, students will have a deep understanding of how analytics can be applied across various facets of marketing. They will be able to use data-driven insights to make informed decisions about product pricing, promotional activities, and customer relationship management. This course will provide students with both the technical knowledge and strategic thinking required to thrive in a rapidly evolving marketing landscape, making them valuable assets to any organization looking to enhance its marketing capabilities.

### 1.1.Course Objectives

- **Marketing Data Analytics :** Impart knowledge on analytical techniques in marketing data
- **EDA for Marketing:** Provide insights of consumer value analysis and exploratory data analysis for the marketing data
- **Pricing & Promotion with Analytics:** Familiarize with usage of analytics to optimize pricing strategies and measure promotional effectiveness.

### 1.2.Course Outcomes

- **CO1:** Summarize the application of analytics in marketing
- **CO2:** Apply pricing and promotion analytics to optimize revenue and marketing spend
- **CO3:** Make use of consumer data and Conduct exploratory data analysis of marketing data.

### 1.3.Set Text and Suggested Sources

All the below mentioned books are available in the 1st Floor Library.

#### Key Text Books:

1. Moutusy Maity & Pavankumar Gurazada,” Marketing Analytics for strategic decision making”, 1st Edition Oxford University Press, 2021.
2. Seema Gupta &Avadhoot Jathar, “Marketing Analytics”, 1st Edition, Wiley, 2021

#### Reference Books:

1. Hair, J., Harrison, D.E., and Ajjan, H.,“Essentials of Marketing Analytics” 1st Edition MCGraw Hill, 2022.
2. Lillien, G.L., Rangaswamy, A., and De Bruyn “Principles of Marketing Engineering and Analytics” 3rd Edition, DecisionPro, 2017.

### 1.4.Self-Study Course

In this course, students can enrol for the course [“Marketing Analytics”](#) offered by NPTEL SWAYAM which would be a value addition to their resume after 4<sup>th</sup> Semester.

Note: The above link directly leads to the courses to be undertaken by the students. Please register using the same links or stay logged in to be able to access the courses.

## 2. THE COURSE

### 2.1.Course Description

MARKETING ANALYTICS			
Semester	IV	CIE Marks	50
Course Code	23MBPE691	SEE Marks	50
Teaching Hrs/Week (L:T:P)	3:0:0	Exam Hrs	03
Total Hrs	42	Credits	03

The Marketing Analytics course designed to provide students with foundational knowledge in data analytics and its implementation in marketing data. The course will run for 13 weeks during Semester 4 and consists of 5 modules that cover essential topics in marketing data analytics. Each week includes 3 lectures, delivered by Professor of Practice, focusing on theoretical concepts, practical applications, and course-related activities. Spanning a total of 42 hours, this 3-credit course is assessed through Continuous Internal Evaluation (CIE) for 50 marks and a Semester-End Examination (SEE) for 50 marks, with 3-hour exam duration. This structure ensures a balanced and engaging learning experience for students.

## 2.2. Initiating Contact with Staff and Other Students

We encourage open communication and value your inquiries about the Course. However, given the large number of students in this course, we encourage that you use email and office hours faculty or any other forms of correspondence thoughtfully. Before reaching out with administrative questions, please check if your query has already been addressed in previous communications or in the materials provided in this handbook and on our website. Additionally, we encourage you to engage with your peers for discussions and collaborative learning, as this will enhance your understanding of the course material and foster a supportive academic community.

## 2.3. Resources

Resources include digital libraries, e-learning platforms, and research databases, providing students with anytime, anywhere access to academic materials and interactive courses.

Students can access various resources on the college website, including the VTU Consortium, NPTEL, and NDLI, offering e-books, research papers, and video lectures for flexible learning.

To access digital library and e-learning tools, Visit <https://mite.ac.in/> (Campus Life > Library > VTU Consortium/e-learning platforms/additional sources).

## 2.4. Staff

Course Convenor: Ramya Bharadwaj B S  
Cabin: 3<sup>rd</sup> Floor, PG Block  
Email: [ramya@mite.ac.in](mailto:ramya@mite.ac.in)

## 2.5. Topics and Reading materials for each module

<b><u>Module 1</u></b>	<i>No. of Hours: 8</i>
<ul style="list-style-type: none"><li>- <b>Topic: Introduction to Marketing Data</b><ul style="list-style-type: none"><li>o Includes Customer value and conjoint analysis</li><li>o Analytics for customer segmentation and targeting</li><li>o Analytics for product design</li></ul></li><li>- <b>Essential Readings:</b><ul style="list-style-type: none"><li>o Seema Gupta &amp; Avadhoot Jathar, “Marketing Analytics”, 1st Edition, Wiley, 2021, Chapter 1.</li></ul></li><li>- <b>Additional Reading:</b><ul style="list-style-type: none"><li>o Hair, J., Harrison, D.E., and Ajjan, H., “Essentials of Marketing Analytics” 1st Edition McGraw Hill, 2022, Part 1, Chapter 1.</li></ul></li></ul>	
<b><u>Module 2</u></b>	<i>No. of Hours: 8</i>
<ul style="list-style-type: none"><li>- <b>Topic: Pricing Analytics</b><ul style="list-style-type: none"><li>o Linear and non-linear pricing</li><li>o Price optimization through Analytics</li><li>o Revenue management</li></ul></li></ul>	

- **Activities:**
  - Students will work in groups to come up with a presentation on building a price optimization model using Excel or Python with linear regression.
- **Essential Reading:**
  - Seema Gupta & Avadhoot Jathar, “Marketing Analytics”, 1st Edition, Wiley, 2021, Chapter 5.
- **Video Resource:**
  - Price optimization & Profitability Analytics:
  - <https://www.youtube.com/watch?v=DBr8sChu6gU>

### **Module 3**

*No. of Hours: 10*

- **Topic: Promotion Analytics**
  - Marketing mix models and advertising models
  - Recommender system
  - Market basket analysis and RFM analysis
  - Media selection model.
- **Activities:**
  - Students will form teams and will be choosing few companies and then create an interactive dashboard with media metrics, campaign performance and optimization results.
- **Essential Reading:**
  - Seema Gupta & Avadhoot Jathar, “Marketing Analytics”, 1st Edition, Wiley, 2021, Chapter 6.
- **Video Resources:**
  - Recommender system for Digital Advertising:
  - <https://www.youtube.com/watch?v=96HudrBW3rU>

### **Module 4**

*No. of Hours: 8*

- **Topic: Consumer Value Analysis**
  - Making decision by marketing data
  - Customer churn & customer lifetime value
  - Text mining and sentiment analytics
  - Analysing customer reviews
- **Activities:**
  - In groups, students will be identifying and presenting case studies on brands that successfully used sentiment analysis, twitter analysis etc and benefitted from it.
- **Essential Reading:**
  - Seema Gupta & Avadhoot Jathar, “Marketing Analytics”, 1st Edition, Wiley, 2021, Chapter 7 and 8.
- **Video Resources:**
  - Text mining and sentiment analytics:
  - <https://www.youtube.com/watch?v=OumgFnQE5dE>
  - <https://www.youtube.com/watch?v=B8LX5XqgnJw>

**Module 5***No. of Hours: 8*

- **Topic: Exploratory Analysis for Marketing Data**
  - Text Mining and Product Innovation Management
  - Social Network Analysis for Marketing
  - Item exploration Exploratory Factor Analysis and Cluster Analysis
  - Compare the Sales Performance.
- **Activities:**
  - Students will form teams and collect data (website activity, campaign response etc), clean the data and will analyse the data. They have to follow the “Story telling with data” way of explanation to present the analysis.
- **Essential Reading:**
  - Seema Gupta & Avadhoot Jathar, “Marketing Analytics”, 1st Edition, Wiley, 2021,
- **Additional Reading:**
  - “Analytics of social media data – State of characteristics and application”, Cécile Zachloda, Olga Samuel a, Andrea Ochsner b, Sarah Werthmüller a, Journal of Business Research, 2022:
    - <https://www.sciencedirect.com/science/article/pii/S0148296322001321>

**3. ASSESSMENT**

The assessment for the Marketing Analytics course module is divided into two components: Continuous Internal Evaluation (CIE) and Semester End Examination (SEE), each accounting for 50% of the total marks.

**Continuous Internal Evaluation (CIE)** consists of two internal tests, scheduled for the 8th and 14th weeks, contributing a total of 30% to the overall marks. Students can earn the other 20% through assignments, which includes presentation on Campaign Optimization – 10 Marks and presentation with EDA – 10 Marks.

**Semester End Examination (SEE)** constitutes the remaining 50% of the total marks. Key information regarding examination dates and related details can be accessed via the college website (Academics and Courses section > Calendar of Events > PG Even Sem).

**Rubrics for Other Assessment (Total: 20 Marks / 40% of CIE)**

Both Presentations: Campaign Optimization and EDA – 10 Marks each				
Presentation	Subject Knowledge	Research	Usage of Tools	Q&A
2 Marks	2 Marks	2 Marks	2 Marks	2 Marks