

DSSEC356 Marketing and Retail Analytics

Semester: V	Course Title: Marketing and Retail Analytics	Credit:2
CourseCode: DSSEC356		(1 T + 1 P)

Course Outcomes: On successful completion of the course the learner will be able to

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	REMEMBERING	Recall fundamental concepts, tools, and metrics used in marketing and retail analytics.
CO2	UNDERSTANDING	Explain data-driven techniques for customer segmentation, campaign analysis, and retail decision-making.
CO3	APPLYING	Implement clustering, association rule mining, and forecasting methods for marketing and retail datasets.
CO4	ANALYSING	Analyze customer behavior, sales trends, and product performance to derive actionable insights.
CO5	EVALUATING	Assess campaign performance, pricing strategies, and inventory efficiency using analytics techniques.
CO6	CREATING	Design and develop dashboards and reports for comprehensive marketing and retail analytics projects.

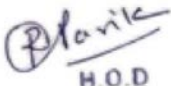
	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	1	1	-	-
CO2	2	2	-	1	-
CO3	1	2	2	-	-
CO4	1	2	3	2	1
CO5	1	2	3	1	1
CO6	1	2	3	2	2

Unit No.	Detailed Syllabus	Teaching Hours
I	Marketing Analytics Tools & Techniques Data Collection & Preparation: Importing datasets from CSV, Excel, Google Sheets; Data cleaning and preprocessing for marketing data. Customer Segmentation : RFM (Recency, Frequency, Monetary) analysis; K-means clustering for customer groups. Campaign Performance Analysis: Email and digital campaign KPIs; CTR, conversion rate, ROI calculations. Market Basket Analysis : Association rule mining (Apriori, FP-Growth) for cross-selling. Marketing Metrics Dashboards: Creating visual dashboards in Excel, Tableau, or Power BI.	15

II	Retail Analytics & Decision-Making: Sales Data Analysis: Identifying trends, seasonal patterns; Forecasting sales using time series methods. • Product Performance Analysis :ABC analysis, product life cycle tracking. • Pricing & Profitability Analytics :Price elasticity calculation; Margin And discount optimization. • Inventory & Supply Chain Analytics: Inventory turnover, stock-out analysis; Demand forecasting. • Case Study & Mini Project (Compulsory): End-to-end retail analytics project using real/simulated data (data import → cleaning → analysis → dashboard /report).	15
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Suggested Reference Books:

1. **Marketing Analytics: Strategic Models and Metrics** –Stephan Sorger, Pearson,2013.
2. **Data Science for Marketing Analytics**–Tommy Blanchard, Packt Publishing,2021.
3. **Retail Analytics: The Secret Weapon**–Emmett Cox, Wiley, 2011.
4. **Marketing Analytics: A Practical Guide to Real Marketing Science** –Mike Grigsby, Kogan Page, 2015.
5. **Competing on Analytics: The New Science of Winning** –Thomas H. Davenport & Jeanne G. Harris, Harvard Business Review Press, 2017.


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