



MBA DEGREE EXAMINATIONS: NOV /DEC 2024

(Regulation 2021)

Third Semester

MASTER OF BUSINESS ADMINISTRATION

P21MBE0142: Technology for Marketing Decisions

COURSE OUTCOMES

CO1: Demonstrate a comprehensive knowledge of the existing technology options for making several marketing decisions and their real-life business applications.

CO2: Explain how technology can complement human efforts in the acquisition and retention of customers.

CO3: Develop a comprehensive Marketing Strategy integrating the application of the right technological tools for addressing the unmet market needs.

Time: Three Hours

Maximum Marks: 100

PART A (20Q x 1M = 20 Marks) Objective Type Questions only

- | | | | |
|----|---|-----|-------------------|
| 1 | Name any one AI tool that can support a systematic review of past literature in any of the marketing research. | CO1 | [K ₁] |
| 2 | Name the algorithm used by market basket analysis to identify patterns in product combination bought together. | CO1 | [K ₁] |
| 3 | What term describes a virtual replica of a physical object or system used for real-time simulation and optimization? | CO1 | [K ₁] |
| 4 | List an Ideal Customer Profile for GE 's MRI scan machine. | CO1 | [K ₁] |
| 5 | How does the CTA influence customer behaviour in advertisements? | CO1 | [K ₁] |
| 6 | What is Quantum Computing? | CO1 | [K ₁] |
| 7 | Sales Revenue = (30) + (0.82)*Campaign 1 – (0.6)*Price .
Interpret the Beta Coefficient of 0.82 in this Regression model. | CO1 | [K ₂] |
| 8 | Explain Gestalt theory. | CO1 | [K ₂] |
| 9 | Define Sales Cycle Length. | CO1 | [K ₁] |
| 10 | Explain Lead-to-Opportunity Ratio. | CO1 | [K ₂] |
| 11 | What are the major aspects covered in KRA s for digital marketing. | CO1 | [K ₁] |
| 12 | List the consulting specialization of PricewaterhouseCoopers. | CO1 | [K ₁] |
| 13 | What does acronym MBB stand for in the context of consulting firms. | CO1 | [K ₁] |
| 14 | Name any two data visualization tools. | CO1 | [K ₁] |

- 15 Outline Google looker . CO1 [K₂]
- 16 Contrast Cluster and Discriminant Analysis in the context of Marketing Analytics. CO1 [K₂]
- 17 Explain “M” in RFM score. CO1 [K₂]
- 18 What does a hotter and cooler place indicate in a heat map? CO1 [K₁]
- 19 Name any two firms have Immersive Experience showrooms in India. CO1 [K₁]
- 20 Contrast CX and DEM. CO1 [K₂]

PART B (4Q x 5M = 20 Marks) Answer Any Four Questions only

- 21 Examine the changing orientations in Marketing in supplementing the human efforts to address the new challenges. CO2 [K₄]
- 22 Explain, CTR, Churn Rate and Cannibalization Rate. CO2 [K₅]
- 23 Explain the use of AI in e CRM with a use case. CO2 [K₄]
- 24 Explain the applications of Quantum Computing in the field of Marketing. CO2 [K₂]
- 25 Examine the key steps in A/B Testing. CO2 [K₄]

Part – C (3Q*20M=60 marks) Answer Any Three Questions only

- 26 A study was conducted on 25 Middle Income Group House Holds with the Chief Wage Earner in the state capital to assess their purchase intention for small car from Maruthi India. The questions used for the analysis along with the data is given below ((Note: 5 = SA & 1 = SD) CO3 [K₆]

- I1: India has achieved technological standard of High order
 I2: I prefer to buy things made in India
 I3: I usually buy things which provide value for money
 I4: Convenience is more important than style
 I5: I do not like wasteful expenditure
 I6: When it comes to safety, i believe there should be no compromises
 I7: I am a saver rather than a spender
 I8: I like to try new and different things
 I9: I always want to be part of changing world

Cluster Membership		
Case Number	Cluster	Distance
1	1	2.791
2	2	1.886
3	3	2.037
4	1	3.161
5	2	1.374
6	3	1.678
7	3	2.169
8	3	2.037
9	1	3.192
10	2	2.285
11	3	1.678
12	1	4.170
13	3	2.244
14	1	3.846
15	2	1.374
16	1	3.548
17	2	1.599
18	3	1.122
19	1	2.931
20	1	3.254
21	3	1.575
22	2	1.247
23	1	2.755
24	1	2.755
25	3	1.122

Agglomeration Schedule

Stage	Cluster Combined		Coefficients	Stage Cluster First Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
1	18	25	.000	0	0	6
2	6	11	.000	0	0	10
3	3	8	.000	0	0	17
4	1	24	1.000	0	0	11
5	17	22	2.000	0	0	9
6	18	21	3.000	1	0	7
7	7	18	3.333	0	6	17
8	16	20	4.000	0	0	13
9	15	17	4.000	0	5	12
10	6	13	4.000	2	0	18
11	1	23	4.500	4	0	15
12	5	15	5.333	0	9	14
13	16	19	6.000	8	0	21
14	2	5	6.500	0	12	19
15	1	4	6.667	11	0	20
16	12	14	7.000	0	0	22
17	3	7	8.500	3	7	18
18	3	6	9.222	17	10	24
19	2	10	9.600	14	0	23
20	1	9	11.000	15	0	21
21	1	16	14.133	20	13	22
22	1	12	17.625	21	16	23
23	1	2	43.567	22	19	24
24	1	3	56.063	23	18	0

K Means Clustering

Initial Cluster Centers

	Cluster		
	1	2	3
I think in India we have been able to achieve technological standard of High order	4.00	2.00	2.00
I prefer to buy things mane in India	5.00	1.00	2.00
I usually buy things which provide value for money	3.00	5.00	1.00
Convenience is more important than style	3.00	5.00	2.00
I do not like wasteful expenditure	3.00	5.00	1.00
When it comes to safety, i believe there should be no compromises	2.00	4.00	1.00
I am a saverrather than a spender	2.00	5.00	1.00
i like to try new and different things	1.00	1.00	5.00
i always want to be part of changing world	1.00	1.00	5.00
Average Linkage (Between Groups)	5	2	3
Average Linkage (Between Groups)	1	2	3
Average Linkage (Between Groups)	1	2	3
Average Linkage (Between Groups)	1	1	2

Final Cluster Centers			
	Cluster		
	1	2	3
I think in India we have been able to achieve technological standard of High order	4.40	2.17	2.00
I prefer to buy things made in India	4.70	1.67	2.22
I usually buy things which provide value for money	2.70	4.67	1.44
Convenience is more important than style	2.10	4.67	1.78
I do not like wasteful expenditure	2.80	4.33	1.00
When it comes to safety, I believe there should be no compromises	2.60	4.67	1.22
I am a saver rather than a spender	2.60	4.17	1.00
I like to try new and different things	1.20	1.50	4.78
I always want to be part of changing world	2.20	1.17	3.56
Average Linkage (Between Groups)	3	2	3
Average Linkage (Between Groups)	2	2	3
Average Linkage (Between Groups)	1	2	3
Average Linkage (Between Groups)	1	1	2

Create Customer Segments(10 marks) and Formulate Targeting Positioning Strategies(5+5 = 10 marks).

- 27 Appraise the applications of Big Data to improve decision-making in marketing by quoting case examples from retail transactions, call centres, email queries, internet searches, online reviews, social media posts. (5 marks for each touch) CO3 [K₆]
- 28 Assess the key modules of a customer relationship management software in streamlining customer interactions and relationships throughout their lifecycle. CO3 [K₅]
- 29 Appraise the applications of the following in enriching customer experience CO3 [K₆]
- Service robots, drones for delivery (6 Marks)
 - Facial recognition, neuro-signals capture system, eye tracker (8 Marks)
 - Block Chain Technology (6 Marks)
