KUMARAGURU
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MBA DEGREE EXAMINATIONS: APRIL / MAY 2023

(Regulation 2021)

Third Semester

MASTER OF BUSINESS ADMINISTRATION

P21MBE0141 : Marketing and Metrics and Analytics

COURSE OUTCOMES

CLO1 Demonstrate the fundamental conceptual knowledge about the concept of Marketing analytics.

CLO2 Provide insights on the practical aspects and to identify methods need to perform Marketing

Analytics

Time: Two Hours   **Maximum Marks: 50**

PART A (1 x 10 m = 10 Marks)

1

Bombay Sweets, Trichy				
Customer ID	Name	Recency (days)	Frequency (times)	Monetary (CLV)
1	Prabhakaran	30	16	3300
2	Paraman	2	10	1500
3	SenthilKumar	50	2	8000
4	Lakshmi	7	11	2600
5	Vijaya	6	9	5000
6	Bhupathy	4	7	4000
7	Gayathri	10	6	2420
8	Yaseen	15	5	2042
9	Vimala	6	4	1340
10	Thiagu	20	3	7520
11	Lovelin	30	3	890
12	Sathya	25	4	656
13	Uthra	18	3	692
14	Seetha	5	2	1076
15	Ramalingam	45	2	4200

CO2

$[K_5]$

1.a.Bombay Sweets in Trichy is keen to analyse its customers.
Explain Customer Profitability using RFM with the given output.(5marks)

1.b.Interpret on the business strategies for the hotel outlet based on this analysis. (5 Marks)

Answer All the Questions : PART B (5 x 4 marks = 20 Marks)

2   Pig iron is produced by the smelting of iron ore in blast furnaces with charcoal. It has high iron content with low residual metallic material which is a source of clean iron units. Foundry pig iron is suitable for iron castings used in general engineering, machine tools and parts for the automotive industry. Many foundries in Coimbatore are suppliers to the OEM of automobile parts. Dasth Foundries in Coimbatore has been a regular buyer of pig iron from Suman and Co. for the past 5 years. On an average Dasth Foundries purchases pig iron worth of INR 880000 annually. The sales person makes around 8 purchase related calls, a year but not bills every time. Atleast 2 of his purchase calls is only for an enquiry and makes a billing only 6 times out of the total purchase calls. Suman and Co. has a profit margin of 10 percent for pig iron sales to its regular buyers.   CO2   [K5]
    a. Explain the significance of customer life cycle. (2 marks)
    b. Estimate Customer Life Time Value for Suman and Co. (2 marks)

3   The market for microwave oven consists of six major players in the given table. Manger at Kenstar want to know their firm's market share relative to its largest competitor. Examine 3 firm concentration ratio and Herfindahl Hirschman Index in terms of revenue share that will help the management to take decision related to acquisitions. (5 marks)   CO2   [K4]

Market for Home Appliances – Washing Machine and Dryers	Units (Thousands)	Revenue (in US million Dollars) $
LG	54	22,000
Panasonic	39	11,000
Samsung	34	9,600
Kenstar	24	12,030
IFB	19	8,400
Philips	30	5,278
Market Total	**200**	**68,308***

4   Explain the application of data science in the context of making marketing decisions.   CLO1 [K2]

5   Examine the role and importance of Marketing Metrics in strategic marketing decisions.   CLO1 [K4]

6   The path of a stored file is "/content/nba.csv". Write down the algorithm on the Jupyter notebook   CLO1 K6

    a. to import the file and to display the table content
    b. to display the first five records of the table
    c. to display the last five records of the table
    d. to display any two sample records
    e. to create numeric sequence from 0to100 with 50 numbers

Answer any of the two Questions: PART C (2 x 10 = 20 Marks)

7   New product development is critical for the growth of any organisation and to keep up   CO2   [K₄]
the consumer changing expectation. Sowbagya Enterprises Private Limited with its
Corporate office located in T.Nagar, Chennai is a name well known for wet grinders
for the past four decades and is the first ISO certified company for wet grinders. Their
products cater to kitchen equipment needs of the domestic, commercial and hotel
industry. Their design team continuously keeps innovating and now has a great idea
for a new product – a dry spice grinding machine. The new dry spice grinder is batch
type that can be made available in both 500 grams and 1000 grams variants that is
suitable for small establishments, home-grinding and tablet powder making also.
Marketing department expects a repeat rate of 10 %. However, the tactical
management of the company had doubt regarding its market for home grinding. To
sell the idea internally they want to project the volume of sales they can expect over
the first year. A survey with the home makers in the households of Coimbatore,
Madurai, Trichy and Chennai yields the following results

% of Home makers Responding	
Definitely will Buy	40 %
Probably Will Buy	30 %
May/May not Buy	10 %
Probably Wont Buy	12 %
Definitely Wont Buy	8 %
Total	100 %

On this basis, company estimates a trial rate for the new equipment by applying the
house hold Kitchen Applicanes' industry standard expectation that

70 % of definites will buy
40 % of probables will buy the product if given the opportunity.

Marketers believe that they can generate awareness level equal to that of ACV which
is 70 %. Assume the target population of 10,000 households in the given market.
7.a. Examine the significance of key marketing metrics in business planning (5 marks)
7.b. Estimate All commodity Volume & Trial, Repeat, Total Volume. (5 Marks)

8.   The following is a data on the different types of commercial sports utility vehicles in   CO2   [K₆]
India.

Table1 : DATA ON SUV CARS

Brand	Colour	Price(Rs. '0000s)
A	White	50
B	Blue	100
C	Red	150

1.a. Develop a full factorial experimental design for the given product attributes. (5 marks)

1.b. Develop the dummy coding layout for further conjoint analysis by entering your preference towards the combination of these attributes. (5 marks)

9	A cinema theatre in a mall in Pune has regular customers and the details of their billing is given below. Explain steps in RFM Analysis and Customer Profitability using Whale Curve.					CO2 [K$_5$]

Customer ID	Recency (days)	Frequency (times)	Monetary (CLV)	Profit
Customer 101	33	15	240	29
Customer 102	1	9	141	25
Customer 106	50	1	950	45
Customer 108	6	10	200	27
Customer 109	5	8	440	33
Customer 110	3	6	320	30
Customer 130	10	5	190	18.5
Customer 132	14	4	169	16
Customer 133	5	3	130	16.1
Customer 198	21	2	640	40
Customer 256	32	2	55	-2.2
Customer 444	24	3	42	-0.2
Customer 478	17	2	44	-4
Customer 580	4	1	132	7
Customer 590	45	1	458	39

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