

VPM's
DR VN BRIMS, Thane
Programme: MMS (2013-15)
Third Semester Examination October/November 2014

MMS-III Subject Marketing		Market Research Applications (MRA 03)	
Roll No.		Marks	30 Marks
Total No. of Questions	5	Duration	2 Hours
Total No. of printed pages	4	Date	06.11.2014

Note: Q1 is compulsory and solve any TWO from the remaining FOUR questions.

Q1) 10 Marks (Compulsory)

Mr. Gala decided to invest in soap manufacturing in the year 2011. The brand Chamak was launched in greater Mumbai in the year 2011. After being in the market for 4 years, Mr. Gala decided to conduct a market research in order to understand the brand awareness and usage for Chamak and its competitors. Prepare a questionnaire by taking into consideration following information areas

Awareness & usage details

- ✓ Unaided and aided awareness of different brands of soap present in the market
- ✓ Sources of Ad for all the aware brands
- ✓ Brands ever used in the past
- ✓ Brands used in the past 1 year
- ✓ Brands used in past 6 months
- ✓ Brands used in past 3 months
- ✓ Brands using currently
- ✓ Most often used brand (MOUB)
- ✓ Brands which they will consider purchasing in future.
- ✓ Brands which they will recommend to others

Attempt Any TWO from the Remaining FOUR Questions

Q2) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

(a) Please explain regression analysis & its implications in market research. Kindly also explain standard regression equation? If sales, sales promotion, advertising, bundling, trade discount are different variables present; please identify dependent & independent variables.

(b) Explain what is the limitation of correlation analysis? Do have a look at the following correlation analysis table & state which variables have greatest correlation among themselves?

		Salary	Subordinates reporting	Work experience	Age	Marital status
Pearson Correlation	Salary	1.000	.395	.752	.691	.978
	Subordinates reporting	.395	1.000	.382	.655	.605
	Work experience	.752	.382	1.000	.650	.771
	Age	.691	.655	.650	1.000	.854
	Marital Status	.978	.605	.771	.854	1.000

(c) Please look at the below table & explain which model should we consider for regression analysis? And why?. Do identify insignificant variables at 95% confidence interval. If compensation is dependent variable then write down regression equation using given variables. Please predict compensation if an employee has scored 120 in aptitude test has a qualification value of 50 and technical skills are computed to be 90.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	Lower Bound	Upper Bound
1	(Constant)	462.792	170.836		2.709	.020
	Score in aptitude test	-82.081	36.422	-.299	-2.254	.046
	Qualification	114.344	46.705	.406	2.448	.032
	Technical skills	89.187	23.669	.726	3.768	.003
2	(Constant)	456.847	173.949		2.626	.025
	Score in Aptitude test	-93.432	39.717	-.340	-2.352	.040
	Qualification	110.270	47.788	.392	2.307	.044
	Abroad experience	44.211	55.721	.159	.793	.431
	Technical skills	77.515	28.216	.631	2.747	.021

a Dependent Variable: Compensation

Q3) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

(a) The selection procedure of a candidate for a MMS programme is dependent upon written test score, group discussion score & personal interview score. All the scores will have an impact on deciding whether the selection is successful or unsuccessful. Kindly identify the grouping variable & define range of the same. The discriminant analysis has thrown a below table of Canonical Discriminant Function Coefficients.

Score in Written Test	1.67
Score in Group discussion	-0.34
Score in Interview	0.85
(Constant)	56.84

Please predict the future of a candidate having a written test score of 116, group discussion score of 13 & personal interview score of 12 with the help of functions at group centroids.

1	1.86
2	-1.86

(b) Kindly explain the implication of conjoint analysis in market research. The Batliwala group makes various types of bottles. They can prepare bottles using glass, steel and plastic. Bottles are priced at Rs. 80, Rs. 50 & Rs. 74. The colours in which they prepare bottles are white, green & black. Kindly write down the coding scheme to enter the data into SPSS software.

(c) Tortoise repellents Pvt. Ltd. is a popular mosquito repellent company. Now they want to enter into facewash category. They have a capacity to produce different types of facewash namely anti-perspirant facewash, mosquito repellent facewash and specialized facewash to solve problem of pimples. The price points they want to look at is Rs. 70, Rs. 86 & Rs. 120. The size of packs also varies from 85 gms, 95 gms. and 105 gms. All the combinations are shown to users and users have been asked to give distinct ranks. Please identify how many such combinations are possible? The data is collected from users & is entered into SPSS. The regression analysis has shown a below table -

	Unstandardized Coefficients		Standardized Coefficients	t		Sig.
	B	Std. Error	Beta	Lower Bound	Upper Bound	
(Constant)	13.671	.621		22.008		.000
var1	4.442	.876	-.711	-7.740		.000
var2	1.325	.886	.109	1.168		.257
var3	-6.782	.859	.464	5.172		.000
var4	.911	.835	.096	1.092		.288
var5	2.554	.893	.268	2.860		.010
var6	-0.164	.884	-.069	-7.748		.463

a Dependent Variable: ranking v7

Kindly identify the best combination? Which variable has a maximum implication where users' choice is concerned?

Q4) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

(a) Kindly explain the implication of cluster analysis in market research. Explain step by step procedure to conduct cluster analysis in SPSS?

(b) The hierarchical cluster analysis method has given a below agglomeration schedule. Kindly identify how many clusters are emerging? Please explain the limitation of the hierarchical method of cluster analysis?

Stage	Cluster Combined		Coefficients
	Cluster 1	Cluster 2	Cluster 1
68	13	25	12.000
69	24	26	14.000
70	10	17	15.000
71	13	16	15.000
72	5	24	16.667
73	5	12	17.200
74	4	13	17.333
75	2	10	18.889
76	4	27	20.000
77	3	5	21.000
78	4	9	21.750
79	14	22	22.000
80	3	4	55.765
81	1	14	66.000
82	2	3	71.852
83	1	2	123.813

(c) Safedkamal Ltd a furniture manufacturing company has undertaken a segmentation exercise of their customers. Thus, a market research was conducted & segmentation was arrived after running a cluster analysis. The data was collected from 150 respondents & they were asked to give their opinion on a 5 point scale where 5 = strongly agree & 1 = strongly disagree. The hierarchical method has given following 4 clusters –

	Cluster			
	1	2	3	4
Looks & style	3	4	4	5
Sturdiness	5	4	4	4
Brand	5	4	4	3
Durability	5	5	4	4
Storage	3	5	4	4
Technology	3	4	4	4

Price	1	4	4	2
Maintenance Cost	1	4	4	2
Advertising	1	2	1.5	2
Warranty	1	4	4	3
Cost of spares	1	4	3	2
Transportation costs	3	4	4	4
Installation costs	1	1.5	2.4	1

Identify the factors important for the first segment? Which factors are not so much important across all the segments? Which factors are not much important for the 4th segment?

Q5) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

(a) Following is the rotated component matrix of a 4 factor solution. Kindly identify which variables can be clubbed together? Also identify which variables cannot be clubbed?

	Component			
	1	2	3	4
Higher tax should be imposed on rich people	0.987	0.589	0.375	0.520
I should be seen as a successful person	0.086	0.163	0.468	0.275
I always look out for lowest prices when I go for shopping	0.543	0.438	0.983	0.173
I am usually the first person to try new products in my peer group	0.385	0.976	0.549	0.305
I am hopeful that India will grow at more than 10% in near future	0.953	0.453	0.124	0.437
I believe politics exists everywhere	0.436	0.296	0.452	0.921
Hard work is more important than smart work	0.375	0.586	0.690	0.945
Many times I am tempted to buy things that I don't need	0.410	0.961	0.184	0.032
I like to surf on internet	0.052	0.943	0.051	0.390
I would prefer buying a product physically than online	0.164	0.124	0.954	0.431

(b) Rajasthan Motors Pvt. Ltd. wanted to understand the perception of car customers. The company has thus conducted a factor analysis. The analysis has given below rotated component matrix. Please identify which factor solution is used. Kindly club the different variables. Also state which variables cannot be clubbed.

	Component			
	1	2	3	4
Comfortable seating arrangement	0.969	0.023	0.598	0.365
Luggage space	0.938	0.065	0.413	0.456
Easy to maintain	0.658	-0.458	0.745	0.197
Price	0.368	0.975	0.687	-0.978
Higher leg space	0.498	0.239	0.458	0.168
Instant breaks	-0.569	-0.872	-0.985	-0.147
Availability in different colours	0.211	-0.479	0.914	0.685
Power Steering	-0.698	0.069	0.947	0.244
Attractive accessories	0.598	0.645	0.214	0.721
Mileage	0.387	0.961	0.297	-0.381
Grip on steering wheel	0.085	0.798	0.348	0.997
Availability to choose number plates	-0.659	0.003	0.741	0.935
Promotions & freebies	0.912	-0.097	0.265	-0.317

(c) Kindly explain the implication of factor analysis in market research. Which rotation method is usually used in the factor analysis?