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CHAPTER 4
DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

Researcher has presented data in tabular form followed by analysis and interpretation. Data has been collected through the structured codified close ended schedule. The collected data was screened, categorized, coded and then fed in Ms-Excel for evaluation and analysis by Kano evaluation table, M>O>A>I rule, Extent of satisfaction and Extent of dissatisfaction.

The data analysis is presented with the help of ten parts.

4.2 Data Analysis of Total Students of the Three Management Institutes

Introduction

From the data collected through the Karmaveer Bhaurao Patil Institute of Business Education and Research, Varye, Satara, Vasantraodada Patil Institute of Management Studies and Research, Sangli, Deshbhakta Ratnappa Kumbhar College of Commerce, Kolhapur.

172 samples were collected from different stratum viz. graduation degree and based on the gender.

Table 4.2.01
Demographic Profile of Sample

Sr.	Institute	Gender	Arts graduate	Commerce graduate	Science graduate	Professional graduate	Total	
1	K.B.P.I.M.S.R.	Male	2	4	3	10	19	56
		Female	3	8	4	22	37	
2	V.P.I.M.S.R.	Male	0	8	2	22	32	58
		Female	0	5	4	17	26	
3	D.R.K.C.C.	Male	1	14	4	14	33	58
		Female	0	8	1	16	25	
	TOTAL	Male	3	26	9	46	84	172
		Female	3	21	9	55	88	
		Total	6	47	18	101	172	

(Source: Field data)

The Table 4.2.01 shows the details of the students of the three management institutes. Total respondents from all the three management institutes are 84 male and 88 female.

Total 56 students of the Karmaveer Bhaurao Patil Institute of Management Education and Research, Varye, Satara, are taken as respondents, out of which 19 are male and 37 are female. The respondents from the Vasantraodada Patil Institute of Management Studies and Research, Sangli, are 32 male and 26 female students. And the respondents from the Deshbhakta Ratnappa Kumbhar College of Commerce, Kolhapur are 33 male and 25 female.

Also the Arts course graduate students are 3 male and 3 female. The Commerce graduate students are 26 male and 21 female. The Science graduate students are 9 male and 9 female. The Professional graduate students which are from the B.C.A., B.E., B.C.S., B.B.A., L.L.B., B.M.M. etc are 46 male and 55 female.

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Table 4.2.02
Kano Attributes Frequency for the Total Respondents
Following table depicts the total parameter frequency for the Kano attributes. (n=172)

Sr.	Parameter Name	Parameter No.	A	M	O	R	Q	I	Total
1	Books Availability	1	13	49	89	2	0	19	172
2	Journals Availability	2	40	36	65	1	0	30	172
3	Library Staff Behavior	3	22	51	59	1	2	37	172
4	Reading Room Availability	4	33	49	56	2	1	31	172
5	Computers With Fast Internet Connection	5	24	57	64	3	0	24	172
6	Wi-Fi Campus	6	54	19	43	4	1	51	172
7	Website Restrictions	7	10	23	14	55	14	56	172
8	Latest Software	8	36	44	54	2	1	35	172
9	Statistical Packages For Research	9	44	32	46	3	2	45	172
10	Communication Development Facilities	10	41	30	51	1	0	49	172
11	Campus Interviews	11	30	41	78	0	1	22	172
12	Interview Preparations	12	39	39	58	0	1	35	172
13	Corporate Exposure	13	47	36	63	0	2	24	172
14	English Communication Development Programs	14	56	29	52	1	0	34	172
15	Aptitude Improvement	15	39	35	60	1	0	37	172
16	Alumni Associations	16	33	39	40	0	1	59	172
17	Institute Brand Name	17	35	23	77	0	1	36	172
18	Management Festivals	18	46	32	68	0	1	25	172
19	Case studies & Live Projects	19	37	41	56	0	1	37	172
20	Counseling Facilities	20	39	39	45	3	1	45	172
21	Guest Lectures	21	48	31	39	1	3	50	172
22	Anti Ragging Cell	22	24	45	43	3	5	52	172
23	Canteen Facility	23	36	39	62	1	0	34	172
24	Transportation Facility	24	38	23	40	1	0	70	172
25	Medical First Aid Facility	25	40	39	48	0	1	44	172
26	Fee Installment Facility	26	27	42	68	0	1	34	172
27	Location of Institute	27	41	25	29	11	7	59	172
28	Hostel Facility	28	46	28	27	2	0	69	172
29	Well Furnished Classrooms	29	31	44	62	0	0	35	172
30	Well Furnished Seminar Hall	30	31	58	46	0	0	37	172
31	Well Furnished Auditorium	31	30	43	57	0	0	42	172
32	Recreational Facility	32	35	42	59	1	0	35	172
33	Vehicle Parking Space	33	30	46	32	3	1	60	172
34	Gymnasium Facility	34	41	28	48	0	0	55	172
35	Qualified Staff	35	21	62	70	0	0	19	172
36	Syllabus Completion in Time	36	18	54	62	1	0	37	172

37	Seminar Presentation	37	30	42	49	5	4	42	172
38	GD & Co-Curricular Activities	38	23	52	68	5	1	23	172

(Source: Field data)

The Table 4.2.02 gives the frequency of Kano attributes for the parameters. The table shows the attributes which are A-Attractive, M-Must be, O-One dimensional, R-Reverse, Q-Questionable and I-Indifferent.

The Questionable attributes and Reverse attributes are found less in numbers. The Questionable attributes has not got much significance as it just indicates that the respondent has not understood the question. The table shows that the parameter number 9 which is website restriction has got 14 responses in Questionable attribute means that 14 respondent didn't understood the question. Also the responses for the parameter of website restrictions for the Reverse attribute is the highest which is 55, i.e. 55 respondents feel that website restriction should be reversed that is there should not be any restrictions in computer labs on any website to browse.

Table 4.2.03
Kano Category for the Total Respondents
Following table depicts the Kano attribute frequency percentage and Kano category

(n=172)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Books availability	1	7.56	28.49	51.74	1.16	0.00	11.05	100	O
2	Journals availability	2	23.26	20.93	37.79	0.58	0.00	17.44	100	O
3	Library Staff behavior	3	12.79	29.65	34.30	0.58	1.16	21.51	100	O
4	Reading room availability	4	19.19	28.49	32.56	1.16	0.58	18.02	100	O
5	Computers with fast internet connection	5	13.95	33.14	37.21	1.74	0.00	13.95	100	O
6	Wi-Fi campus	6	31.40	11.05	25.00	2.33	0.58	29.65	100	A
7	Website restrictions	7	5.81	13.37	8.14	31.98	8.14	32.56	100	I
8	Latest software	8	20.93	25.58	31.40	1.16	0.58	20.35	100	O
9	Statistical packages for research	9	25.58	18.60	26.74	1.74	1.16	26.16	100	O
10	Communication development facilities	10	23.84	17.44	29.65	0.58	0.00	28.49	100	O
11	Campus interviews	11	17.44	23.84	45.35	0.00	0.58	12.79	100	O
12	Interview preparations	12	22.67	22.67	33.72	0.00	0.58	20.35	100	O
13	Corporate exposure	13	27.33	20.93	36.63	0.00	1.16	13.95	100	O
14	English communication development programs	14	32.56	16.86	30.23	0.58	0.00	19.77	100	A
15	Aptitude improvement	15	22.67	20.35	34.88	0.58	0.00	21.51	100	O
16	Alumni associations	16	19.19	22.67	23.26	0.00	0.58	34.30	100	I
17	Institute Brand name	17	20.35	13.37	44.77	0.00	0.58	20.93	100	O
18	Management festivals	18	26.74	18.60	39.53	0.00	0.58	14.53	100	O
19	Case studies & live projects	19	21.51	23.84	32.56	0.00	0.58	21.51	100	O
20	Counseling facilities	20	22.67	22.67	26.16	1.74	0.58	26.16	100	I
21	Guest lectures	21	27.91	18.02	22.67	0.58	1.74	29.07	100	I
22	Anti ragging cell	22	13.95	26.16	25.00	1.74	2.91	30.23	100	I
23	Canteen facility	23	20.93	22.67	36.05	0.58	0.00	19.77	100	O
24	Transportation facility	24	22.09	13.37	23.26	0.58	0.00	40.70	100	I
25	Medical first aid facility	25	23.26	22.67	27.91	0.00	0.58	25.58	100	O
26	Fee installment facility	26	15.70	24.42	39.53	0.00	0.58	19.77	100	O
27	Location of institute	27	23.84	14.53	16.86	6.40	4.07	34.30	100	I
28	Hostel facility	28	26.74	16.28	15.70	1.16	0.00	40.12	100	I
29	Well furnished classrooms	29	18.02	25.58	36.05	0.00	0.00	20.35	100	O
30	Well furnished seminar hall	30	18.02	33.72	26.74	0.00	0.00	21.51	100	M
31	Well furnished auditorium	31	17.44	25.00	33.14	0.00	0.00	24.42	100	O
32	Recreational facility	32	20.35	24.42	34.30	0.58	0.00	20.35	100	O

33	Vehicle parking space	33	17.44	26.74	18.60	1.74	0.58	34.88	100	I
34	Gymnasium facility	34	23.84	16.28	27.91	0.00	0.00	31.98	100	I
35	Qualified staff	35	12.21	36.05	40.70	0.00	0.00	11.05	100	O
36	Syllabus completion in time	36	10.47	31.40	36.05	0.58	0.00	21.51	100	O
37	Seminar presentation	37	17.44	24.42	28.49	2.91	2.33	24.42	100	O
38	GD & co-curricular activities	38	13.37	30.23	39.53	2.91	0.58	13.37	100	O

(Source: Field data)

The Table 4.2.03 shows calculation of Kano attributes in percentage and based on the maximum percentage of responses, categories of attribute for that parameter has been decided. From the table it is observed that Must be attribute is only one, Attractive attributes are two and most of the attributes are One dimensional.

Table 4.2.04
Must be and One-Dimensional Attributes for the Total Respondents
Following table depicts the Must be and One-Dimensional attributes. (n=172)

Sr	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Well furnished seminar hall	30	18.02	33.72	26.74	0.00	0.00	21.51	100	M
2	Books availability	1	7.56	28.49	51.74	1.16	0.00	11.05	100	O
3	Journals availability	2	23.26	20.93	37.79	0.58	0.00	17.44	100	O
4	Library Staff behavior	3	12.79	29.65	34.30	0.58	1.16	21.51	100	O
5	Reading room availability	4	19.19	28.49	32.56	1.16	0.58	18.02	100	O
6	Computers with fast internet connection	5	13.95	33.14	37.21	1.74	0.00	13.95	100	O
7	Latest software	8	20.93	25.58	31.40	1.16	0.58	20.35	100	O
8	Statistical packages for research	9	25.58	18.60	26.74	1.74	1.16	26.16	100	O
9	Communication development facilities	10	23.84	17.44	29.65	0.58	0.00	28.49	100	O
10	Campus interviews	11	17.44	23.84	45.35	0.00	0.58	12.79	100	O
11	Interview preparations	12	22.67	22.67	33.72	0.00	0.58	20.35	100	O
12	Corporate exposure	13	27.33	20.93	36.63	0.00	1.16	13.95	100	O
13	Aptitude improvement	15	22.67	20.35	34.88	0.58	0.00	21.51	100	O
14	Institute Brand name	17	20.35	13.37	44.77	0.00	0.58	20.93	100	O
15	Management festivals	18	26.74	18.60	39.53	0.00	0.58	14.53	100	O
16	Case studies & live projects	19	21.51	23.84	32.56	0.00	0.58	21.51	100	O
17	Canteen facility	23	20.93	22.67	36.05	0.58	0.00	19.77	100	O
18	Medical first aid facility	25	23.26	22.67	27.91	0.00	0.58	25.58	100	O
19	Fee installment facility	26	15.70	24.42	39.53	0.00	0.58	19.77	100	O
20	Well furnished classrooms	29	18.02	25.58	36.05	0.00	0.00	20.35	100	O
21	Well furnished auditorium	31	17.44	25.00	33.14	0.00	0.00	24.42	100	O
22	Recreational facility	32	20.35	24.42	34.30	0.58	0.00	20.35	100	O
23	Syllabus completion in time	36	10.47	31.40	36.05	0.58	0.00	21.51	100	O
24	Seminar presentation	37	17.44	24.42	28.49	2.91	2.33	24.42	100	O
25	GD & co-curricular activities	38	13.37	30.23	39.53	2.91	0.58	13.37	100	O

(Source: Field data)

M>O>A>I rule

By applying the rule of M>O>A>I, the parameters are grouped together based on their Kano category. So these attributes are arranged sequentially based on the Must be, One dimensional, Attractive and Indifferent attributes.

The Table 4.2.04 shows the Must be and One-dimensional attributes. In this table it is found that well furnished seminar hall parameter is the only Must be parameter with 33.72%. So according to the responses, the students are expecting and taking granted that the Management Institutes will provide well furnished seminar hall. The more facilities or more expenses on seminar hall will only lead to a state of 'not dissatisfied' and will not increase satisfaction. But if there is absence or no proper seminar hall, this will lead students to a state of dissatisfaction drastically.

All library parameters like books availability (51.74%), journals availability (37.79%), library staff behavior (34.30%), reading room availability (32.56%) are found to be under One-Dimensional attributes. That means library facility is having power of satisfying as well as dissatisfying. There is linear relationship between level of satisfaction and level of fulfillment. When one increases another also increases and vice versa. When library facility is not getting offered as per expectations of the students or the level of fulfillment of service from the library decreases, it will lead to state of dissatisfaction or there is decrease in level of satisfaction. But when student expectations are getting fulfilled from the library or improvement in service or level of fulfillment increases from the library that time students are getting satisfied or level of satisfaction will rise.

By looking at Computer lab and Internet parameters, computers with fast internet connection, latest software and statistical packages for the research parameters are categorized under One-Dimensional parameters. So for these parameters as the level of fulfillment increases, the level of satisfaction also increases and as the level of fulfillment decreases the student satisfaction also will decrease.

Career Management parameters like communication development facilities, campus interviews, Interview preparations, corporate exposure, aptitude improvement, Institute brand name and Student development parameters like Management festivals, case studies and live projects and Administration parameters like canteen facility, medical first aid

facility, fee installment facility and Infrastructure parameters like well furnished classrooms, well furnished auditorium, recreational facility and also Academics parameters like syllabus completion in time, seminar presentations and GD and co-curricular activities are categorized under One-dimensional attributes. So as the level of fulfillment of these parameters increases, the level of satisfaction also will increase and vice versa.

Table 4.2.05
Attractive and Indifferent Attributes for the Total Respondents
The following table depicts the Attractive and Indifferent attributes. (n=172)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Wi-Fi campus	6	31.40	11.05	25.00	2.33	0.58	29.65	100	A
2	English communication development programs	14	32.56	16.86	30.23	0.58	0.00	19.77	100	A
3	Website restrictions	7	5.81	13.37	8.14	31.98	8.14	32.56	100	I
4	Alumni associations	16	19.19	22.67	23.26	0.00	0.58	34.30	100	I
5	Guest lectures	21	27.91	18.02	22.67	0.58	1.74	29.07	100	I
6	Anti ragging cell	22	13.95	26.16	25.00	1.74	2.91	30.23	100	I
7	Transportation facility	24	22.09	13.37	23.26	0.58	0.00	40.70	100	I
8	Location of institute	27	23.84	14.53	16.86	6.40	4.07	34.30	100	I
9	Hostel facility	28	26.74	16.28	15.70	1.16	0.00	40.12	100	I
10	Vehicle parking space	33	17.44	26.74	18.60	1.74	0.58	34.88	100	I
11	Gymnasium facility	34	23.84	16.28	27.91	0.00	0.00	31.98	100	I

(Source: Field data)

The table 4.2.05 shows, the parameters are classified under the Attractive attributes and Indifferent attributes as the responses for these parameters are highest for attractive and Indifferent respectively.

Wi-Fi campus and English communication development programs parameters are categorized under the Attractive attributes since these parameters come with 31.40% and 32.56%. It means that these parameters are not expected but if they are available then

they will increase satisfaction tremendously. And even if they are not available or the level of fulfillment is low, it will not lead to dissatisfaction.

The website restriction (32.56%), alumni association (34.3%), guest lectures (29.07%), anti ragging cell (30.23%), transportation facility (40.70%), location of Institute (34.30%), hostel facility (40.12%), vehicle parking space (34.88%), gymnasium facility (31.98%) are categorized under Indifferent attributes. These parameters are not having much impact on the satisfaction level of students. Their presence or absence will have negligible impact on the satisfaction of the students from the Management Institutes.

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Table 4.2.06
Extent of Satisfaction and Extent of Dissatisfaction for the Total Respondents
The following table depicts the values of Extent of satisfaction and Extent of Dissatisfaction for the parameters. (n=172)

Sr.	Parameter Name	Parameter No.	Parameter category	Extent of Satisfaction	Extent of Dissatisfaction
1	Books availability	1	O	0.60	-0.81
2	Journals availability	2	O	0.61	-0.59
3	Library Staff behavior	3	O	0.48	-0.65
4	Reading room availability	4	O	0.53	-0.62
5	Computers with fast internet connection	5	O	0.52	-0.72
6	Wi-Fi campus	6	A	0.58	-0.37
7	Website restrictions	7	I	0.23	-0.36
8	Latest software	8	O	0.53	-0.58
9	Statistical packages for research	9	O	0.54	-0.47
10	Communication development facilities	10	I	0.54	-0.47
11	Campus interviews	11	O	0.63	-0.70
12	Interview preparations	12	O	0.57	-0.57
13	Corporate exposure	13	O	0.65	-0.58
14	English communication development programs	14	A	0.63	-0.47
15	Aptitude improvement	15	O	0.58	-0.56
16	Alumni associations	16	I	0.43	-0.46
17	Institute Brand name	17	O	0.65	-0.58
18	Management festivals	18	O	0.67	-0.58
19	Case studies & live projects	19	O	0.54	-0.57
20	Counseling facilities	20	I	0.50	-0.50
21	Guest lectures	21	I	0.52	-0.42
22	Anti ragging cell	22	I	0.41	-0.54
23	Canteen facility	23	O	0.57	-0.59
24	Transportation facility	24	I	0.46	-0.37
25	Medical first aid facility	25	O	0.51	-0.51
26	Fee installment facility	26	O	0.56	-0.64
27	Location of institute	27	I	0.45	-0.35
28	Hostel facility	28	I	0.43	-0.32
29	Well furnished classrooms	29	O	0.54	-0.62
30	Well furnished seminar hall	30	M	0.45	-0.60
31	Well furnished auditorium	31	O	0.51	-0.58
32	Recreational facility	32	O	0.55	-0.59
33	Vehicle parking space	33	I	0.37	-0.46

34	Gymnasium facility	34	I	0.52	-0.44
35	Qualified staff	35	M	0.53	-0.77
36	Syllabus completion in time	36	O	0.47	-0.68
37	Seminar presentation	37	O	0.48	-0.56
38	GD & co-curricular activities	38	O	0.55	-0.72

(Source: Field data)

As shown in table 4.2.06 Extent of Satisfaction and Extent of Dissatisfaction for the parameters. The Extent of Satisfaction when indicates high positive value, student satisfaction will increase tremendously when the parameters or requirements are fulfilled. The low value of Extent of Satisfaction indicates the satisfaction of students will be less increased due to fulfilling the parameters or requirements.

The parameters Campus Interviews (0.63), Corporate exposure (0.65), Institute brand name (0.65), Management festivals (0.67), English communication development programs (0.63) are having high value of Extent of Satisfaction. This means that these parameters are having highest positive impact on the level of satisfaction. As these are fulfilled as per expectations of the students, satisfaction level of students will rise tremendously.

Website restrictions (0.23), vehicle parking space (0.37), anti ragging cell (0.41), alumni associations (0.43), hostel facility (0.43), location of Institute (0.45) and well furnished seminar hall (0.45) parameters are having low value of Extent of Satisfaction. This implies that the fulfillments of these parameters are having less power to satisfy the students, the level of satisfaction will not increase tremendously.

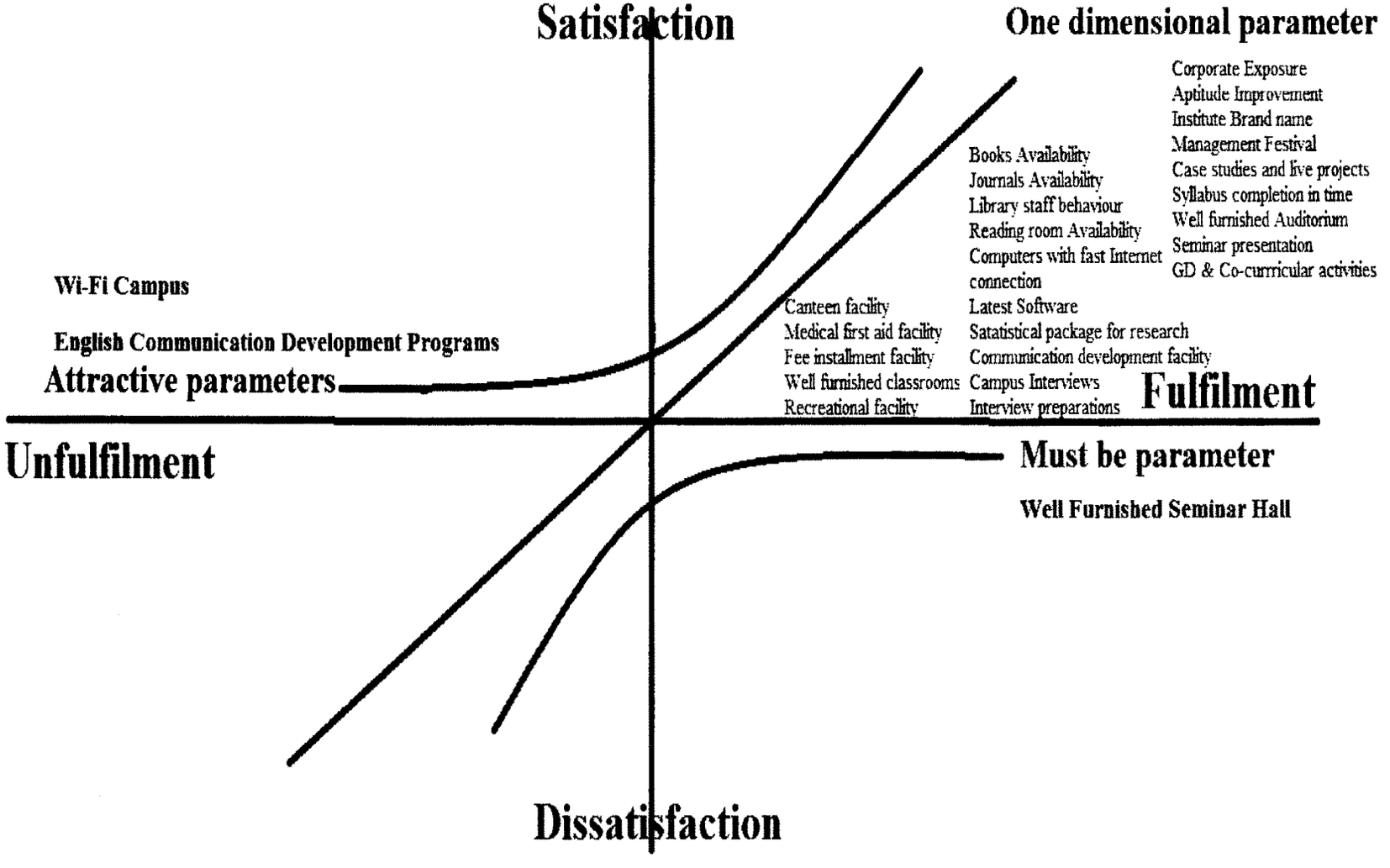
The high value of Extent of Dissatisfaction indicates student satisfaction level will decrease tremendously if these are not provided. The low value of Extent of Dissatisfaction indicates as the level of fulfillment of these parameters decrease there will be less increase in student dissatisfaction.

The parameters books availability (-0.81), qualified staff (-0.77), computers with fast Internet connection (-0.72), GD and Co-curricular activities (-0.72) and campus interviews (-0.70) are having the high value of Extent of Dissatisfaction. This implies that as the level of fulfillment of these parameters decreases then the student satisfaction level will also decrease tremendously or the level of dissatisfaction will increase tremendously. So the Management Institutes should always try to fulfill these parameters.

On contrary parameters hostel facility (-0.32), location of the Institute (-0.35), website restrictions (-0.36), transportation facility (-0.37) and Wi-Fi campus (-0.37) are having the low values for the Extent of Dissatisfaction. This means that as the level of fulfillment of these parameters decreases it will lead to less increase in student dissatisfaction. So even if there is compromise in service of these parameters students level of dissatisfaction will not increase much.

Figure 4.1

Kano Model for the Shivaji University based on the Responses from the Three Management Institute



4.3 Data Analysis of Female Students of the Three Management Institutes

Introduction

The data was collected through the 88 female students of Karmaveer Bhaurao Patil Institute of Business Education and Research, Varye, Satara, Vasantraodada Patil Institute of Management Studies and Research, Sangli, Deshbhakta Ratnappa Kumbhar College of Commerce, Kolhapur.

The collected data was screened, categorized, coded and then fed in Ms-Excel for evaluation and analysis by Kano evaluation table, M>O>A>I rule, Extent of satisfaction and Extent of dissatisfaction.

Table 4.3.01
Kano Attributes Frequency for the Female Students
Following table depicts the total parameter frequency for the Kano attributes. (n=88)

Sr.	Parameter Name	Parameter No.	A	M	O	R	Q	I	Total
1	Books availability	1	5	29	45	2	0	7	88
2	Journals availability	2	17	20	34	0	0	17	88
3	Library Staff behavior	3	13	23	31	1	2	18	88
4	Reading room availability	4	18	25	31	0	0	14	88
5	Computers with fast internet connection	5	12	27	36	0	0	13	88
6	Wi-Fi campus	6	25	10	21	3	1	28	88
7	Website restrictions	7	7	11	5	35	5	25	88
8	Latest software	8	18	22	33	0	1	14	88
9	Statistical packages for research	9	21	19	24	1	2	21	88
10	Communication development facilities	10	21	18	25	1	0	23	88
11	Campus interviews	11	14	23	46	0	0	5	88
12	Interview preparations	12	20	20	31	0	1	16	88
13	Corporate exposure	13	26	16	34	0	2	10	88
14	English communication development programs	14	24	17	33	0	0	14	88
15	Aptitude improvement	15	15	21	39	1	0	12	88
16	Alumni associations	16	16	23	22	0	0	27	88
17	Institute Brand name	17	19	11	47	0	0	11	88
18	Management festivals	18	25	18	36	0	1	8	88
19	Case studies & live projects	19	14	29	27	0	1	17	88
20	Counseling facilities	20	22	18	27	1	0	20	88
21	Guest lectures	21	29	18	21	0	3	17	88
22	Anti ragging cell	22	15	25	18	2	2	26	88
23	Canteen facility	23	15	18	36	1	0	18	88
24	Transportation facility	24	21	14	19	0	0	34	88
25	Medical first aid facility	25	19	21	24	0	0	24	88
26	Fee installment facility	26	12	23	40	0	1	12	88
27	Location of institute	27	21	15	14	4	4	30	88
28	Hostel facility	28	24	13	14	1	0	36	88
29	Well furnished classrooms	29	17	23	32	0	0	16	88
30	Well furnished seminar hall	30	18	26	24	0	0	20	88
31	Well furnished auditorium	31	17	21	31	0	0	19	88
32	Recreational facility	32	19	22	28	1	0	18	88
33	Vehicle parking space	33	15	18	21	1	1	32	88
34	Gymnasium facility	34	24	14	21	0	0	29	88
35	Qualified staff	35	4	35	42	0	0	7	88
36	Syllabus completion in time	36	10	28	36	1	0	13	88

37	Seminar presentation	37	10	23	29	1	4	21	88
38	GD & co-curricular activities	38	11	32	35	2	1	7	88

(Source: Field data)

The table 4.3.01 gives the frequency of Kano attributes for the parameters. The table shows the attributes which are tabulated as A-Attractive, M-Must be, O-One Dimensional, R-Reverse, Q-Questionable and I-Indifferent.

The Questionable Attributes and Reverse attributes are found less in numbers. The Questionable attributes has not got much significance as it just indicates that the respondent has not understood the question. The responses for the parameter of website restrictions for the Reverse attribute is the highest which is 35, means that 35 female respondents feel that website restriction should be reversed. It means that there should not be any restrictions in computer labs on any website to browse.

Table 4.3.02
Kano Category for the Female Students
Following table depicts the Kano category for the female students (n=88)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Books availability	1	5.68	32.95	51.14	2.27	0.00	7.95	100	O
2	Journals availability	2	19.32	22.73	38.64	0.00	0.00	19.32	100	O
3	Library Staff behavior	3	14.77	26.14	35.23	1.14	2.27	20.45	100	O
4	Reading room availability	4	20.45	28.41	35.23	0.00	0.00	15.91	100	O
5	Computers with fast internet connection	5	13.64	30.68	40.91	0.00	0.00	14.77	100	O
6	Wi-Fi campus	6	28.41	11.36	23.86	3.41	1.14	31.82	100	I
7	Website restrictions	7	7.95	12.50	5.68	39.77	5.68	28.41	100	R
8	Latest software	8	20.45	25.00	37.50	0.00	1.14	15.91	100	O
9	Statistical packages for research	9	23.86	21.59	27.27	1.14	2.27	23.86	100	O
10	Communication development facilities	10	23.86	20.45	28.41	1.14	0.00	26.14	100	O
11	Campus interviews	11	15.91	26.14	52.27	0.00	0.00	5.68	100	O
12	Interview preparations	12	22.73	22.73	35.23	0.00	1.14	18.18	100	O
13	Corporate exposure	13	29.55	18.18	38.64	0.00	2.27	11.36	100	O
14	English communication development programs	14	27.27	19.32	37.50	0.00	0.00	15.91	100	O
15	Aptitude improvement	15	17.05	23.86	44.32	1.14	0.00	13.64	100	O
16	Alumni associations	16	18.18	26.14	25.00	0.00	0.00	30.68	100	I
17	Institute Brand name	17	21.59	12.50	53.41	0.00	0.00	12.50	100	O
18	Management festivals	18	28.41	20.45	40.91	0.00	1.14	9.09	100	O
19	Case studies & live projects	19	15.91	32.95	30.68	0.00	1.14	19.32	100	M
20	Counseling facilities	20	25.00	20.45	30.68	1.14	0.00	22.73	100	O
21	Guest lectures	21	32.95	20.45	23.86	0.00	3.41	19.32	100	A
22	Anti ragging cell	22	17.05	28.41	20.45	2.27	2.27	29.55	100	I
23	Canteen facility	23	17.05	20.45	40.91	1.14	0.00	20.45	100	O
24	Transportation facility	24	23.86	15.91	21.59	0.00	0.00	38.64	100	I

25	Medical first aid facility	25	21.59	23.86	27.27	0.00	0.00	27.27	100	O&I
26	Fee installment facility	26	13.64	26.14	45.45	0.00	1.14	13.64	100	O
27	Location of institute	27	23.86	17.05	15.91	4.55	4.55	34.09	100	I
28	Hostel facility	28	27.27	14.77	15.91	1.14	0.00	40.91	100	I
29	Well furnished classrooms	29	19.32	26.14	36.36	0.00	0.00	18.18	100	O
30	Well furnished seminar hall	30	20.45	29.55	27.27	0.00	0.00	22.73	100	M
31	Well furnished auditorium	31	19.32	23.86	35.23	0.00	0.00	21.59	100	O
32	Recreational facility	32	21.59	25.00	31.82	1.14	0.00	20.45	100	O
33	Vehicle parking space	33	17.05	20.45	23.86	1.14	1.14	36.36	100	I
34	Gymnasium facility	34	27.27	15.91	23.86	0.00	0.00	32.95	100	I
35	Qualified staff	35	4.55	39.77	47.73	0.00	0.00	7.95	100	O
36	Syllabus completion in time	36	11.36	31.82	40.91	1.14	0.00	14.77	100	O
37	Seminar presentation	37	11.36	26.14	32.95	1.14	4.55	23.86	100	O
38	GD & co-curricular activities	38	12.50	36.36	39.77	2.27	1.14	7.95	100	O

(Source: Field data)

The Table 4.3.02 shows calculation of Kano attributes in percentage and based on the maximum percentage of responses, categories of attribute for that parameter has been decided. From the table it is observed that Must be attribute are two, Attractive attribute and reverse attribute is only one and majority of the attributes are One dimensional. The website restriction parameter is reverse attribute; female students are also expecting that there should not be any restrictions to browse any website. For the medical first aid facility parameter the maximum responses are equal between two attributes One-dimensional and Indifferent attribute.

Table 4.3.03
Must be and One dimensional Attributes for the Female Students
Following table depicts the Must be and One dimensional attributes. (n=88)

Sr	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Case studies & live projects	19	15.91	32.95	30.68	0.00	1.14	19.32	100	M
2	Well furnished seminar hall	30	20.45	29.55	27.27	0.00	0.00	22.73	100	M
3	Books availability	1	5.68	32.95	51.14	2.27	0.00	7.95	100	O
4	Journals availability	2	19.32	22.73	38.64	0.00	0.00	19.32	100	O
5	Library staff behavior	3	14.77	26.14	35.23	1.14	2.27	20.45	100	O
6	Reading room availability	4	20.45	28.41	35.23	0.00	0.00	15.91	100	O
7	Computers with fast internet connection	5	13.64	30.68	40.91	0.00	0.00	14.77	100	O
8	Latest software	8	20.45	25.00	37.50	0.00	1.14	15.91	100	O
9	Statistical packages for research	9	23.86	21.59	27.27	1.14	2.27	23.86	100	O
10	Communication development facilities	10	23.86	20.45	28.41	1.14	0.00	26.14	100	O
11	Campus interviews	11	15.91	26.14	52.27	0.00	0.00	5.68	100	O
12	Interview preparations	12	22.73	22.73	35.23	0.00	1.14	18.18	100	O
13	Corporate exposure	13	29.55	18.18	38.64	0.00	2.27	11.36	100	O
14	English communication development programs	14	27.27	19.32	37.50	0.00	0.00	15.91	100	O
15	Aptitude improvement	15	17.05	23.86	44.32	1.14	0.00	13.64	100	O
16	Institute brand name	17	21.59	12.50	53.41	0.00	0.00	12.50	100	O
17	Management festivals	18	28.41	20.45	40.91	0.00	1.14	9.09	100	O
18	Counseling facilities	20	25.00	20.45	30.68	1.14	0.00	22.73	100	O
19	Canteen facility	23	17.05	20.45	40.91	1.14	0.00	20.45	100	O
20	Fee installment facility	26	13.64	26.14	45.45	0.00	1.14	13.64	100	O
21	Well furnished classrooms	29	19.32	26.14	36.36	0.00	0.00	18.18	100	O
22	Well furnished auditorium	31	19.32	23.86	35.23	0.00	0.00	21.59	100	O
23	Recreational facility	32	21.59	25.00	31.82	1.14	0.00	20.45	100	O
24	Qualified staff	35	4.55	39.77	47.73	0.00	0.00	7.95	100	O
25	Syllabus completion in time	36	11.36	31.82	40.91	1.14	0.00	14.77	100	O
26	Seminar presentation	37	11.36	26.14	32.95	1.14	4.55	23.86	100	O
27	GD & Co-curricular activities	38	12.50	36.36	39.77	2.27	1.14	7.95	100	O

(Source: Field data)

M>O>A>I rule

By applying the rule of M>O>A>I, the parameters are grouped together based on their Kano category. So these attributes are arranged sequentially based on the Must be, One dimensional, Attractive and Indifferent attributes.

The Table 4.3.03 shows the Must be and One dimensional attributes. In this table it is found that case studies and live projects and well furnished seminar hall parameters are the Must be parameters. So the female students are expecting and taking granted that the Management Institutes will provide well furnished seminar hall and also will have case studies and live projects. The more facilities or more expenses on seminar hall will only lead to a state of 'not dissatisfied' and will not increase satisfaction. But if there is absence of these parameters or level of fulfillment is low then this will lead female students to a state of dissatisfaction drastically.

The library parameters which are books availability, Journals availability, library staff behavior, Reading room availability are categorized under the One-dimensional attributes. The Computer lab and Internet parameters which are Computers with fast internet connection, latest software and statistical packages for research are also categorized under One-dimensional attributes.

The Career management parameters viz. communication development facilities, campus interviews, Interview preparations, corporate exposure, English communication development programs, aptitude improvement and Institute brand name are categorized under One-dimensional attributes.

The student development parameters viz. management festivals and counseling facilities and the administration parameters viz. canteen facility and fee installment facility are also categorized under One-dimensional attributes. The infrastructure parameters like well furnished classrooms & auditorium and recreational facility and academics parameters like qualified staff, syllabus completion in time, seminar presentation and GD and Co-curricular activities are also categorized under One-dimensional attributes.

Table 4.3.04
Attractive and Indifferent Attributes for the Female Students
The following table depicts the Attractive and Indifferent attributes. (n=88)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Guest lectures	21	32.95	20.45	23.86	0.00	3.41	19.32	100	A
2	Wi-Fi campus	6	28.41	11.36	23.86	3.41	1.14	31.82	100	I
3	Alumni associations	16	18.18	26.14	25.00	0.00	0.00	30.68	100	I
4	Anti ragging cell	22	17.05	28.41	20.45	2.27	2.27	29.55	100	I
5	Transportation facility	24	23.86	15.91	21.59	0.00	0.00	38.64	100	I
6	Location of Institute	27	23.86	17.05	15.91	4.55	4.55	34.09	100	I
7	Hostel facility	28	27.27	14.77	15.91	1.14	0.00	40.91	100	I
8	Vehicle parking space	33	17.05	20.45	23.86	1.14	1.14	36.36	100	I
9	Gymnasium facility	34	27.27	15.91	23.86	0.00	0.00	32.95	100	I

(Source: Field data)

The Table 4.3.04 shows the Attractive and Indifferent attributes

As per the response from the female students the guest lecture parameter is Attractive attribute. Female students are not expecting the guest lectures and their absence will not lead to dissatisfaction but if the Institute organizes these then female students satisfaction level will increase tremendously.

Wi-Fi campus, alumni associations, anti-ragging cell, transportation facility, location of Institute, hostel facility, vehicle parking space and gymnasium facility are categorized under Indifferent attributes. These parameters are not having much impact on the satisfaction level of students. Their presence or absence will have negligible impact on the satisfaction of the students from the Management Institutes.

Table 4.3.05
Extent of Satisfaction and Extent of Dissatisfaction for the Female Students
The following table depicts the values of Extent of satisfaction and Extent of Dissatisfaction for the parameters. (n=88)

Sr.	Parameter Name	Parameter No.	Parameter Category	Extent of Satisfaction	Extent of Dissatisfaction
1	Books availability	1	O	0.60	-0.81
2	Journals availability	2	O	0.61	-0.59
3	Library Staff behavior	3	O	0.48	-0.65
4	Reading room availability	4	O	0.53	-0.62
5	Computers with fast internet connection	5	O	0.52	-0.72
6	Wi-Fi campus	6	I	0.58	-0.37
7	Website restrictions	7	R	0.23	-0.36
8	Latest software	8	O	0.53	-0.58
9	Statistical packages for research	9	O	0.54	-0.47
10	Communication development facilities	10	O	0.54	-0.47
11	Campus interviews	11	O	0.63	-0.70
12	Interview preparations	12	O	0.57	-0.57
13	Corporate exposure	13	O	0.65	-0.58
14	English communication development programs	14	O	0.63	-0.47
15	Aptitude improvement	15	O	0.58	-0.56
16	Alumni associations	16	I	0.43	-0.46
17	Institute Brand name	17	O	0.65	-0.58
18	Management festivals	18	O	0.67	-0.58
19	Case studies & live projects	19	M	0.54	-0.57
20	Counseling facilities	20	O	0.50	-0.50
21	Guest lectures	21	A	0.52	-0.42
22	Anti ragging cell	22	I	0.41	-0.54
23	Canteen facility	23	O	0.57	-0.59
24	Transportation facility	24	I	0.46	-0.37
25	Medical first aid facility	25	O & I	0.51	-0.51
26	Fee installment facility	26	O	0.56	-0.64
27	Location of institute	27	I	0.45	-0.35
28	Hostel facility	28	I	0.43	-0.32
29	Well furnished classrooms	29	O	0.54	-0.62
30	Well furnished seminar hall	30	M	0.45	-0.60
31	Well furnished auditorium	31	O	0.51	-0.58
32	Recreational facility	32	O	0.55	-0.59
33	Vehicle parking space	33	I	0.37	-0.46
34	Gymnasium facility	34	I	0.52	-0.44
35	Qualified staff	35	O	0.53	-0.77
36	Syllabus completion in time	36	O	0.47	-0.68
37	Seminar presentation	37	O	0.48	-0.56
38	GD & co-curricular activities	38	O	0.55	-0.72

(Source: Field data)

As shown in Table 4.3.05 Extent of Satisfaction and Extent of Dissatisfaction for the parameters. The Extent of Satisfaction when indicates high positive value, student satisfaction will increase tremendously when the parameters or requirements are fulfilled. The low value of Extent of Satisfaction indicates the satisfaction of students will be less increased due to fulfilling the parameters or requirements.

Management festivals, Institute brand name, corporate exposure, campus interviews, English communication development programs are the parameters which are having high positive value for the Extent of satisfaction. So these parameters will create tremendous satisfaction among the students.

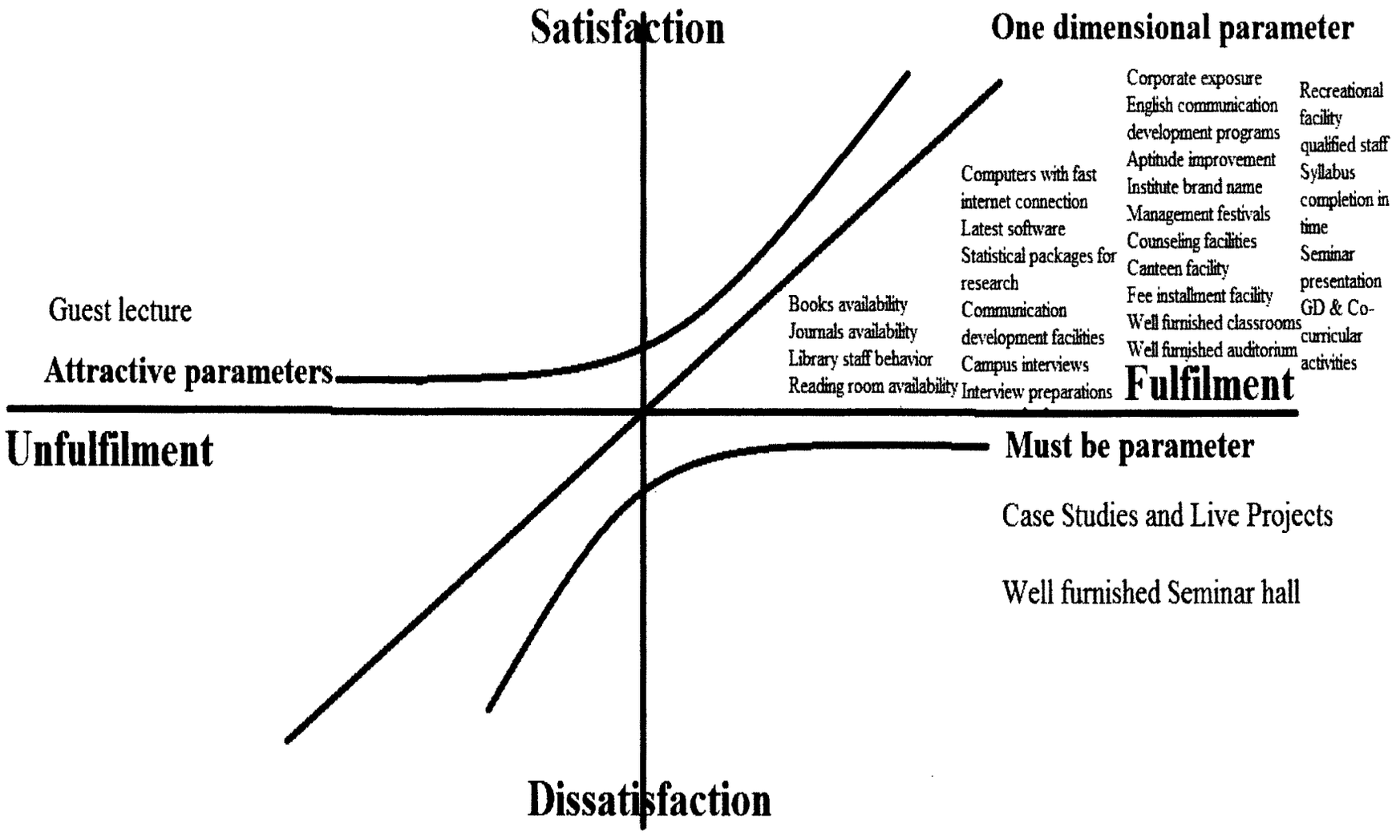
Website restriction, vehicle parking space, anti ragging cell, hostel facility, location of the institute and transportation facility are the parameters which are having less positive value for the Extent of Satisfaction. So these parameters will create low level of satisfaction due to fulfillment.

The high value of Extent of Dissatisfaction indicates student satisfaction level will decrease tremendously if these are not provided. The low value of Extent of Dissatisfaction indicates as the level of fulfillment of these parameters decrease there will be less increase in student dissatisfaction.

Books availability, qualified staff, computers with fast internet connection, GD-co curricular activities, and Campus interviews are the parameters which are having highest values for the Extent of Dissatisfaction. So as the level of fulfillment decreases the level of dissatisfaction rises tremendously.

Hostel facility, location of the institute, transportation facility, website restrictions and Wi-Fi campus are having less value for the Extent of Dissatisfaction. So as the level of fulfillment of these parameters decreases there is low rise in level of dissatisfaction.

Figure 4.2
Kano Model for the Female Students



4.4 Data Analysis of Male Students of the Three Management Institutes

Introduction

The data was collected through the 84 male students from Karmaveer Bhaurao Patil Institute of Business Education and research, Varye, Satara, Vasantraodada Patil Institute of Management Studies and Research, Sangli, Deshbhakta Ratnappa Kumbhar College of Commerce, Kolhapur.

The collected data was screened, categorized, coded and then fed in Ms-Excel for evaluation and analysis by Kano evaluation table, M>O>A>I rule, Extent of satisfaction and Extent of dissatisfaction.

Table 4.4.01
Kano Attributes Frequency for the Male Students
Following table depicts the total parameter frequency for the Kano attributes. (n=84)

Sr.	Parameter Name	Parameter No.	A	M	O	R	Q	I	Total
1	Books availability	1	8	20	44	0	0	12	84
2	Journals availability	2	23	16	31	1	0	13	84
3	Library Staff behavior	3	9	28	28	0	0	19	84
4	Reading room availability	4	15	24	25	2	1	17	84
5	Computers with fast internet connection	5	12	30	28	3	0	11	84
6	Wi-Fi campus	6	29	9	22	1	0	23	84
7	Website restrictions	7	3	12	9	20	9	31	84
8	Latest software	8	18	22	21	2	0	21	84
9	Statistical packages for research	9	23	13	22	2	0	24	84
10	Communication development facilities	10	20	12	26	0	0	26	84
11	Campus interviews	11	16	18	32	0	1	17	84
12	Interview preparations	12	19	19	27	0	0	19	84
13	Corporate exposure	13	21	20	29	0	0	14	84
14	English communication development programs	14	32	12	19	1	0	20	84
15	Aptitude improvement	15	24	14	21	0	0	25	84
16	Alumni associations	16	17	16	18	0	1	32	84
17	Institute Brand name	17	16	12	30	0	1	25	84
18	Management festivals	18	21	14	32	0	0	17	84
19	Case studies & live projects	19	23	12	29	0	0	20	84
20	Counseling facilities	20	17	21	18	2	1	25	84
21	Guest lectures	21	19	13	18	1	0	33	84
22	Anti ragging cell	22	9	20	25	1	3	26	84
23	Canteen facility	23	21	21	26	0	0	16	84
24	Transportation facility	24	17	9	21	1	0	36	84
25	Medical first aid facility	25	21	18	24	0	1	20	84
26	Fee installment facility	26	15	19	28	0	0	22	84
27	Location of institute	27	20	10	15	7	3	29	84
28	Hostel facility	28	22	15	13	1	0	33	84
29	Well furnished classrooms	29	14	21	30	0	0	19	84
30	Well furnished seminar hall	30	13	32	22	0	0	17	84
31	Well furnished auditorium	31	13	22	26	0	0	23	84
32	Recreational facility	32	16	20	31	0	0	17	84
33	Vehicle parking space	33	15	28	11	2	0	28	84
34	Gymnasium facility	34	17	14	27	0	0	26	84
35	Qualified staff	35	17	27	28	0	0	12	84

36	Syllabus completion in time	36	8	26	26	0	0	24	84
37	Seminar presentation	37	20	19	20	4	0	21	84
38	GD & co-curricular activities	38	12	20	33	3	0	16	84

(Source: Field data)

The Table 4.4.01 gives the frequency of Kano attributes for the parameters. The table shows the attributes which are tabulated as A-Attractive, M- Must be, O- One Dimensional, R- Reverse, Q- Questionable and I- Indifferent.

The Questionable Attributes and Reverse attributes are found less in numbers. The Questionable attributes has not got much significance as it just indicates that the respondent has not understood the question. The reverse attribute indicates that the customers are even willing to pay not to have this feature or parameter in a product or service. The responses for the reverse attribute for the Website restriction parameter are 20 which is highest. This means that 20 male students from the 84, feel that there should not be any restrictions on the browsing any website in computer labs.

Table 4.4.02
Kano Category for the Male Students
The following table depicts Kano category for the male students. (n=84)

Sr	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Books availability	1	9.52	23.81	52.38	0.00	0.00	14.29	100	O
2	Journals availability	2	27.38	19.05	36.90	1.19	0.00	15.48	100	O
3	Library Staff behavior	3	10.71	33.33	33.33	0.00	0.00	22.62	100	M& O
4	Reading room availability	4	17.86	28.57	29.76	2.38	1.19	20.24	100	O
5	Computers with fast internet connection	5	14.29	35.71	33.33	3.57	0.00	13.10	100	M
6	Wi-Fi campus	6	34.52	10.71	26.19	1.19	0.00	27.38	100	A
7	Website restrictions	7	3.57	14.29	10.71	23.81	10.71	36.90	100	I
8	Latest software	8	21.43	26.19	25.00	2.38	0.00	25.00	100	M
9	Statistical packages for research	9	27.38	15.48	26.19	2.38	0.00	28.57	100	I
10	Communication development facilities	10	23.81	14.29	30.95	0.00	0.00	30.95	100	O&I
11	Campus interviews	11	19.05	21.43	38.10	0.00	1.19	20.24	100	O
12	Interview preparations	12	22.62	22.62	32.14	0.00	0.00	22.62	100	O
13	Corporate exposure	13	25.00	23.81	34.52	0.00	0.00	16.67	100	O
14	English communication development programs	14	38.10	14.29	22.62	1.19	0.00	23.81	100	A
15	Aptitude improvement	15	28.57	16.67	25.00	0.00	0.00	29.76	100	I
16	Alumni associations	16	20.24	19.05	21.43	0.00	1.19	38.10	100	I
17	Institute Brand name	17	19.05	14.29	35.71	0.00	1.19	29.76	100	O
18	Management festivals	18	25.00	16.67	38.10	0.00	0.00	20.24	100	O
19	Case studies & live projects	19	27.38	14.29	34.52	0.00	0.00	23.81	100	O
20	Counseling facilities	20	20.24	25.00	21.43	2.38	1.19	29.76	100	I
21	Guest lectures	21	22.62	15.48	21.43	1.19	0.00	39.29	100	I
22	Anti ragging cell	22	10.71	23.81	29.76	1.19	3.57	30.95	100	I
23	Canteen facility	23	25.00	25.00	30.95	0.00	0.00	19.05	100	O

24	Transportation facility	24	20.24	10.71	25.00	1.19	0.00	42.86	100	I
25	Medical first aid facility	25	25.00	21.43	28.57	0.00	1.19	23.81	100	O
26	Fee installment facility	26	17.86	22.62	33.33	0.00	0.00	26.19	100	O
27	Location of institute	27	23.81	11.90	17.86	8.33	3.57	34.52	100	I
28	Hostel facility	28	26.19	17.86	15.48	1.19	0.00	39.29	100	I
29	Well furnished classrooms	29	16.67	25.00	35.71	0.00	0.00	22.62	100	O
30	Well furnished seminar hall	30	15.48	38.10	26.19	0.00	0.00	20.24	100	M
31	Well furnished auditorium	31	15.48	26.19	30.95	0.00	0.00	27.38	100	O
32	Recreational facility	32	19.05	23.81	36.90	0.00	0.00	20.24	100	O
33	Vehicle parking space	33	17.86	33.33	13.10	2.38	0.00	33.33	100	I
34	Gymnasium facility	34	20.24	16.67	32.14	0.00	0.00	30.95	100	I
35	Qualified staff	35	20.24	32.14	33.33	0.00	0.00	14.29	100	O
36	Syllabus completion in time	36	9.52	30.95	30.95	0.00	0.00	28.57	100	M& O
37	Seminar presentation	37	23.81	22.62	23.81	4.76	0.00	25.00	100	I
38	GD & co-curricular activities	38	14.29	23.81	39.29	3.57	0.00	19.05	100	O

(Source: Field data)

The Table 4.4.02 shows calculation of Kano attributes in percentage and based on the maximum percentage of responses, categories of attribute for that parameter has been decided. From the table it is observed that majority of the attributes are One dimensional. Library staff behavior, Communication development facilities and Syllabus completion in time are the parameters in which there are more than one attributes which are having higher percentage. So these are not classified into any single category and are excluded from considering in M>O>A>I rule.

Table 4.4.03
Must be and One-Dimensional Attributes for the Male Students
Following table depicts the Must be and One-Dimensional attributes. (n=84)

Sr	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Computers with fast internet connection	5	14.29	35.71	33.33	3.57	0.00	13.10	100	M
2	Latest software	8	21.43	26.19	25.00	2.38	0.00	25.00	100	M
3	Well furnished seminar hall	30	15.48	38.10	26.19	0.00	0.00	20.24	100	M
4	Books availability	1	9.52	23.81	52.38	0.00	0.00	14.29	100	O
5	Journals availability	2	27.38	19.05	36.90	1.19	0.00	15.48	100	O
6	Reading room availability	4	17.86	28.57	29.76	2.38	1.19	20.24	100	O
7	Campus interviews	11	19.05	21.43	38.10	0.00	1.19	20.24	100	O
8	Interview preparations	12	22.62	22.62	32.14	0.00	0.00	22.62	100	O
9	Corporate exposure	13	25.00	23.81	34.52	0.00	0.00	16.67	100	O
10	Institute brand name	17	19.05	14.29	35.71	0.00	1.19	29.76	100	O
11	Management festivals	18	25.00	16.67	38.10	0.00	0.00	20.24	100	O
12	Case studies & live projects	19	27.38	14.29	34.52	0.00	0.00	23.81	100	O
13	Canteen facility	23	25.00	25.00	30.95	0.00	0.00	19.05	100	O
14	Medical first aid facility	25	25.00	21.43	28.57	0.00	1.19	23.81	100	O
15	Fee installment facility	26	17.86	22.62	33.33	0.00	0.00	26.19	100	O
16	Well furnished classrooms	29	16.67	25.00	35.71	0.00	0.00	22.62	100	O
17	Well furnished auditorium	31	15.48	26.19	30.95	0.00	0.00	27.38	100	O
18	Recreational facility	32	19.05	23.81	36.90	0.00	0.00	20.24	100	O
19	Qualified staff	35	20.24	32.14	33.33	0.00	0.00	14.29	100	O
20	GD & co-curricular activities	38	14.29	23.81	39.29	3.57	0.00	19.05	100	O

(Source: Field data)

M>O>A>I rule

By applying the rule of M>O>A>I, the parameters are grouped together based on their Kano category. So these attributes are arranged sequentially based on the Must be, One dimensional, Attractive and Indifferent attributes.

The Table 4.4.03 shows the Must be and One dimensional attributes. Computers with fast internet connection, latest software and well furnished seminar hall parameters are categorized under Must be attributes. And 17 out of 38 parameters are categorized under the One dimensional attributes.

Table 4.4.04
Attractive and Indifferent Attributes for the Male Students
The following table depicts the Attractive and Indifferent attributes. (n=84)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Wi-Fi campus	6	34.52	10.71	26.19	1.19	0.00	27.38	100	A
2	English communication development program	14	38.10	14.29	22.62	1.19	0.00	23.81	100	A
3	Website restrictions	7	3.57	14.29	10.71	23.81	10.71	36.90	100	I
4	Statistical packages for research	9	27.38	15.48	26.19	2.38	0.00	28.57	100	I
5	Aptitude improvement	15	28.57	16.67	25.00	0.00	0.00	29.76	100	I
6	Alumni associations	16	20.24	19.05	21.43	0.00	1.19	38.10	100	I
7	Counseling facilities	20	20.24	25.00	21.43	2.38	1.19	29.76	100	I
8	Guest lectures	21	22.62	15.48	21.43	1.19	0.00	39.29	100	I
9	Anti ragging cell	22	10.71	23.81	29.76	1.19	3.57	30.95	100	I
10	Transportation facility	24	20.24	10.71	25.00	1.19	0.00	42.86	100	I
11	Location of Institute	27	23.81	11.90	17.86	8.33	3.57	34.52	100	I
12	Hostel facility	28	26.19	17.86	15.48	1.19	0.00	39.29	100	I
13	Vehicle parking space	33	17.86	33.33	13.10	2.38	0.00	33.33	100	I
14	Gymnasium facility	34	20.24	16.67	32.14	0.00	0.00	30.95	100	I
15	Seminar presentation	37	23.81	22.62	23.81	4.76	0.00	25.00	100	I

(Source: Field data)

The Table 4.4.04 shows the Attractive and Indifferent attributes. Wi-Fi campus and English communication development program parameters are categorized under Attractive attributes. These parameters when fulfilled will create tremendous satisfaction. And 13 other parameters are categorized under Indifferent attributes. These parameters are having low influence or non considerable influence on the satisfaction level.

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Table 4.4.05
Extent of Satisfaction and Extent of Dissatisfaction for the Male Students
The following table depicts the values of Extent of satisfaction and Extent of Dissatisfaction for the parameters. (n=84)

Sr.	Parameter Name	Parameter No.	Parameter Category	Extent of Satisfaction	Extent of Dissatisfaction
1	Books availability	1	O	0.62	-0.76
2	Journals availability	2	O	0.65	-0.57
3	Library Staff behavior	3	M & O	0.44	-0.67
4	Reading room availability	4	O	0.49	-0.60
5	Computers with fast internet connection	5	M	0.49	-0.72
6	Wi-Fi campus	6	A	0.61	-0.37
7	Website restrictions	7	I	0.22	-0.38
8	Latest software	8	M	0.48	-0.52
9	Statistical packages for research	9	I	0.55	-0.43
10	Communication development facilities	10	O & I	0.55	-0.45
11	Campus interviews	11	O	0.58	-0.60
12	Interview preparations	12	O	0.55	-0.55
13	Corporate exposure	13	O	0.60	-0.58
14	English communication development programs	14	A	0.61	-0.37
15	Aptitude improvement	15	I	0.54	-0.42
16	Alumni associations	16	I	0.42	-0.41
17	Institute Brand name	17	O	0.55	-0.51
18	Management festivals	18	O	0.63	-0.55
19	Case studies & live projects	19	O	0.62	-0.49
20	Counseling facilities	20	I	0.43	-0.48
21	Guest lectures	21	I	0.45	-0.37
22	Anti ragging cell	22	I	0.43	-0.56
23	Canteen facility	23	O	0.56	-0.56
24	Transportation facility	24	I	0.46	-0.36
25	Medical first aid facility	25	O	0.54	-0.51
26	Fee installment facility	26	O	0.51	-0.56
27	Location of institute	27	I	0.47	-0.34
28	Hostel facility	28	I	0.42	-0.34
29	Well furnished classrooms	29	O	0.52	-0.61
30	Well furnished seminar hall	30	M	0.42	-0.64
31	Well furnished auditorium	31	O	0.46	-0.57
32	Recreational facility	32	O	0.56	-0.61
33	Vehicle parking space	33	I	0.32	-0.48
34	Gymnasium facility	34	I	0.52	-0.49
35	Qualified staff	35	O	0.54	-0.65
36	Syllabus completion in time	36	M & O	0.40	-0.62
37	Seminar presentation	37	I	0.50	-0.49
38	GD & co-curricular activities	38	O	0.56	-0.65

(Source: Field data)

As shown in Table 4.4.05 Extent of Satisfaction and Extent of Dissatisfaction for the parameters. The Extent of Satisfaction when indicates high positive value, student satisfaction will increase tremendously when the parameters or requirements are fulfilled. The low value of Extent of Satisfaction indicates the satisfaction of students will be less increased due to fulfilling the parameters or requirements.

Journals availability, Management festivals, books availability, case studies & live projects, Wi-Fi campus, English communication development programs these parameters are having high value for the Extent of Satisfaction. So these parameters are having high influence on the satisfaction level and can increase satisfaction level in tremendous amount.

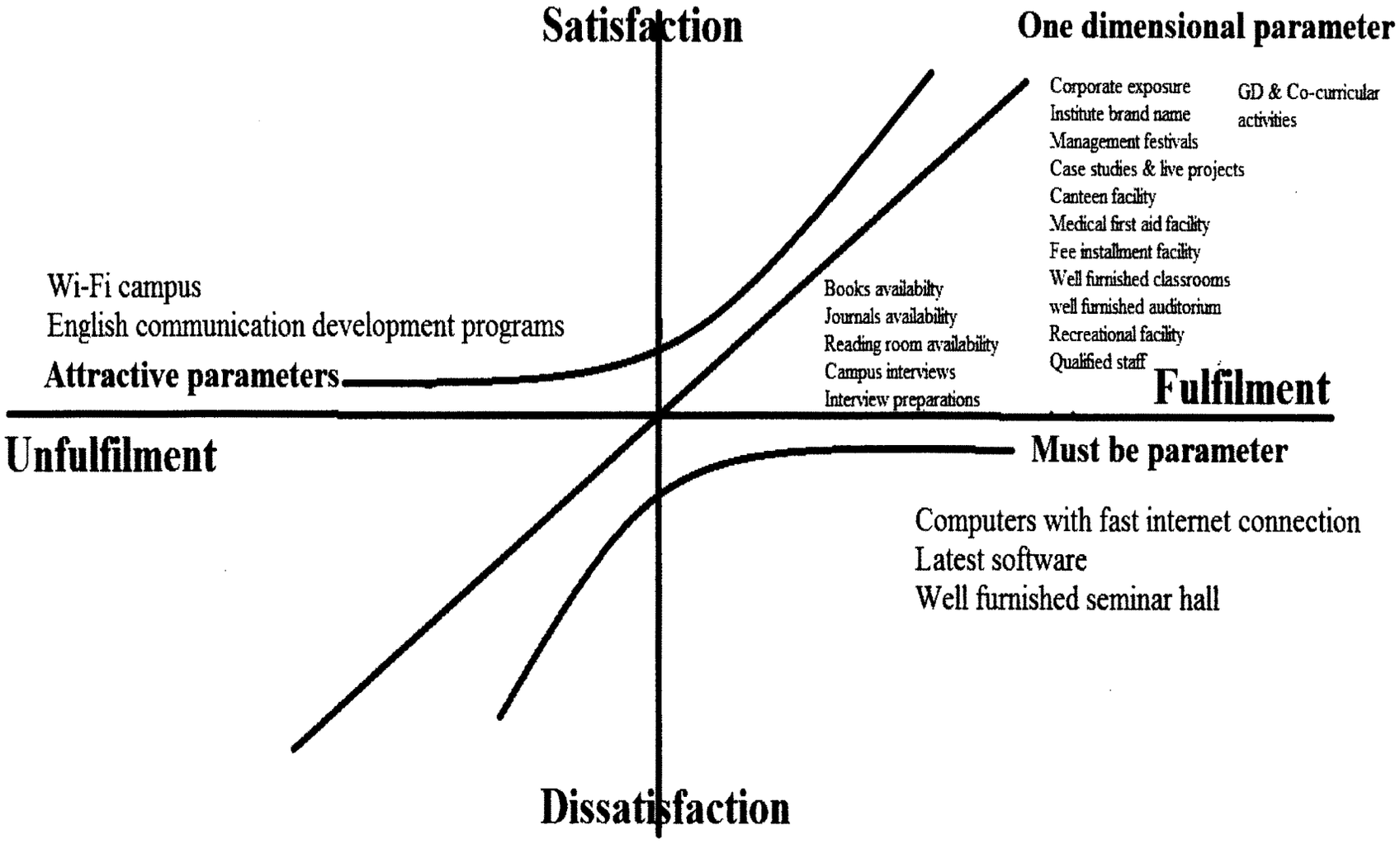
Website restrictions, vehicle parking space and syllabus completion in time are the parameters which are having low value for the Extent of Satisfaction, so these will enhance satisfaction level in low amount.

The high value of Extent of Dissatisfaction indicates student satisfaction level will decrease tremendously if these are not provided. The low value of Extent of Dissatisfaction indicates as the level of fulfillment of these parameters decrease there will be less increase in student dissatisfaction.

Books availability, computers with fast internet connection, library staff behavior, qualified staff, GD & co-curricular activities and well furnished seminar hall are the parameters which are having high value for the Extent of Dissatisfaction.

Location of the institute, hostel facility, transportation facility, guest lectures, English communication development program, Wi-Fi campus and website restrictions are the parameters which are having low values for the Extent of Dissatisfaction.

Figure 4.3
Kano Model for the Male Students



4.5 Data Analysis of Arts Graduate Students of the Three Management Institutes

Introduction

The data was collected through the six Arts graduate students from the Karmaveer Bhaurao Patil Institute of Business Education and research, Varye, Satara, Vasantraodada Patil Institute of Management Studies and Research, Sangli, Deshbhakta Ratnappa Kumbhar College of Commerce, Kolhapur.

The collected data was screened, categorized, coded and then fed in Ms-Excel for evaluation and analysis by Kano evaluation table, M>O>A>I rule, Extent of satisfaction and Extent of dissatisfaction.

Table 4.5.01
Kano Attributes Frequency for the Arts Graduate Students
Following table depicts the total parameter frequency for the Kano attributes. (n=6)

Sr.	Parameter Name	Parameter No.	A	M	O	R	Q	I	Total
1	Books availability	1	1	2	3	0	0	0	6
2	Journals availability	2	0	2	2	0	0	2	6
3	Library Staff behavior	3	1	1	2	0	0	2	6
4	Reading room availability	4	0	5	0	0	0	1	6
5	Computers with fast internet connection	5	1	1	3	0	0	1	6
6	Wi-Fi campus	6	2	0	1	1	0	2	6
7	Website restrictions	7	1	1	1	1	0	2	6
8	Latest software	8	1	3	1	0	0	1	6
9	Statistical packages for research	9	3	0	1	0	0	2	6
10	Communication development facilities	10	2	2	1	0	0	1	6
11	Campus interviews	11	2	2	2	0	0	0	6
12	Interview preparations	12	2	2	1	0	0	1	6
13	Corporate exposure	13	0	1	4	0	0	1	6
14	English communication development programs	14	4	0	1	0	0	1	6
15	Aptitude improvement	15	3	0	3	0	0	0	6
16	Alumni associations	16	2	0	1	0	0	3	6
17	Institute Brand name	17	1	1	2	0	0	2	6
18	Management festivals	18	1	1	2	0	0	2	6
19	Case studies & live projects	19	1	3	2	0	0	0	6
20	Counseling facilities	20	2	2	0	0	0	2	6
21	Guest lectures	21	2	1	1	0	0	2	6
22	Anti ragging cell	22	1	1	1	0	0	3	6
23	Canteen facility	23	2	0	1	0	0	3	6
24	Transportation facility	24	2	0	1	0	0	3	6
25	Medical first aid facility	25	1	0	2	0	0	3	6
26	Fee installment facility	26	0	2	1	0	0	3	6
27	Location of institute	27	3	0	0	1	0	2	6
28	Hostel facility	28	1	0	1	0	0	4	6
29	Well furnished classrooms	29	3	0	1	0	0	2	6
30	Well furnished seminar hall	30	4	1	0	0	0	1	6
31	Well furnished auditorium	31	2	1	1	0	0	2	6
32	Recreational facility	32	1	1	2	0	0	2	6
33	Vehicle parking space	33	1	1	0	0	0	4	6
34	Gymnasium facility	34	2	1	0	0	0	3	6
35	Qualified staff	35	1	3	2	0	0	0	6

36	Syllabus completion in time	36	0	0	4	0	0	2	6
37	Seminar presentation	37	2	3	1	0	0	0	6
38	GD & co-curricular activities	38	1	2	3	0	0	0	6

(Source: Field data)

The Table 4.5.01 gives the frequency of Kano attributes for the parameters. The table shows the attributes which are tabulated as A-Attractive, M-Must be, O-One Dimensional, R-Reverse, Q-Questionable and I-Indifferent.

The Questionable attributes and Reverse attributes are found less in numbers. The Questionable attributes has not got much significance as it just indicates that the respondent has not understood the question. The reverse attribute indicates that the customers are even willing to pay not to have this feature or parameter in a product or service.

Table 4.5.02
Kano Category for the Arts Graduate Students (n=6)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Books availability	1	16.67	33.33	**50.00**	0.00	0.00	0.00	100	O
2	Journals availability	2	0.00	33.33	33.33	0.00	0.00	33.33	100	M&O &I
3	Library Staff behavior	3	16.67	16.67	33.33	0.00	0.00	33.33	100	O&I
4	Reading room availability	4	0.00	**83.33**	0.00	0.00	0.00	16.67	100	M
5	Computers with fast internet connection	5	16.67	16.67	**50.00**	0.00	0.00	16.67	100	O
6	Wi-Fi campus	6	33.33	0.00	16.67	16.67	0.00	33.33	100	A & I
7	Website restrictions	7	16.67	16.67	16.67	16.67	0.00	33.33	100	I
8	Latest software	8	16.67	**50.00**	16.67	0.00	0.00	16.67	100	M
9	Statistical packages for research	9	50.00	0.00	16.67	0.00	0.00	33.33	100	A
10	Communication development facilities	10	33.33	33.33	16.67	0.00	0.00	16.67	100	A & M
11	Campus interviews	11	33.33	33.33	33.33	0.00	0.00	0.00	100	A&M &O
12	Interview preparations	12	33.33	33.33	16.67	0.00	0.00	16.67	100	A & M
13	Corporate exposure	13	0.00	16.67	**66.67**	0.00	0.00	16.67	100	O
14	English communication development programs	14	**66.67**	0.00	16.67	0.00	0.00	16.67	100	A
15	Aptitude improvement	15	50.00	0.00	50.00	0.00	0.00	0.00	100	A & O
16	Alumni associations	16	33.33	0.00	16.67	0.00	0.00	**50.00**	100	I
17	Institute Brand name	17	16.67	16.67	33.33	0.00	0.00	33.33	100	O & I
18	Management festivals	18	16.67	16.67	33.33	0.00	0.00	33.33	100	O & I
19	Case studies & live projects	19	16.67	**50.00**	33.33	0.00	0.00	0.00	100	M
20	Counseling facilities	20	33.33	33.33	0.00	0.00	0.00	33.33	100	A&M &I
21	Guest lectures	21	33.33	16.67	16.67	0.00	0.00	33.33	100	A & I
22	Anti ragging cell	22	16.67	16.67	16.67	0.00	0.00	**50.00**	100	I
23	Canteen facility	23	33.33	0.00	16.67	0.00	0.00	**50.00**	100	I
24	Transportation facility	24	33.33	0.00	16.67	0.00	0.00	**50.00**	100	I
25	Medical first aid facility	25	16.67	0.00	33.33	0.00	0.00	**50.00**	100	I
26	Fee installment facility	26	0.00	33.33	16.67	0.00	0.00	**50.00**	100	I
27	Location of institute	27	**50.00**	0.00	0.00	16.67	0.00	33.33	100	A
28	Hostel facility	28	16.67	0.00	16.67	0.00	0.00	**66.67**	100	I

29	Well furnished classrooms	29	**50.00**	0.00	16.67	0.00	0.00	33.33	100	A
30	Well furnished seminar hall	30	**66.67**	16.67	0.00	0.00	0.00	16.67	100	A
31	Well furnished auditorium	31	33.33	16.67	16.67	0.00	0.00	33.33	100	A & I
32	Recreational facility	32	16.67	16.67	33.33	0.00	0.00	33.33	100	O & I
33	Vehicle parking space	33	16.67	16.67	0.00	0.00	0.00	**66.67**	100	I
34	Gymnasium facility	34	33.33	16.67	0.00	0.00	0.00	**50.00**	100	I
35	Qualified staff	35	16.67	**50.00**	33.33	0.00	0.00	0.00	100	M
36	Syllabus completion in time	36	0.00	0.00	**66.67**	0.00	0.00	33.33	100	O
37	Seminar presentation	37	33.33	**50.00**	16.67	0.00	0.00	0.00	100	M
38	GD & co-curricular activities	38	16.67	33.33	**50.00**	0.00	0.00	0.00	100	O

(Source: Field data)

The Table 4.5.02 shows calculation of Kano attributes in percentage and based on the maximum percentage of responses, categories of attribute for that parameter has been decided. From the table it is observed that many parameters which are having highest responses for more than one attributes are not categorized under any single Attribute category. So these are excluded from considering in M>O>A>I rule.

Table 4.5.03
Must be and One-Dimensional Attributes for the Arts Graduate Students
Following table depicts the Must be and One dimensional attributes. (n=6)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Reading room availability	4	0.00	**83.33**	0.00	0.00	0.00	16.67	100	M
2	Latest software	8	16.67	**50.00**	16.67	0.00	0.00	16.67	100	M
3	Case studies & live projects	19	16.67	**50.00**	33.33	0.00	0.00	0.00	100	M
4	Qualified staff	35	16.67	**50.00**	33.33	0.00	0.00	0.00	100	M
5	Seminar presentation	37	33.33	**50.00**	16.67	0.00	0.00	0.00	100	M
6	Books availability	1	16.67	33.33	**50.00**	0.00	0.00	0.00	100	O
7	Computers with fast internet connection	5	16.67	16.67	**50.00**	0.00	0.00	16.67	100	O
8	Corporate exposure	13	0.00	16.67	**66.67**	0.00	0.00	16.67	100	O
9	Syllabus completion in time	36	0.00	0.00	**66.67**	0.00	0.00	33.33	100	O
10	GD & co-curricular activities	38	16.67	33.33	**50.00**	0.00	0.00	0.00	100	O

(Source: Field data)

M>O>A>I rule

By applying the rule of M>O>A>I, the parameters are grouped together based on their Kano category. So these attributes are arranged sequentially based on the Must be, One dimensional, Attractive and Indifferent attributes.

The Table 4.5.03 shows the parameters which are categorized under the Must be and One-dimensional attributes. Reading room availability, latest software, case studies and live projects, qualified staff and seminar presentation parameters are categorized under Must be attributes. And books availability, computers with fast internet connection, corporate exposure, syllabus completion in time parameters are categorized under One dimensional attributes.

Table 4.5.04
Attractive and Indifferent Attributes for the Arts Graduate Students
The following table depicts the Attractive and Indifferent attributes. (n=6)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Statistical packages for research	9	50.00	0.00	16.67	0.00	0.00	33.33	100	A
2	English communication development programs	14	66.67	0.00	16.67	0.00	0.00	16.67	100	A
3	Location of institute	27	50.00	0.00	0.00	16.67	0.00	33.33	100	A
4	Well furnished classrooms	29	50.00	0.00	16.67	0.00	0.00	33.33	100	A
5	Well furnished seminar hall	30	66.67	16.67	0.00	0.00	0.00	16.67	100	A
6	Website restrictions	7	16.67	16.67	16.67	16.67	0.00	33.33	100	I
7	Alumni associations	16	33.33	0.00	16.67	0.00	0.00	50.00	100	I
8	Anti ragging cell	22	16.67	16.67	16.67	0.00	0.00	50.00	100	I
9	Canteen facility	23	33.33	0.00	16.67	0.00	0.00	50.00	100	I
10	Transportation facility	24	33.33	0.00	16.67	0.00	0.00	50.00	100	I
11	Medical first aid facility	25	16.67	0.00	33.33	0.00	0.00	50.00	100	I
12	Fee installment facility	26	0.00	33.33	16.67	0.00	0.00	50.00	100	I
13	Hostel facility	28	16.67	0.00	16.67	0.00	0.00	66.67	100	I
14	Vehicle parking space	33	16.67	16.67	0.00	0.00	0.00	66.67	100	I
15	Gymnasium facility	34	33.33	16.67	0.00	0.00	0.00	50.00	100	I

(Source: Field data)

The Table 4.5.04 shows the Attractive and Indifferent attributes. Statistical packages for research, English communication development programs, location of institute, well furnished classrooms and well furnished seminar hall are categorized under the Attractive attributes.

Website restrictions, alumni associations, anti ragging cell, canteen facility, transportation facility, medical first aid facility, fee installment facility, hostel facility, vehicle parking space and gymnasium facility are categorized under the Indifferent attributes.

Table 4.5.05

Extent of Satisfaction and Extent of Dissatisfaction for the Arts Graduate Students

The following table depicts the values of Extent of satisfaction and Extent of Dissatisfaction for the parameters. (n=6)

Sr.	Parameter Name	Parameter No.	Parameter Category	Extent of Satisfaction	Extent of Dissatisfaction
1	Books availability	1	O	0.67	-0.83
2	Journals availability	2	M & O &I	0.33	-0.67
3	Library Staff behavior	3	O & I	0.50	-0.50
4	Reading room availability	4	M	0.00	-0.83
5	Computers with fast internet connection	5	O	0.67	-0.67
6	Wi-Fi campus	6	A & I	0.60	-0.20
7	Website restrictions	7	I	0.40	-0.40
8	Latest software	8	M	0.33	-0.67
9	Statistical packages for research	9	A	0.67	-0.17
10	Communication development facilities	10	A & M	0.50	-0.50
11	Campus interviews	11	A&M&O	0.67	-0.67
12	Interview preparations	12	A & M	0.50	-0.50
13	Corporate exposure	13	O	0.67	-0.83
14	English communication development programs	14	A	0.83	-0.17
15	Aptitude improvement	15	A & O	1.00	-0.50
16	Alumni associations	16	I	0.50	-0.17
17	Institute Brand name	17	O & I	0.50	-0.50
18	Management festivals	18	O & I	0.50	-0.50
19	Case studies & live projects	19	M	0.50	-0.83
20	Counseling facilities	20	A & M & I	0.33	-0.33
21	Guest lectures	21	A & I	0.50	-0.33
22	Anti ragging cell	22	I	0.33	-0.33
23	Canteen facility	23	I	0.50	-0.17
24	Transportation facility	24	I	0.50	-0.17
25	Medical first aid facility	25	I	0.50	-0.33
26	Fee installment facility	26	I	0.17	-0.50
27	Location of institute	27	A	0.60	0.00
28	Hostel facility	28	I	0.33	-0.17
29	Well furnished classrooms	29	A	0.67	-0.17
30	Well furnished seminar hall	30	A	0.67	-0.17
31	Well furnished auditorium	31	A & I	0.50	-0.33
32	Recreational facility	32	O & I	0.50	-0.50
33	Vehicle parking space	33	I	0.17	-0.17
34	Gymnasium facility	34	I	0.33	-0.17
35	Qualified staff	35	M	0.50	-0.83
36	Syllabus completion in time	36	O	0.67	-0.67
37	Seminar presentation	37	M	0.50	-0.67
38	GD & co-curricular activities	38	O	0.67	-0.83

(Source: Field data)

As shown in Table 4.5.05 Extent of Satisfaction and Extent of Dissatisfaction for the parameters. The Extent of Satisfaction when indicates high positive value, student satisfaction will increase tremendously when the parameters or requirements are fulfilled. The low value of Extent of Satisfaction indicates the satisfaction of students will be less increased due to fulfilling the parameters or requirements.

Aptitude improvement, English communication development programs, campus interviews are having high values for the Extent of Satisfaction.

Vehicle parking space, fee installment facility, journals availability, website restrictions, latest software, counseling facilities, hostel facility and gymnasium facility parameters re having low value for the Extent of satisfaction.

The high value of Extent of Dissatisfaction indicates student satisfaction level will decrease tremendously if these are not provided. The low value of Extent of Dissatisfaction indicates as the level of fulfillment of these parameters decrease there will be less increase in student dissatisfaction.

Corporate exposure, reading room availability, books availability, qualified staff, case studies and live projects parameters are having high values for the Extent of Dissatisfaction.

Statistical packages for research, English communication development programs, alumni associations, canteen, transportation, gymnasium and hostel facility, well furnished classrooms and seminar halls, vehicle parking space parameters are having low values for the Extent of Dissatisfaction.

4.6 Data analysis of Commerce students of the three Management Institutes

Introduction

The data was collected through the 47 Commerce graduate students from the Karmaveer Bhaurao Patil Institute of Business Education and research, Varye, Satara, Vasantraodada Patil Institute of Management Studies and Research, Sangli, Deshbhakta Ratnappa Kumbhar College of Commerce, Kolhapur.

The collected data was screened, categorized, coded and then fed in Ms-Excel for evaluation and analysis by Kano evaluation table, M>O>A>I rule, Extent of satisfaction and Extent of dissatisfaction.

Table 4.6.01
Kano Attributes Frequency for the Commerce Graduate Students
The following table depicts the frequency of Kano attributes. (n=47)

Sr.	Parameter Name	Parameter No.	A	M	O	R	Q	I	Total
1	Books availability	1	4	13	27	0	0	3	47
2	Journals availability	2	11	10	16	0	0	10	47
3	Library Staff behavior	3	7	14	18	0	0	8	47
4	Reading room availability	4	15	8	16	1	0	7	47
5	Computers with fast internet connection	5	8	20	10	2	0	7	47
6	Wi-Fi campus	6	12	7	11	1	0	16	47
7	Website restrictions	7	3	7	5	13	4	15	47
8	Latest software	8	9	16	12	1	0	9	47
9	Statistical packages for research	9	9	16	8	0	0	14	47
10	Communication development facilities	10	8	8	13	0	0	18	47
11	Campus interviews	11	7	8	23	0	1	8	47
12	Interview preparations	12	7	17	11	0	0	12	47
13	Corporate exposure	13	8	16	12	0	1	10	47
14	English communication development programs	14	11	9	18	0	0	9	47
15	Aptitude improvement	15	10	10	17	0	0	10	47
16	Alumni associations	16	10	12	9	0	1	15	47
17	Institute Brand name	17	11	8	20	0	1	7	47
18	Management festivals	18	14	5	18	0	1	9	47
19	Case studies & live projects	19	7	12	20	0	0	8	47
20	Counseling facilities	20	11	17	8	1	0	10	47
21	Guest lectures	21	10	7	13	0	2	15	47
22	Anti ragging cell	22	1	16	12	1	1	16	47
23	Canteen facility	23	14	12	13	1	0	7	47
24	Transportation facility	24	13	9	7	1	0	17	47
25	Medical first aid facility	25	11	10	10	0	1	15	47
26	Fee installment facility	26	10	15	14	0	0	8	47
27	Location of institute	27	6	10	8	4	3	16	47
28	Hostel facility	28	10	7	10	1	0	19	47
29	Well furnished classrooms	29	9	12	19	0	0	7	47
30	Well furnished seminar hall	30	4	16	11	0	0	16	47
31	Well furnished auditorium	31	9	11	13	0	0	14	47
32	Recreational facility	32	8	12	21	0	0	6	47
33	Vehicle parking space	33	5	16	9	0	0	17	47
34	Gymnasium facility	34	3	10	16	0	0	18	47
35	Qualified staff	35	4	17	20	0	0	6	47

36	Syllabus completion in time	36	4	13	18	1	0	11	47
37	Seminar presentation	37	9	11	12	0	1	14	47
38	GD & co-curricular activities	38	6	18	15	1	0	7	47

(Source: Field data)

The table 4.6.01 gives the frequency of Kano attributes for the parameters. The table shows the attributes which are tabulated as A-Attractive, M-Must be, O-One Dimensional, R-Reverse, Q-Questionable and I-Indifferent.

The Questionable Attributes and Reverse attributes are found less in numbers. The Questionable attributes has not got much significance as it just indicates that the respondent has not understood the question. The reverse attribute indicates that the customers are even willing to pay not to have this feature or parameter in a product or service.

Table 4.6.02
Kano Category for the Commerce Graduate Students
Following table depicts the Kano category of parameters. (n=47)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Books availability	1	8.51	27.66	57.45	0.00	0.00	6.38	100	O
2	Journals availability	2	23.40	21.28	34.04	0.00	0.00	21.28	100	O
3	Library Staff behavior	3	14.89	29.79	38.30	0.00	0.00	17.02	100	O
4	Reading room availability	4	31.91	17.02	34.04	2.13	0.00	14.89	100	O
5	Computers with fast internet connection	5	17.02	42.55	21.28	4.26	0.00	14.89	100	M
6	Wi-Fi campus	6	25.53	14.89	23.40	2.13	0.00	34.04	100	I
7	Website restrictions	7	6.38	14.89	10.64	27.66	8.51	31.91	100	I
8	Latest software	8	19.15	34.04	25.53	2.13	0.00	19.15	100	M
9	Statistical packages for research	9	19.15	34.04	17.02	0.00	0.00	29.79	100	M
10	Communication development facilities	10	17.02	17.02	27.66	0.00	0.00	38.30	100	I
11	Campus interviews	11	14.89	17.02	48.94	0.00	2.13	17.02	100	O
12	Interview preparations	12	14.89	36.17	23.40	0.00	0.00	25.53	100	M
13	Corporate exposure	13	17.02	34.04	25.53	0.00	2.13	21.28	100	M
14	English communication development programs	14	23.40	19.15	38.30	0.00	0.00	19.15	100	O
15	Aptitude improvement	15	21.28	21.28	36.17	0.00	0.00	21.28	100	O
16	Alumni associations	16	21.28	25.53	19.15	0.00	2.13	31.91	100	I
17	Institute Brand name	17	23.40	17.02	42.55	0.00	2.13	14.89	100	O
18	Management festivals	18	29.79	10.64	38.30	0.00	2.13	19.15	100	O
19	Case studies & live projects	19	14.89	25.53	42.55	0.00	0.00	17.02	100	O
20	Counseling facilities	20	23.40	36.17	17.02	2.13	0.00	21.28	100	M
21	Guest lectures	21	21.28	14.89	27.66	0.00	4.26	31.91	100	I
22	Anti ragging cell	22	2.13	34.04	25.53	2.13	2.13	34.04	100	M&I
23	Canteen facility	23	29.79	25.53	27.66	2.13	0.00	14.89	100	A
24	Transportation facility	24	27.66	19.15	14.89	2.13	0.00	36.17	100	I
25	Medical first aid facility	25	23.40	21.28	21.28	0.00	2.13	31.91	100	I
26	Fee installment facility	26	21.28	31.91	29.79	0.00	0.00	17.02	100	M
27	Location of institute	27	12.77	21.28	17.02	8.51	6.38	34.04	100	I
28	Hostel facility	28	21.28	14.89	21.28	2.13	0.00	40.43	100	I
29	Well furnished classrooms	29	19.15	25.53	40.43	0.00	0.00	14.89	100	O
30	Well furnished seminar hall	30	8.51	34.04	23.40	0.00	0.00	34.04	100	M&I

31	Well furnished auditorium	31	19.15	23.40	27.66	0.00	0.00	29.79	100	I
32	Recreational facility	32	17.02	25.53	44.68	0.00	0.00	12.77	100	O
33	Vehicle parking space	33	10.64	34.04	19.15	0.00	0.00	36.17	100	I
34	Gymnasium facility	34	6.38	21.28	34.04	0.00	0.00	38.30	100	I
35	Qualified staff	35	8.51	36.17	42.55	0.00	0.00	12.77	100	O
36	Syllabus completion in time	36	8.51	27.66	38.30	2.13	0.00	23.40	100	O
37	Seminar presentation	37	19.15	23.40	25.53	0.00	2.13	29.79	100	I
38	GD & co-curricular activities	38	12.77	38.30	31.91	2.13	0.00	14.89	100	M

(Source: Field data)

The Table 4.6.02 shows calculation of Kano attributes in percentage and based on the maximum percentage of responses, categories of attribute for that parameter has been decided. From the table it is observed that well furnished seminar hall and anti ragging cell parameters which are having highest responses for the more than one attributes are cannot be assigned with any single attribute category. So these are excluded from considering in M>O>A>I rule.

Table 4.6.03
Must be and One-Dimensional Attributes for the Commerce Graduate Students
Following table depicts the Must be and One dimensional attributes. (n=47)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Computers with fast internet connection	5	17.02	42.55	21.28	4.26	0.00	14.89	100	M
2	Latest software	8	19.15	34.04	25.53	2.13	0.00	19.15	100	M
3	Statistical packages for research	9	19.15	34.04	17.02	0.00	0.00	29.79	100	M
4	Interview preparations	12	14.89	36.17	23.40	0.00	0.00	25.53	100	M
5	Corporate exposure	13	17.02	34.04	25.53	0.00	2.13	21.28	100	M
6	Counseling facilities	20	23.40	36.17	17.02	2.13	0.00	21.28	100	M
7	Fee installment facility	26	21.28	31.91	29.79	0.00	0.00	17.02	100	M
8	GD & co-curricular activities	38	12.77	38.30	31.91	2.13	0.00	14.89	100	M
9	Books availability	1	8.51	27.66	57.45	0.00	0.00	6.38	100	O
10	Journals availability	2	23.40	21.28	34.04	0.00	0.00	21.28	100	O
11	Library Staff behavior	3	14.89	29.79	38.30	0.00	0.00	17.02	100	O
12	Reading room availability	4	31.91	17.02	34.04	2.13	0.00	14.89	100	O
13	Campus interviews	11	14.89	17.02	48.94	0.00	2.13	17.02	100	O
14	English communication development programs	14	23.40	19.15	38.30	0.00	0.00	19.15	100	O
15	Aptitude improvement	15	21.28	21.28	36.17	0.00	0.00	21.28	100	O
16	Institute Brand name	17	23.40	17.02	42.55	0.00	2.13	14.89	100	O
17	Management festivals	18	29.79	10.64	38.30	0.00	2.13	19.15	100	O
18	Case studies & live projects	19	14.89	25.53	42.55	0.00	0.00	17.02	100	O
19	Well furnished classrooms	29	19.15	25.53	40.43	0.00	0.00	14.89	100	O
20	Recreational facility	32	17.02	25.53	44.68	0.00	0.00	12.77	100	O
21	Qualified staff	35	8.51	36.17	42.55	0.00	0.00	12.77	100	O
22	Syllabus completion in time	36	8.51	27.66	38.30	2.13	0.00	23.40	100	O

(Source: Field data)

M>O>A>I rule

By applying the rule of M>O>A>I, the parameters are grouped together based on their Kano category. So these attributes are arranged sequentially based on the Must be, One dimensional, Attractive and Indifferent attributes.

The Table 4.6.03 shows the Must be and One dimensional attributes. The parameters which are categorized under the Must be parameters are taken for granted by the students. Non fulfillment of these will create dissatisfaction among the students.

Computers with fast internet connection, Latest software, Statistical packages for research, Interview preparations, corporate exposure, Counseling facilities, Fee installment facility, GD and co-curricular activities are categorized under Must be attributes.

The parameters which are categorized under One dimensional attributes; there is linear relationship between the level of fulfillment and satisfaction level of the students. As the level of fulfillment increases the level of satisfaction also increases. 14 out of 38 parameters are categorized under the One dimensional attributes.

Table 4.6.04
Attractive and Indifferent Attributes for the Commerce Graduate Students
The following table depicts the Attractive and Indifferent attributes. (n=47)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Canteen facility	23	29.79	25.53	27.66	2.13	0.00	14.89	100	A
2	Wi-Fi campus	6	25.53	14.89	23.40	2.13	0.00	34.04	100	I
3	Website restrictions	7	6.38	14.89	10.64	27.66	8.51	31.91	100	I
4	Communication development facilities	10	17.02	17.02	27.66	0.00	0.00	38.30	100	I
5	Alumni associations	16	21.28	25.53	19.15	0.00	2.13	31.91	100	I
6	Guest lecture	21	21.28	14.89	27.66	0.00	4.26	31.91	100	I
7	Transportation facility	24	27.66	19.15	14.89	2.13	0.00	36.17	100	I
8	Medical first aid facility	25	23.40	21.28	21.28	0.00	2.13	31.91	100	I
9	Location of institute	27	12.77	21.28	17.02	8.51	6.38	34.04	100	I
10	Hostel facility	28	21.28	14.89	21.28	2.13	0.00	40.43	100	I
11	Well furnished auditorium	31	19.15	23.40	27.66	0.00	0.00	29.79	100	I
12	Vehicle parking space	33	10.64	34.04	19.15	0.00	0.00	36.17	100	I
13	Gymnasium facility	34	6.38	21.28	34.04	0.00	0.00	38.30	100	I
14	Seminar presentation	37	19.15	23.40	25.53	0.00	2.13	29.79	100	I

(Source: Field data)

The Table 4.6.04 shows the Attractive and Indifferent attributes of the Commerce graduate students. Canteen facility is the only parameter which has been categorized under the Attractive attribute.

Wi-Fi campus, website restrictions, communication development facilities, alumni associations, guest lecture, transportation facility, medical first aid facility, location of the institute, hostel facility, well furnished auditorium, vehicle parking space, gymnasium facility and seminar presentation are categorized under the Indifferent attribute. So these parameters are not having much impact on the satisfaction level irrespective of their fulfillment level.

Table 4.6.05

Extent of Satisfaction and Extent of Dissatisfaction for the Commerce Graduate Students

The following table depicts the values of Extent of satisfaction and Extent of Dissatisfaction for the parameters. (n=47)

Sr.	Parameter Name	Parameter No.	Parameter Category	Extent of Satisfaction	Extent of Dissatisfaction
1	Books availability	1	O	0.66	-0.85
2	Journals availability	2	O	0.57	-0.55
3	Library Staff behavior	3	O	0.53	-0.68
4	Reading room availability	4	O	0.67	-0.52
5	Computers with fast internet connection	5	M	0.40	-0.67
6	Wi-Fi campus	6	I	0.50	-0.39
7	Website restrictions	7	I	0.27	-0.40
8	Latest software	8	M	0.46	-0.61
9	Statistical packages for research	9	M	0.36	-0.51
10	Communication development facilities	10	I	0.45	-0.45
11	Campus interviews	11	O	0.65	-0.67
12	Interview preparations	12	M	0.38	-0.60
13	Corporate exposure	13	M	0.43	-0.61
14	English communication development programs	14	O	0.62	-0.57
15	Aptitude improvement	15	O	0.57	-0.57
16	Alumni associations	16	I	0.41	-0.46
17	Institute Brand name	17	O	0.67	-0.61
18	Management festivals	18	O	0.70	-0.50
19	Case studies & live projects	19	O	0.57	-0.68
20	Counseling facilities	20	M	0.41	-0.54
21	Guest lectures	21	I	0.51	-0.44
22	Anti ragging cell	22	M & I	0.29	-0.62
23	Canteen facility	23	A	0.59	-0.54
24	Transportation facility	24	I	0.43	-0.35
25	Medical first aid facility	25	I	0.46	-0.43
26	Fee installment facility	26	M	0.51	-0.62
27	Location of institute	27	I	0.35	-0.45
28	Hostel facility	28	I	0.43	-0.37
29	Well furnished classrooms	29	O	0.60	-0.66
30	Well furnished seminar hall	30	M & I	0.32	-0.57
31	Well furnished auditorium	31	I	0.47	-0.51
32	Recreational facility	32	O	0.62	-0.70
33	Vehicle parking space	33	I	0.30	-0.53
34	Gymnasium facility	34	I	0.40	-0.55
35	Qualified staff	35	O	0.51	-0.79
36	Syllabus completion in time	36	O	0.48	-0.67
37	Seminar presentation	37	I	0.46	-0.50
38	GD & co-curricular activities	38	M	0.46	-0.72

(Source: Field data)

As shown in Table 4.6.05 Extent of Satisfaction and Extent of Dissatisfaction for the parameters. The Extent of Satisfaction when indicates high positive value, student satisfaction will increase tremendously when the parameters or requirements are fulfilled. The low value of Extent of Satisfaction indicates the satisfaction of students will be less increased due to fulfilling the parameters or requirements.

The high value of Extent of Dissatisfaction indicates student satisfaction level will decrease tremendously if these are not provided. The low value of Extent of Dissatisfaction indicates as the level of fulfillment of these parameters decrease there will be less increase in student dissatisfaction.

4.7 Data Analysis of Science Graduate Students of the Three Management Institutes

Introduction

The data was collected through the 18 respondents having Science graduation from the Karmaveer Bhaurao Patil Institute of Business Education and Research, Varye, Satara, Vasantraodada Patil Institute of Management Studies and Research, Sangli, Deshbhakta Ratnappa Kumbhar College of Commerce, Kolhapur, the total 18 respondents were Science graduates.

The collected data was screened, categorized, coded and then fed in Ms-Excel for evaluation and analysis by Kano evaluation table, M>O>A>I rule, Extent of satisfaction and Extent of dissatisfaction.

Table 4.7.01
Kano Attributes Frequency for the Science Students
Following table depicts the Kano attributes frequency for the parameters. (n=18)

Sr.	Parameter Name	Parameter No.	A	M	O	R	Q	I	Total
1	Books availability	1	1	2	11	0	0	4	18
2	Journals availability	2	3	4	8	0	0	3	18
3	Library Staff behavior	3	4	6	2	0	1	5	18
4	Reading room availability	4	2	7	5	0	0	4	18
5	Computers with fast internet connection	5	1	7	7	0	0	3	18
6	Wi-Fi campus	6	7	2	4	1	0	4	18
7	Website restrictions	7	0	4	1	7	0	6	18
8	Latest software	8	6	4	5	0	0	3	18
9	Statistical packages for research	9	2	5	6	0	0	5	18
10	Communication development facilities	10	5	2	5	1	0	5	18
11	Campus interviews	11	4	7	3	0	0	4	18
12	Interview preparations	12	3	4	5	0	0	6	18
13	Corporate exposure	13	5	3	6	0	0	4	18
14	English communication development programs	14	6	6	4	0	0	2	18
15	Aptitude improvement	15	3	7	4	0	0	4	18
16	Alumni associations	16	0	6	6	0	0	6	18
17	Institute Brand name	17	4	1	10	0	0	3	18
18	Management festivals	18	5	2	8	0	0	3	18
19	Case studies & live projects	19	2	3	10	0	0	3	18
20	Counseling facilities	20	4	4	6	1	0	3	18
21	Guest lectures	21	4	5	4	0	1	4	18
22	Anti ragging cell	22	5	5	4	1	0	3	18
23	Canteen facility	23	3	2	5	0	0	8	18
24	Transportation facility	24	7	2	0	0	0	9	18
25	Medical first aid facility	25	7	6	2	0	0	3	18
26	Fee installment facility	26	4	4	9	0	0	1	18
27	Location of institute	27	3	4	4	2	1	4	18
28	Hostel facility	28	6	3	2	0	0	7	18
29	Well furnished classrooms	29	5	3	6	0	0	4	18
30	Well furnished seminar hall	30	4	5	6	0	0	3	18
31	Well furnished auditorium	31	2	5	6	0	0	5	18
32	Recreational facility	32	0	5	7	0	0	6	18
33	Vehicle parking space	33	4	4	3	0	0	7	18
34	Gymnasium facility	34	7	4	1	0	0	6	18
35	Qualified staff	35	3	6	7	0	0	2	18

36	Syllabus completion in time	36	1	4	7	0	0	6	18
37	Seminar presentation	37	3	6	4	1	0	4	18
38	GD & co-curricular activities	38	3	4	7	1	0	3	18

(Source: Field data)

The table 4.7.01 gives the frequency of Kano attributes for the parameters. The table shows the attributes which are tabulated as A-Attractive, M-Must be, O-One Dimensional, R- Reverse, Q- Questionable and I-Indifferent.

The Questionable Attributes and Reverse attributes are found less in numbers. The Questionable attributes has not got much significance as it just indicates that the respondent has not understood the question. The reverse attribute indicates that the customers are even willing to pay not to have this feature or parameter in a product or service.

Table 4.7.02
Kano Category for the Science Students
Following table depicts the Kano Category for the Science Students. (n=18)

Sr	Parameter Name	Parameter No.	A (in%)	M (in%)	O (in%)	R (in%)	Q (in%)	I (in%)	Total	Category
1	Books availability	1	5.56	11.11	61.11	0.00	0.00	22.22	100	O
2	Journals availability	2	16.67	22.22	44.44	0.00	0.00	16.67	100	O
3	Library Staff behavior	3	22.22	33.33	11.11	0.00	5.56	27.78	100	M
4	Reading room availability	4	11.11	38.89	27.78	0.00	0.00	22.22	100	M
5	Computers with fast internet connection	5	5.56	38.89	38.89	0.00	0.00	16.67	100	M&O
6	Wi-Fi campus	6	38.89	11.11	22.22	5.56	0.00	22.22	100	A
7	Website restrictions	7	0.00	22.22	5.56	38.89	0.00	33.33	100	R
8	Latest software	8	33.33	22.22	27.78	0.00	0.00	16.67	100	A
9	Statistical packages for research	9	11.11	27.78	33.33	0.00	0.00	27.78	100	O
10	Communication development facilities	10	27.78	11.11	27.78	5.56	0.00	27.78	100	A&O&I
11	Campus interviews	11	22.22	38.89	16.67	0.00	0.00	22.22	100	M
12	Interview preparations	12	16.67	22.22	27.78	0.00	0.00	33.33	100	I
13	Corporate exposure	13	27.78	16.67	33.33	0.00	0.00	22.22	100	O
14	English communication development programs	14	33.33	33.33	22.22	0.00	0.00	11.11	100	A & M
15	Aptitude improvement	15	16.67	38.89	22.22	0.00	0.00	22.22	100	M
16	Alumni associations	16	0.00	33.33	33.33	0.00	0.00	33.33	100	M&O&I
17	Institute Brand name	17	22.22	5.56	55.56	0.00	0.00	16.67	100	O
18	Management festivals	18	27.78	11.11	44.44	0.00	0.00	16.67	100	O
19	Case studies & live projects	19	11.11	16.67	55.56	0.00	0.00	16.67	100	O
20	Counseling facilities	20	22.22	22.22	33.33	5.56	0.00	16.67	100	O
21	Guest lectures	21	22.22	27.78	22.22	0.00	5.56	22.22	100	M
22	Anti ragging cell	22	27.78	27.78	22.22	5.56	0.00	16.67	100	A & M
23	Canteen facility	23	16.67	11.11	27.78	0.00	0.00	44.44	100	I
24	Transportation facility	24	38.89	11.11	0.00	0.00	0.00	50.00	100	I
25	Medical first aid facility	25	38.89	33.33	11.11	0.00	0.00	16.67	100	A

26	Fee installment facility	26	22.22	22.22	50.00	0.00	0.00	5.56	100	O
27	Location of institute	27	16.67	22.22	22.22	11.11	5.56	22.22	100	M&O&I
28	Hostel facility	28	33.33	16.67	11.11	0.00	0.00	**38.89**	100	I
29	Well furnished classrooms	29	27.78	16.67	33.33	0.00	0.00	22.22	100	O
30	Well furnished seminar hall	30	22.22	27.78	33.33	0.00	0.00	16.67	100	O
31	Well furnished auditorium	31	11.11	27.78	**33.33**	0.00	0.00	27.78	100	O
32	Recreational facility	32	0.00	27.78	**38.89**	0.00	0.00	33.33	100	O
33	Vehicle parking space	33	22.22	22.22	16.67	0.00	0.00	**38.89**	100	I
34	Gymnasium facility	34	**38.89**	22.22	5.56	0.00	0.00	33.33	100	A
35	Qualified staff	35	16.67	33.33	**38.89**	0.00	0.00	11.11	100	O
36	Syllabus completion in time	36	5.56	22.22	**38.89**	0.00	0.00	33.33	100	O
37	Seminar presentation	37	16.67	33.33	22.22	5.56	0.00	22.22	100	M
38	GD & co-curricular activities	38	16.67	22.22	**38.89**	5.56	0.00	16.67	100	O

(Source: Field data)

The Table 4.7.02 shows that calculation of Kano attributes in percentage and based on the maximum percentage of responses, categories of attribute for that parameter has been decided. From the table it is observed that some parameters which are having highest responses for the more than one attributes cannot be assigned with single attribute category. So these are excluded from considering in M>O>A>I rule.

Table 4.7.03
Must be and One-Dimensional Attributes for the Science Students
Following table depicts the Must be and One dimensional attributes. (n=18)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Library Staff behavior	3	22.22	33.33	11.11	0.00	5.56	27.78	100	M
2	Reading room availability	4	11.11	38.89	27.78	0.00	0.00	22.22	100	M
3	Campus interviews	11	22.22	38.89	16.67	0.00	0.00	22.22	100	M
4	Aptitude improvement	15	16.67	38.89	22.22	0.00	0.00	22.22	100	M
5	Guest lectures	21	22.22	27.78	22.22	0.00	5.56	22.22	100	M
6	Seminar presentation	37	16.67	33.33	22.22	5.56	0.00	22.22	100	M
7	Books availability	1	5.56	11.11	61.11	0.00	0.00	22.22	100	O
8	Journals availability	2	16.67	22.22	44.44	0.00	0.00	16.67	100	O
9	Statistical packages for research	9	11.11	27.78	33.33	0.00	0.00	27.78	100	O
10	Corporate exposure	13	27.78	16.67	33.33	0.00	0.00	22.22	100	O
11	Institute Brand name	17	22.22	5.56	55.56	0.00	0.00	16.67	100	O
12	Management festivals	18	27.78	11.11	44.44	0.00	0.00	16.67	100	O
13	Case studies & live projects	19	11.11	16.67	55.56	0.00	0.00	16.67	100	O
14	Counseling facilities	20	22.22	22.22	33.33	5.56	0.00	16.67	100	O
15	Fee installment facility	26	22.22	22.22	50.00	0.00	0.00	5.56	100	O
16	Well furnished classrooms	29	27.78	16.67	33.33	0.00	0.00	22.22	100	O
17	Well furnished seminar hall	30	22.22	27.78	33.33	0.00	0.00	16.67	100	O
18	Well furnished auditorium	31	11.11	27.78	33.33	0.00	0.00	27.78	100	O
19	Recreational facility	32	0.00	27.78	38.89	0.00	0.00	33.33	100	O
20	Qualified staff	35	16.67	33.33	38.89	0.00	0.00	11.11	100	O
21	Syllabus completion in time	36	5.56	22.22	38.89	0.00	0.00	33.33	100	O
22	GD & co-curricular activities	38	16.67	22.22	38.89	5.56	0.00	16.67	100	O

(Source: Field data)

M>O>A>I rule

By applying the rule of M>O>A>I, the parameters are grouped together based on their Kano category. So these attributes are arranged sequentially based on the Must be, One dimensional, Attractive and Indifferent attributes.

The Table 4.7.03 shows the Must be and One dimensional attributes. The parameters which are categorized under the Must be attributes are taken for granted by the students. Non fulfillment of these will create dissatisfaction among the students. Library Staff behavior, Reading room availability, Campus interviews, Aptitude improvement, Guest lectures, Seminar presentation are categorized under Must be attributes.

The parameters which are categorized under One dimensional attributes; there is linear relationship between the level of fulfillment and satisfaction level of the students. As the level of fulfillment increases the level of satisfaction also increases. 16 out of 38 parameters are categorized under the One dimensional attributes.

Table 4.7.04
Attractive and Indifferent Attributes for the Science Students
The following table depicts the Attractive and Indifferent attributes. (n=18)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Wi-Fi campus	6	**38.89**	11.11	22.22	5.56	0.00	22.22	100	A
2	Latest software	8	33.33	22.22	27.78	0.00	0.00	16.67	100	A
3	Medical first aid facility	25	**38.89**	33.33	11.11	0.00	0.00	16.67	100	A
4	Gymnasium facility	34	**38.89**	22.22	5.56	0.00	0.00	33.33	100	A
5	Interview preparations	12	16.67	22.22	27.78	0.00	0.00	33.33	100	I
6	Canteen facility	23	16.67	11.11	27.78	0.00	0.00	44.44	100	I
7	Transportation facility	24	38.89	11.11	0.00	0.00	0.00	50.00	100	I
8	Hostel facility	28	33.33	16.67	11.11	0.00	0.00	**38.89**	100	I
9	Vehicle parking space	33	22.22	22.22	16.67	0.00	0.00	**38.89**	100	I

(Source: Field data)

The Table 4.7.04 shows the Wi-Fi campus, latest software, medical first aid facility and gymnasium facility are categorized under Attractive attributes. So these parameters when provided will create more than proportional satisfaction among the students of the Science graduate students.

Interview preparations, canteen facility, transportation facility, hostel facility and vehicle parking space are categorized under the Indifferent attributes. So these parameters are not going to have much impact on the satisfaction level of Science graduate students.

Table 4.7.05
Extent of Satisfaction and Extent of Dissatisfaction for the Science Students
The following table depicts the values of Extent of satisfaction and Extent of Dissatisfaction for the parameters. (n=18)

Sr.	Parameter Name	Parameter No.	Parameter Category	Extent of Satisfaction	Extent of Dissatisfaction
1	Books availability	1	O	0.67	-0.72
2	Journals availability	2	O	0.61	-0.67
3	Library Staff behavior	3	M	0.35	-0.47
4	Reading room availability	4	M	0.39	-0.67
5	Computers with fast internet connection	5	M & O	0.44	-0.78
6	Wi-Fi campus	6	A	0.65	-0.35
7	Website restrictions	7	R	0.09	-0.45
8	Latest software	8	A	0.61	-0.50
9	Statistical packages for research	9	O	0.44	-0.61
10	Communication development facilities	10	A & O & I	0.59	-0.41
11	Campus interviews	11	M	0.39	-0.56
12	Interview preparations	12	I	0.44	-0.50
13	Corporate exposure	13	O	0.61	-0.50
14	English communication development programs	14	A & M	0.56	-0.56
15	Aptitude improvement	15	M	0.39	-0.61
16	Alumni associations	16	M & O & I	0.33	-0.67
17	Institute Brand name	17	O	0.78	-0.61
18	Management festivals	18	O	0.72	-0.56
19	Case studies & live projects	19	O	0.67	-0.72
20	Counseling facilities	20	O	0.59	-0.59
21	Guest lectures	21	M	0.47	-0.53
22	Anti ragging cell	22	A & M	0.53	-0.53
23	Canteen facility	23	I	0.44	-0.39
24	Transportation facility	24	I	0.39	-0.11
25	Medical first aid facility	25	A	0.50	-0.44
26	Fee installment facility	26	O	0.72	-0.72
27	Location of institute	27	M & O & I	0.47	-0.53
28	Hostel facility	28	I	0.44	-0.28
29	Well furnished classrooms	29	O	0.61	-0.50
30	Well furnished seminar hall	30	O	0.56	-0.61
31	Well furnished auditorium	31	O	0.44	-0.61
32	Recreational facility	32	O	0.39	-0.67
33	Vehicle parking space	33	I	0.39	-0.39
34	Gymnasium facility	34	A	0.44	-0.28
35	Qualified staff	35	O	0.56	-0.72
36	Syllabus completion in time	36	O	0.44	-0.61
37	Seminar presentation	37	M	0.41	-0.59
38	GD & co-curricular activities	38	O	0.59	-0.65

(Source: Field data)

As shown in Table 4.7.05 Extent of Satisfaction and Extent of Dissatisfaction for the parameters. The Extent of Satisfaction when indicates high positive value, student satisfaction will increase tremendously when the parameters or requirements are fulfilled. The low value of Extent of Satisfaction indicates the satisfaction of students will be less increased due to fulfilling the parameters or requirements.

The high value of Extent of Dissatisfaction indicates student satisfaction level will decrease tremendously if these are not provided. The low value of Extent of Dissatisfaction indicates as the level of fulfillment of these parameters decrease there will be less increase in student dissatisfaction.

4.8 Data Analysis of Professional Course Graduate Students of the Three Management Institutes

Introduction

The data was collected through the 101 Professional course graduate students from the Karmaveer Bhaurao Patil Institute of Business Education and research, Varye, Satara, Vasantraodada Patil Institute of Management Studies and Research, Sangli, Deshbhakta Ratnappa Kumbhar College of Commerce, Kolhapur.

The collected data was screened, categorized, coded and then fed in Ms-Excel for evaluation and analysis by Kano evaluation table, M>O>A>I rule, Extent of satisfaction and Extent of dissatisfaction.

Table 4.8.01
Kano Attributes Frequency for the Professional Course Graduate Students (n=101)

Sr.	Parameter Name	Parameter No.	A	M	O	R	Q	I	Total
1	Books availability	1	7	32	48	2	0	12	101
2	Journals availability	2	26	20	39	1	0	15	101
3	Library Staff behavior	3	10	30	37	1	1	22	101
4	Reading room availability	4	16	29	35	1	1	19	101
5	Computers with fast internet connection	5	14	29	44	1	0	13	101
6	Wi-Fi campus	6	33	10	27	1	1	29	101
7	Website restrictions	7	6	11	7	34	10	33	101
8	Latest software	8	20	21	36	1	1	22	101
9	Statistical packages for research	9	30	11	31	3	2	24	101
10	Communication development facilities	10	26	18	32	0	0	25	101
11	Campus interviews	11	17	24	50	0	0	10	101
12	Interview preparations	12	27	16	41	0	1	16	101
13	Corporate exposure	13	34	16	41	0	1	9	101
14	English communication development programs	14	35	14	29	1	0	22	101
15	Aptitude improvement	15	23	18	36	1	0	23	101
16	Alumni associations	16	21	21	24	0	0	35	101
17	Institute Brand name	17	19	13	45	0	0	24	101
18	Management festivals	18	26	24	40	0	0	11	101
19	Case studies & live projects	19	27	23	24	0	1	26	101
20	Counseling facilities	20	22	16	31	1	1	30	101
21	Guest lectures	21	32	18	21	1	0	29	101
22	Anti ragging cell	22	17	23	26	1	4	30	101
23	Canteen facility	23	17	25	43	0	0	16	101
24	Transportation facility	24	16	12	32	0	0	41	101
25	Medical first aid facility	25	21	23	34	0	0	23	101
26	Fee installment facility	26	13	21	44	0	1	22	101
27	Location of institute	27	29	11	17	4	3	37	101
28	Hostel facility	28	29	18	14	1	0	39	101
29	Well furnished classrooms	29	14	29	36	0	0	22	101
30	Well furnished seminar hall	30	19	36	29	0	0	17	101
31	Well furnished auditorium	31	17	26	37	0	0	21	101
32	Recreational facility	32	26	24	29	1	0	21	101
33	Vehicle parking space	33	20	25	20	3	1	32	101
34	Gymnasium facility	34	29	13	31	0	0	28	101
35	Qualified staff	35	13	36	41	0	0	11	101
36	Syllabus completion in time	36	13	37	33	0	0	18	101
37	Seminar presentation	37	16	22	32	4	3	24	101
38	GD & co-curricular activities	38	13	28	43	3	1	13	101

(Source: Field data)

The table 4.8.01 gives the frequency of Kano attributes for the parameters. The table shows the attributes which are tabulated as A-Attractive, M-Must be, O-One Dimensional, R-Reverse, Q-Questionable and I-Indifferent.

The Questionable attributes and Reverse attributes are found less in numbers. The Questionable attributes has not got much significance as it just indicates that the respondent has not understood the question. The reverse attribute indicates that the customers are even willing to pay not to have theses parameters in a product or service.

Table 4.8.02
Kano Category for the Professional Course Graduate Students
Following table depicts the Kano category for the parameters. (n=101)

Sr	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Books availability	1	6.93	31.68	47.52	1.98	0.00	11.88	100	M
2	Journals availability	2	25.74	19.80	38.61	0.99	0.00	14.85	100	O
3	Library Staff behavior	3	9.90	29.70	36.63	0.99	0.99	21.78	100	O
4	Reading room availability	4	15.84	28.71	34.65	0.99	0.99	18.81	100	O
5	Computers with fast internet connection	5	13.86	28.71	43.56	0.99	0.00	12.87	100	O
6	Wi-Fi campus	6	32.67	9.90	26.73	0.99	0.99	28.71	100	A
7	Website restrictions	7	5.94	10.89	6.93	33.66	9.90	32.67	100	R
8	Latest software	8	19.80	20.79	35.64	0.99	0.99	21.78	100	O
9	Statistical packages for research	9	29.70	10.89	30.69	2.97	1.98	23.76	100	O
10	Communication development facilities	10	25.74	17.82	31.68	0.00	0.00	24.75	100	O
11	Campus interviews	11	16.83	23.76	49.50	0.00	0.00	9.90	100	O
12	Interview preparations	12	26.73	15.84	40.59	0.00	0.99	15.84	100	O
13	Corporate exposure	13	33.66	15.84	40.59	0.00	0.99	8.91	100	O
14	English communication development programs	14	34.65	13.86	28.71	0.99	0.00	21.78	100	A
15	Aptitude improvement	15	22.77	17.82	35.64	0.99	0.00	22.77	100	O
16	Alumni associations	16	20.79	20.79	23.76	0.00	0.00	34.65	100	I
17	Institute Brand name	17	18.81	12.87	44.55	0.00	0.00	23.76	100	O
18	Management festivals	18	25.74	23.76	39.60	0.00	0.00	10.89	100	O
19	Case studies & live projects	19	26.73	22.77	23.76	0.00	0.99	25.74	100	A
20	Counseling facilities	20	21.78	15.84	30.69	0.99	0.99	29.70	100	O
21	Guest lectures	21	31.68	17.82	20.79	0.99	0.00	28.71	100	A
22	Anti ragging cell	22	16.83	22.77	25.74	0.99	3.96	29.70	100	I
23	Canteen facility	23	16.83	24.75	42.57	0.00	0.00	15.84	100	O
24	Transportation facility	24	15.84	11.88	31.68	0.00	0.00	40.59	100	I
25	Medical first aid facility	25	20.79	22.77	33.66	0.00	0.00	22.77	100	O
26	Fee installment facility	26	12.87	20.79	43.56	0.00	0.99	21.78	100	O
27	Location of institute	27	28.71	10.89	16.83	3.96	2.97	36.63	100	I
28	Hostel facility	28	28.71	17.82	13.86	0.99	0.00	38.61	100	I
29	Well furnished classrooms	29	13.86	28.71	35.64	0.00	0.00	21.78	100	O
30	Well furnished seminar hall	30	18.81	35.64	28.71	0.00	0.00	16.83	100	M
31	Well furnished auditorium	31	16.83	25.74	36.63	0.00	0.00	20.79	100	O
32	Recreational facility	32	25.74	23.76	28.71	0.99	0.00	20.79	100	O

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33	Vehicle parking space	33	19.80	24.75	19.80	2.97	0.99	31.68	100	I
34	Gymnasium facility	34	28.71	12.87	30.69	0.00	0.00	27.72	100	O
35	Qualified staff	35	12.87	35.64	40.59	0.00	0.00	10.89	100	O
36	Syllabus completion in time	36	12.87	36.63	32.67	0.00	0.00	17.82	100	M
37	Seminar presentation	37	15.84	21.78	31.68	3.96	2.97	23.76	100	O
38	GD & co-curricular activities	38	12.87	27.72	42.57	2.97	0.99	12.87	100	O

(Source: Field data)

The Table 4.8.02 shows calculation of Kano attributes in percentage and based on the maximum percentage of responses, categories of attribute for that parameter has been decided. From the table it is observed that many parameters which are having highest responses for the more than one attributes. So these are not been classified into any category and are excluded from considering M>O>A>I rule.

Table 4.8.03

Must be and One-Dimensional Attributes for the Professional Course Graduate Students
Following table depicts the Must be and One-Dimensional attributes. (n=101)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Books availability	1	6.93	31.68	47.52	1.98	0.00	11.88	100	M
2	Well furnished seminar hall	30	18.81	35.64	28.71	0.00	0.00	16.83	100	M
3	Syllabus completion in time	36	12.87	36.63	32.67	0.00	0.00	17.82	100	M
4	Journals availability	2	25.74	19.80	38.61	0.99	0.00	14.85	100	O
5	Library Staff behavior	3	9.90	29.70	36.63	0.99	0.99	21.78	100	O
6	Reading room availability	4	15.84	28.71	34.65	0.99	0.99	18.81	100	O
7	Computers with fast internet connection	5	13.86	28.71	43.56	0.99	0.00	12.87	100	O
8	Latest software	8	19.80	20.79	35.64	0.99	0.99	21.78	100	O
9	Statistical packages for research	9	29.70	10.89	30.69	2.97	1.98	23.76	100	O
10	Communication development facilities	10	25.74	17.82	31.68	0.00	0.00	24.75	100	O
11	Campus interviews	11	16.83	23.76	49.50	0.00	0.00	9.90	100	O
12	Interview preparations	12	26.73	15.84	40.59	0.00	0.99	15.84	100	O
13	Corporate exposure	13	33.66	15.84	40.59	0.00	0.99	8.91	100	O
14	Aptitude improvement	15	22.77	17.82	35.64	0.99	0.00	22.77	100	O
15	Institute Brand name	17	18.81	12.87	44.55	0.00	0.00	23.76	100	O
16	Management festivals	18	25.74	23.76	39.60	0.00	0.00	10.89	100	O
17	Counseling facilities	20	21.78	15.84	30.69	0.99	0.99	29.70	100	O
18	Canteen facility	23	16.83	24.75	42.57	0.00	0.00	15.84	100	O
19	Medical first aid facility	25	20.79	22.77	33.66	0.00	0.00	22.77	100	O
20	Fee installment facility	26	12.87	20.79	43.56	0.00	0.99	21.78	100	O
21	Well furnished classrooms	29	13.86	28.71	35.64	0.00	0.00	21.78	100	O

22	Well furnished auditorium	31	16.83	25.74	36.63	0.00	0.00	20.79	100	O
23	Recreational facility	32	25.74	23.76	28.71	0.99	0.00	20.79	100	O
24	Gymnasium facility	34	28.71	12.87	30.69	0.00	0.00	27.72	100	O
25	Qualified staff	35	12.87	35.64	40.59	0.00	0.00	10.89	100	O
26	Seminar presentation	37	15.84	21.78	31.68	3.96	2.97	23.76	100	O
27	GD & co-curricular activities	38	12.87	27.72	42.57	2.97	0.99	12.87	100	O

(Source: Field data)

M>O>A>I rule

By applying the rule of M>O>A>I, the parameters are grouped together based on their Kano category. So these attributes are arranged sequentially based on the Must be, One dimensional, Attractive and Indifferent attributes.

The Table 4.8.03 shows the Must be and One dimensional attributes. The parameters which are categorized under the Must be parameters are taken for granted by the students. Non fulfillment of these will create dissatisfaction among the students. Books availability, well furnished seminar hall and syllabus completion in time parameters are categorized under Must be attribute.

The parameters which are categorized under One dimensional attributes are 24 out of 38 parameters. In these parameters there is linear relationship between the level of fulfillment and satisfaction level of the students. As the level of fulfillment increases the level of satisfaction also increases

Table 4.8.04
Attractive and Indifferent Attributes for the Professional Course Graduate Students
The following table depicts the Attractive and Indifferent attributes. (n=101)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Wi-Fi campus	6	32.67	9.90	26.73	0.99	0.99	28.71	100	A
2	English communication development programs	14	34.65	13.86	28.71	0.99	0.00	21.78	100	A
3	Case studies & live projects	19	26.73	22.77	23.76	0.00	0.99	25.74	100	A
4	Guest lectures	21	31.68	17.82	20.79	0.99	0.00	28.71	100	A
5	Alumni associations	16	20.79	20.79	23.76	0.00	0.00	34.65	100	I
6	Anti ragging cell	22	16.83	22.77	25.74	0.99	3.96	29.70	100	I
7	Transportation facility	24	15.84	11.88	31.68	0.00	0.00	40.59	100	I
8	Location of institute	27	28.71	10.89	16.83	3.96	2.97	36.63	100	I
9	Hostel facility	28	28.71	17.82	13.86	0.99	0.00	38.61	100	I
10	Vehicle parking space	33	19.80	24.75	19.80	2.97	0.99	31.68	100	I

(Source: Field data)

The Table 4.8.04 shows the Attractive and Indifferent attributes for the professional course graduate students from all the three management institutes.

The Wi-Fi campus, English communication development programs, case studies and live projects and guest lectures are been categorized under the Attractive attributes. And alumni associations, anti ragging cell, transportation facility, location of institute, hostel facility, vehicle parking space are categorized under the Indifferent attributes.

Table 4.8.05
Extent of Satisfaction and Extent of Dissatisfaction for the Professional Course Graduate Students
The following table depicts the values of Extent of satisfaction and Extent of Dissatisfaction for the parameters. (n=101)

Sr.	Parameter Name	Parameter No.	Parameter Category	Extent of Satisfaction	Extent of Dissatisfaction
1	Books availability	1	M	0.56	-0.81
2	Journals availability	2	O	0.65	-0.59
3	Library Staff behavior	3	O	0.47	-0.68
4	Reading room availability	4	O	0.52	-0.65
5	Computers with fast internet connection	5	O	0.58	-0.73
6	Wi-Fi campus	6	A	0.61	-0.37
7	Website restrictions	7	R	0.23	-0.32
8	Latest software	8	O	0.57	-0.58
9	Statistical packages for research	9	O	0.64	-0.44
10	Communication development facilities	10	O	0.57	-0.50
11	Campus interviews	11	O	0.66	-0.73
12	Interview preparations	12	O	0.68	-0.57
13	Corporate exposure	13	O	0.75	-0.57
14	English communication development programs	14	A	0.64	-0.43
15	Aptitude improvement	15	O	0.59	-0.54
16	Alumni associations	16	I	0.45	-0.45
17	Institute Brand name	17	O	0.63	-0.57
18	Management festivals	18	O	0.65	-0.63
19	Case studies & live projects	19	A	0.51	-0.47
20	Counseling facilities	20	O	0.54	-0.47
21	Guest lectures	21	A	0.53	-0.39
22	Anti ragging cell	22	I	0.45	-0.51
23	Canteen facility	23	O	0.59	-0.67
24	Transportation facility	24	I	0.48	-0.44
25	Medical first aid facility	25	O	0.54	-0.56
26	Fee installment facility	26	O	0.57	-0.65
27	Location of institute	27	I	0.49	-0.30
28	Hostel facility	28	I	0.43	-0.32
29	Well furnished classrooms	29	O	0.50	-0.64
30	Well furnished seminar hall	30	M	0.48	-0.64
31	Well furnished auditorium	31	O	0.53	-0.62
32	Recreational facility	32	O	0.55	-0.53
33	Vehicle parking space	33	I	0.41	-0.46
34	Gymnasium facility	34	O	0.59	-0.44
35	Qualified staff	35	O	0.53	-0.76
36	Syllabus completion in time	36	M	0.46	-0.69
37	Seminar presentation	37	O	0.51	-0.57
38	GD & co-curricular activities	38	O	0.58	-0.73

(Source: Field data)

As shown in Table 4.8.05 Extent of Satisfaction and Extent of Dissatisfaction for the parameters. The Extent of Satisfaction when indicates high positive value, student satisfaction will increase tremendously when the parameters or requirements are fulfilled. The low value of Extent of Satisfaction indicates the satisfaction of students will be less increased due to fulfilling the parameters or requirements.

The high value of Extent of Dissatisfaction indicates student satisfaction level will decrease tremendously if these are not provided. The low value of Extent of Dissatisfaction indicates as the level of fulfillment of these parameters decrease there will be less increase in student dissatisfaction.

4.9 Data Analysis of K.B.P.I.M.S.R. Students

Introduction

The data was collected from the 56 respondents from the Karmaveer Bhaurao Patil Institute of Business Education and Research, Varye, Satara.

The collected data was screened, categorized, coded and then fed in Ms-Excel for evaluation and analysis by Kano evaluation table, M>O>A>I rule, Extent of satisfaction and Extent of dissatisfaction.

Table 4.9.01
Kano Attributes frequency for the KBPIMSR Students (n=56)

Sr	Parameter Name	Parameter No.	A	M	O	R	Q	I	Total
1	Books availability	1	5	19	28	0	0	4	56
2	Journals availability	2	15	7	24	0	0	10	56
3	Library Staff behavior	3	9	15	18	0	1	13	56
4	Reading room availability	4	8	19	17	0	0	12	56
5	Computers with fast internet connection	5	9	18	20	0	0	9	56
6	Wi-Fi campus	6	18	2	8	3	0	25	56
7	Website restrictions	7	3	5	3	19	2	24	56
8	Latest software	8	13	17	16	0	0	10	56
9	Statistical packages for research	9	19	7	11	1	1	17	56
10	Communication development facilities	10	19	10	8	1	0	18	56
11	Campus interviews	11	14	15	17	0	0	10	56
12	Interview preparations	12	12	10	16	0	1	17	56
13	Corporate exposure	13	17	7	23	0	2	7	56
14	English communication development programs	14	21	11	16	1	0	7	56
15	Aptitude improvement	15	13	10	23	1	0	9	56
16	Alumni associations	16	17	10	13	0	0	16	56
17	Institute Brand name	17	9	8	27	0	0	12	56
18	Management festivals	18	16	15	15	0	0	10	56
19	Case studies & live projects	19	7	18	14	0	1	16	56
20	Counseling facilities	20	16	14	12	1	0	13	56
21	Guest lectures	21	17	10	9	0	1	19	56
22	Anti ragging cell	22	11	11	7	1	2	24	56
23	Canteen facility	23	11	12	14	1	0	18	56
24	Transportation facility	24	13	6	7	0	0	30	56
25	Medical first aid facility	25	13	13	14	0	0	16	56
26	Fee installment facility	26	13	11	17	0	1	14	56
27	Location of institute	27	20	1	4	7	4	20	56
28	Hostel facility	28	13	5	3	2	0	33	56
29	Well furnished classrooms	29	13	15	16	0	0	12	56
30	Well furnished seminar hall	30	13	19	7	0	0	17	56
31	Well furnished auditorium	31	10	17	13	0	0	16	56
32	Recreational facility	32	11	15	19	0	0	11	56
33	Vehicle parking space	33	7	12	6	2	1	28	56
34	Gymnasium facility	34	20	4	9	0	0	23	56
35	Qualified staff	35	4	24	24	0	0	4	56
36	Syllabus completion in time	36	7	15	20	1	0	13	56
37	Seminar presentation	37	5	14	18	3	2	14	56
38	GD & co-curricular activities	38	9	17	21	2	1	6	56

(Source: Field data)

The Table 4.9.01 gives the frequency of Kano attributes for the parameters. The table shows the attributes which are tabulated as A-Attractive, M-Must be, O-One Dimensional, R-Reverse, Q-Questionable and I-Indifferent.

The Questionable Attributes and Reverse attributes are found less in numbers. The Questionable attributes has not got much significance as it just indicates that the respondent has not understood the question. The reverse attribute indicates that the customers are even willing to pay not to have this feature or parameter in a product or service.

Table 4.9.02
Kano Category for the K.B.P.I.M.S.R. Students (n=56)

Sr	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Books availability	1	8.93	33.93	50.00	0.00	0.00	7.14	100	O
2	Journals availability	2	26.79	12.50	42.86	0.00	0.00	17.86	100	O
3	Library Staff behavior	3	16.07	26.79	32.14	0.00	1.79	23.21	100	O
4	Reading room availability	4	14.29	33.93	30.36	0.00	0.00	21.43	100	M
5	Computers with fast internet connection	5	16.07	32.14	35.71	0.00	0.00	16.07	100	O
6	Wi-Fi campus	6	32.14	3.57	14.29	5.36	0.00	44.64	100	I
7	Website restrictions	7	5.36	8.93	5.36	33.93	3.57	42.86	100	I
8	Latest software	8	23.21	30.36	28.57	0.00	0.00	17.86	100	M
9	Statistical packages for research	9	33.93	12.50	19.64	1.79	1.79	30.36	100	A
10	Communication development facilities	10	33.93	17.86	14.29	1.79	0.00	32.14	100	A
11	Campus interviews	11	25.00	26.79	30.36	0.00	0.00	17.86	100	O
12	Interview preparations	12	21.43	17.86	28.57	0.00	1.79	30.36	100	I
13	Corporate exposure	13	30.36	12.50	41.07	0.00	3.57	12.50	100	O
14	English communication development programs	14	37.50	19.64	28.57	1.79	0.00	12.50	100	A
15	Aptitude improvement	15	23.21	17.86	41.07	1.79	0.00	16.07	100	O
16	Alumni associations	16	30.36	17.86	23.21	0.00	0.00	28.57	100	A
17	Institute Brand name	17	16.07	14.29	48.21	0.00	0.00	21.43	100	O
18	Management festivals	18	28.57	26.79	26.79	0.00	0.00	17.86	100	A
19	Case studies & live projects	19	12.50	32.14	25.00	0.00	1.79	28.57	100	M
20	Counseling facilities	20	28.57	25.00	21.43	1.79	0.00	23.21	100	A
21	Guest lectures	21	30.36	17.86	16.07	0.00	1.79	33.93	100	I
22	Anti ragging cell	22	19.64	19.64	12.50	1.79	3.57	42.86	100	I
23	Canteen facility	23	19.64	21.43	25.00	1.79	0.00	32.14	100	I
24	Transportation facility	24	23.21	10.71	12.50	0.00	0.00	53.57	100	I
25	Medical first aid facility	25	23.21	23.21	25.00	0.00	0.00	28.57	100	I
26	Fee installment facility	26	23.21	19.64	30.36	0.00	1.79	25.00	100	O
27	Location of institute	27	35.71	1.79	7.14	12.50	7.14	35.71	100	A & I
28	Hostel facility	28	23.21	8.93	5.36	3.57	0.00	58.93	100	I
29	Well furnished classrooms	29	23.21	26.79	28.57	0.00	0.00	21.43	100	O
30	Well furnished seminar hall	30	23.21	33.93	12.50	0.00	0.00	30.36	100	M

31	Well furnished auditorium	31	17.86	30.36	23.21	0.00	0.00	28.57	100	M
32	Recreational facility	32	19.64	26.79	33.93	0.00	0.00	19.64	100	O
33	Vehicle parking space	33	12.50	21.43	10.71	3.57	1.79	50.00	100	I
34	Gymnasium facility	34	35.71	7.14	16.07	0.00	0.00	41.07	100	I
35	Qualified staff	35	7.14	42.86	42.86	0.00	0.00	7.14	100	M & O
36	Syllabus completion in time	36	12.50	26.79	35.71	1.79	0.00	23.21	100	O
37	Seminar presentation	37	8.93	25.00	32.14	5.36	3.57	25.00	100	O
38	GD & co-curricular activities	38	16.07	30.36	37.50	3.57	1.79	10.71	100	O

(Source: Field data)

The Table 4.9.02 shows calculation of Kano attributes in percentage and based on the maximum percentage of responses, categories of attribute for that parameter has been decided. From the table it is observed that many parameters which are having highest responses for the more than one attributes. So these are not been classified into any category and are excluded from considering M>O>A>I rule.

Table 4.9.03
Must be and One-Dimensional Attributes for the K.B.P.I.M.S.R. Students
Following table depicts the Must be and One dimensional attributes. (n=56)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Reading room availability	4	14.29	33.93	30.36	0.00	0.00	21.43	100	M
2	Latest software	8	23.21	30.36	28.57	0.00	0.00	17.86	100	M
3	Case studies & live projects	19	12.50	32.14	25.00	0.00	1.79	28.57	100	M
4	Well furnished seminar hall	30	23.21	33.93	12.50	0.00	0.00	30.36	100	M
5	Well furnished auditorium	31	17.86	30.36	23.21	0.00	0.00	28.57	100	M
6	Books availability	1	8.93	33.93	50.00	0.00	0.00	7.14	100	O
7	Journals availability	2	26.79	12.50	42.86	0.00	0.00	17.86	100	O
8	Library Staff behavior	3	16.07	26.79	32.14	0.00	1.79	23.21	100	O
9	Computers with fast internet connection	5	16.07	32.14	35.71	0.00	0.00	16.07	100	O
10	Campus interviews	11	25.00	26.79	30.36	0.00	0.00	17.86	100	O
11	Corporate exposure	13	30.36	12.50	41.07	0.00	3.57	12.50	100	O
12	Aptitude improvement	15	23.21	17.86	41.07	1.79	0.00	16.07	100	O
13	Institute Brand name	17	16.07	14.29	48.21	0.00	0.00	21.43	100	O
14	Fee installment facility	26	23.21	19.64	30.36	0.00	1.79	25.00	100	O
15	Well furnished classrooms	29	23.21	26.79	28.57	0.00	0.00	21.43	100	O
16	Recreational facility	32	19.64	26.79	33.93	0.00	0.00	19.64	100	O
17	Syllabus completion in time	36	12.50	26.79	35.71	1.79	0.00	23.21	100	O
18	Seminar presentation	37	8.93	25.00	32.14	5.36	3.57	25.00	100	O
19	GD & co-curricular activities	38	16.07	30.36	37.50	3.57	1.79	10.71	100	O

(Source: Field data)

M>O>A>I rule

By applying the rule of M>O>A>I, the parameters are grouped together based on their Kano category. So these attributes are arranged sequentially based on the Must be, One dimensional, Attractive and Indifferent attributes.

The Table 4.9.03 shows the Must be and One dimensional attributes. The reading room availability, latest software, case studies and live projects well furnished seminar hall and

well furnished auditorium are the parameters which are categorized under Must be attributes. And also 14 parameters out of 38 are categorized under the One dimensional parameters. So as the level of fulfillment of these parameters increases the level of satisfaction also increases and vice versa.

Table 4.9.04
Attractive and Indifferent Attributes for the K.B.P.I.M.S.R. Students
The following table depicts the Attractive and Indifferent attributes. (n=56)

Sr	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Statistical packages for research	9	33.93	12.50	19.64	1.79	1.79	30.36	100	A
2	Communication development facilities	10	33.93	17.86	14.29	1.79	0.00	32.14	100	A
3	English communication development programs	14	37.50	19.64	28.57	1.79	0.00	12.50	100	A
4	Alumni associations	16	30.36	17.86	23.21	0.00	0.00	28.57	100	A
5	Management festivals	18	28.57	26.79	26.79	0.00	0.00	17.86	100	A
6	Counseling facilities	20	28.57	25.00	21.43	1.79	0.00	23.21	100	A
7	Wi-Fi campus	6	32.14	3.57	14.29	5.36	0.00	44.64	100	I
8	Website restrictions	7	5.36	8.93	5.36	33.93	3.57	42.86	100	I
9	Interview preparations	12	21.43	17.86	28.57	0.00	1.79	30.36	100	I
10	Guest lectures	21	30.36	17.86	16.07	0.00	1.79	33.93	100	I
11	Anti ragging cell	22	19.64	19.64	12.50	1.79	3.57	42.86	100	I
12	Canteen facility	23	19.64	21.43	25.00	1.79	0.00	32.14	100	I
13	Transportation facility	24	23.21	10.71	12.50	0.00	0.00	53.57	100	I
14	Medical first aid facility	25	23.21	23.21	25.00	0.00	0.00	28.57	100	I
15	Hostel facility	28	23.21	8.93	5.36	3.57	0.00	58.93	100	I
16	Vehicle parking space	33	12.50	21.43	10.71	3.57	1.79	50.00	100	I
17	Gymnasium facility	34	35.71	7.14	16.07	0.00	0.00	41.07	100	I

(Source: Field data)

The Table 4.9.04 shows the Attractive attributes and Indifferent attributes. The Statistical packages for research, communication development facilities, English communication development programs, alumni associations, management festivals and counseling facilities are been categorized under attractive attributes.

Wi-Fi campus, website restrictions, interview preparations, guest lecture, anti ragging cell, canteen facility, transportation facility, medical first aid facility, hostel facility, vehicle parking space, gymnasium facility are categorized under Indifferent attributes.

Table 4.9.05
Extent of Satisfaction and Extent of Dissatisfaction for the K.B.P.I.M.S.R. Students
The following table depicts the values of Extent of satisfaction and Extent of Dissatisfaction for the parameters. (n=56)

Sr.	Parameter Name	Parameter No.	Parameter Category	Extent of Satisfaction	Extent of Dissatisfaction
1	Books availability	1	O	0.59	-0.84
2	Journals availability	2	O	0.70	-0.55
3	Library Staff behavior	3	O	0.49	-0.60
4	Reading room availability	4	M	0.45	-0.64
5	Computers with fast internet connection	5	O	0.52	-0.68
6	Wi-Fi campus	6	I	0.49	-0.19
7	Website restrictions	7	I	0.17	-0.23
8	Latest software	8	M	0.52	-0.59
9	Statistical packages for research	9	A	0.56	-0.33
10	Communication development facilities	10	A	0.49	-0.33
11	Campus interviews	11	O	0.55	-0.57
12	Interview preparations	12	I	0.51	-0.47
13	Corporate exposure	13	O	0.74	-0.56
14	English communication development programs	14	A	0.67	-0.49
15	Aptitude improvement	15	O	0.65	-0.60
16	Alumni associations	16	A	0.54	-0.41
17	Institute Brand name	17	O	0.64	-0.63
18	Management festivals	18	A	0.55	-0.54
19	Case studies & live projects	19	M	0.38	-0.58
20	Counseling facilities	20	A	0.51	-0.47
21	Guest lectures	21	I	0.47	-0.35
22	Anti ragging cell	22	I	0.34	-0.34
23	Canteen facility	23	I	0.45	-0.47
24	Transportation facility	24	I	0.36	-0.23
25	Medical first aid facility	25	I	0.48	-0.48
26	Fee installment facility	26	O	0.55	-0.51
27	Location of institute	27	A & I	0.53	-0.11
28	Hostel facility	28	I	0.30	-0.15
29	Well furnished classrooms	29	O	0.52	-0.55
30	Well furnished seminar hall	30	M	0.36	-0.46
31	Well furnished auditorium	31	M	0.41	-0.54
32	Recreational facility	32	O	0.54	-0.61
33	Vehicle parking space	33	I	0.25	-0.34
34	Gymnasium facility	34	I	0.52	-0.23
35	Qualified staff	35	M & O	0.50	-0.86
36	Syllabus completion in time	36	O	0.49	-0.64
37	Seminar presentation	37	O	0.45	-0.63
38	GD & co-curricular activities	38	O	0.57	-0.72

(Source: Field data)

As shown in Table 4.9.05 Extent of Satisfaction and Extent of Dissatisfaction for the parameters. The Extent of Satisfaction when indicates high positive value, student satisfaction will increase tremendously when the parameters or requirements are fulfilled. The low value of Extent of Satisfaction indicates the satisfaction of students will be less increased due to fulfilling the parameters or requirements.

Corporate exposure, journals availability, English communication development programs, aptitude improvement and institute brand name are the parameters which are having the highest positive value for of the Extent of Satisfaction. So as the level of fulfillment of these parameters increases, the level of satisfaction rises tremendously.

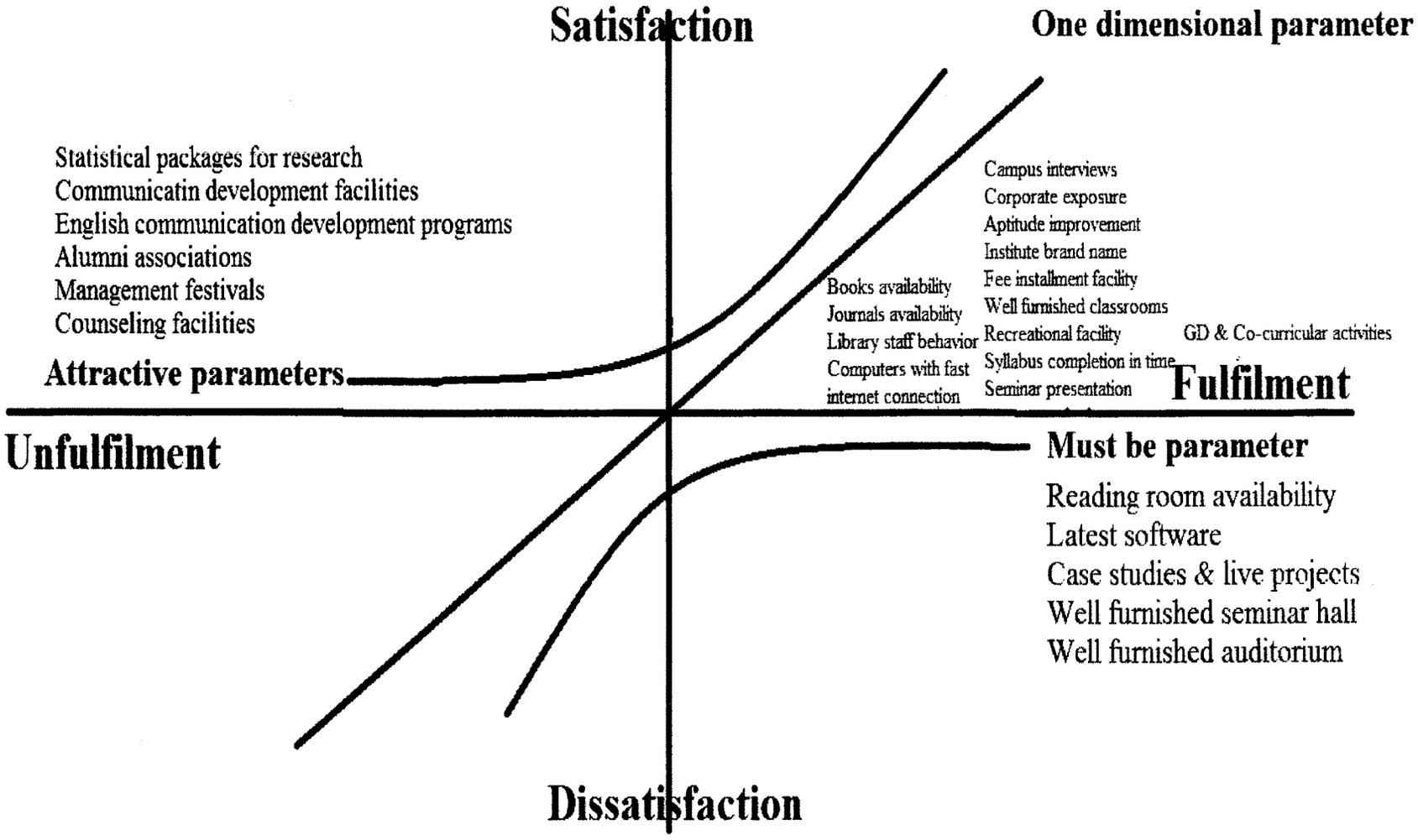
Website restrictions, vehicle parking space, hostel facility, anti ragging cell, transportation facility, well furnished seminar hall, case studies and live projects are having low positive value of Extent of Satisfaction. So as the level of fulfillment of these increases there is low rise in level of satisfaction.

The high value of Extent of Dissatisfaction indicates student satisfaction level will decrease tremendously if these are not provided. The low value of Extent of Dissatisfaction indicates as the level of fulfillment of these parameters decrease there will be less increase in student dissatisfaction.

Qualified staff, books availability, GD and Co-curricular activities, computers with fast internet connection are the parameters which are having high values for the Extent of Dissatisfaction. So as the level of fulfillment of these parameters decreases there is tremendous rise in level of dissatisfaction among the students.

Location of the institute, hostel facility and Wi-Fi campus are the parameters which are having low values of the Extent of Dissatisfaction. So even if there is low level of fulfillment of these parameters, there will be low rise in level of dissatisfaction.

Figure 4.4
Kano Model for the K.B.P.I.M.S.R.



4.10 Data Analysis of V.P.I.M.S.R. Students

Introduction

The data was collected from the 58 respondents from the Vasantraodada Patil Institute of Management Studies and Research, Sangli.

The collected data was screened, categorized, coded and then fed in Ms-Excel for evaluation and analysis by Kano evaluation table, M>O>A>I rule, Extent of satisfaction and Extent of dissatisfaction.

Table 4.10.01
Kano Attributes Frequency for the V.P.I.M.S.R. Students (n=58)

Sr.	Parameter Name	Parameter No.	A	M	O	R	Q	I	Total
1	Books availability	1	8	14	26	1	0	9	58
2	Journals availability	2	10	15	21	1	0	11	58
3	Library Staff behavior	3	8	16	19	0	0	15	58
4	Reading room availability	4	11	13	19	2	0	13	58
5	Computers with fast internet connection	5	8	21	21	3	0	5	58
6	Wi-Fi campus	6	17	10	18	1	0	12	58
7	Website restrictions	7	4	8	4	21	7	14	58
8	Latest software	8	14	12	21	2	0	9	58
9	Statistical packages for research	9	11	11	16	1	0	19	58
10	Communication development facilities	10	9	10	17	0	0	22	58
11	Campus interviews	11	10	9	33	0	0	6	58
12	Interview preparations	12	16	11	20	0	0	11	58
13	Corporate exposure	13	18	11	19	0	0	10	58
14	English communication development programs	14	18	11	11	0	0	18	58
15	Aptitude improvement	15	11	16	16	0	0	15	58
16	Alumni associations	16	9	17	12	0	0	20	58
17	Institute Brand name	17	15	8	27	0	0	8	58
18	Management festivals	18	12	10	29	0	0	7	58
19	Case studies & live projects	19	14	12	20	0	0	12	58
20	Counseling facilities	20	12	10	18	2	1	15	58
21	Guest lectures	21	19	10	10	1	1	17	58
22	Anti ragging cell	22	10	17	18	1	2	10	58
23	Canteen facility	23	10	13	30	0	0	5	58
24	Transportation facility	24	14	9	13	0	0	22	58
25	Medical first aid facility	25	18	13	14	0	0	13	58
26	Fee installment facility	26	3	21	25	0	0	9	58
27	Location of institute	27	11	14	11	2	0	20	58
28	Hostel facility	28	19	10	7	0	0	22	58
29	Well furnished classrooms	29	8	16	17	0	0	17	58
30	Well furnished seminar hall	30	12	24	11	0	0	11	58
31	Well furnished auditorium	31	10	12	24	0	0	12	58
32	Recreational facility	32	15	15	14	0	0	14	58
33	Vehicle parking space	33	12	19	11	0	0	16	58
34	Gymnasium facility	34	10	12	15	0	0	21	58
35	Qualified staff	35	4	21	25	0	0	8	58
36	Syllabus completion in time	36	1	23	19	0	0	15	58
37	Seminar presentation	37	10	14	14	1	0	19	58
38	GD & co-curricular activities	38	8	18	17	2	0	13	58

(Source: Field data)

The table 4.10.01 gives the frequency of Kano attributes for the parameters. The table shows the attributes which are tabulated as A-Attractive, M-Must be, O-One Dimensional, R-Reverse, Q-Questionable and I-Indifferent.

The Questionable Attributes and Reverse attributes are found less in numbers. The Questionable attributes has not got much significance as it just indicates that the respondent has not understood the question. The reverse attribute indicates that the customers are even willing to pay not to have this feature or parameter in a product or service. In the table the website restriction parameter comes up with 21 frequency. So 21 out of 58 students of the Vasantraodada Patil Institute of Management Studies and Research, Sangli feel that the website restriction parameter should be reversed and there should not be any restriction on browsing any website.

Table 4.10.02
Kano Category for the V.P.I.M.S.R. Students (n=58)

Sr	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Books availability	1	13.79	24.14	44.83	1.72	0.00	15.52	100	O
2	Journals availability	2	17.24	25.86	36.21	1.72	0.00	18.97	100	O
3	Library Staff behavior	3	13.79	27.59	32.76	0.00	0.00	25.86	100	O
4	Reading room availability	4	18.97	22.41	32.76	3.45	0.00	22.41	100	O
5	Computers with fast internet connection	5	13.79	36.21	36.21	5.17	0.00	8.62	100	O
6	Wi-Fi campus	6	29.31	17.24	31.03	1.72	0.00	20.69	100	O
7	Website restrictions	7	6.90	13.79	6.90	36.21	12.07	24.14	100	R
8	Latest software	8	24.14	20.69	36.21	3.45	0.00	15.52	100	O
9	Statistical packages for research	9	18.97	18.97	27.59	1.72	0.00	32.76	100	I
10	Communication development facilities	10	15.52	17.24	29.31	0.00	0.00	37.93	100	I
11	Campus interviews	11	17.24	15.52	56.90	0.00	0.00	10.34	100	O
12	Interview preparations	12	27.59	18.97	34.48	0.00	0.00	18.97	100	O
13	Corporate exposure	13	31.03	18.97	32.76	0.00	0.00	17.24	100	A
14	English communication development programs	14	31.03	18.97	18.97	0.00	0.00	31.03	100	A &I
15	Aptitude improvement	15	18.97	27.59	27.59	0.00	0.00	25.86	100	M & O
16	Alumni associations	16	15.52	29.31	20.69	0.00	0.00	34.48	100	I
17	Institute Brand name	17	25.86	13.79	46.55	0.00	0.00	13.79	100	O
18	Management festivals	18	20.69	17.24	50.00	0.00	0.00	12.07	100	O
19	Case studies & live projects	19	24.14	20.69	34.48	0.00	0.00	20.69	100	O
20	Counseling facilities	20	20.69	17.24	31.03	3.45	1.72	25.86	100	O
21	Guest lectures	21	32.76	17.24	17.24	1.72	1.72	29.31	100	A
22	Anti ragging cell	22	17.24	29.31	31.03	1.72	3.45	17.24	100	O
23	Canteen facility	23	17.24	22.41	51.72	0.00	0.00	8.62	100	O
24	Transportation facility	24	24.14	15.52	22.41	0.00	0.00	37.93	100	I
25	Medical first aid facility	25	31.03	22.41	24.14	0.00	0.00	22.41	100	A
26	Fee installment facility	26	5.17	36.21	43.10	0.00	0.00	15.52	100	M
27	Location of institute	27	18.97	24.14	18.97	3.45	0.00	34.48	100	I
28	Hostel facility	28	32.76	17.24	12.07	0.00	0.00	37.93	100	I
29	Well furnished classrooms	29	13.79	27.59	29.31	0.00	0.00	29.31	100	O &I
30	Well furnished seminar hall	30	20.69	41.38	18.97	0.00	0.00	18.97	100	M
31	Well furnished auditorium	31	17.24	20.69	41.38	0.00	0.00	20.69	100	O
32	Recreational facility	32	25.86	25.86	24.14	0.00	0.00	24.14	100	A & M

33	Vehicle parking space	33	20.69	32.76	18.97	0.00	0.00	27.59	100	M
34	Gymnasium facility	34	17.24	20.69	25.86	0.00	0.00	36.21	100	I
35	Qualified staff	35	6.90	36.21	43.10	0.00	0.00	13.79	100	O
36	Syllabus completion in time	36	1.72	39.66	32.76	0.00	0.00	25.86	100	M
37	Seminar presentation	37	17.24	24.14	24.14	1.72	0.00	32.76	100	I
38	GD & co-curricular activities	38	13.79	31.03	29.31	3.45	0.00	22.41	100	M

(Source: Field data)

The Table 4.10.02 shows calculation of Kano attributes in percentage and based on the maximum percentage of responses, categories of attribute for that parameter has been decided. From the table it is observed that some parameters which are having highest responses for the more than one attributes. So these are not been classified into any category and are excluded from considering M>O>A>I rule.

Table 4.10.03
Must be and One dimensional Attributes for the V.P.I.M.S.R. Students
Following table depicts the Must be and One dimensional attributes. (n=58)

Sr	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Fee installment facility	26	5.17	36.21	43.10	0.00	0.00	15.52	100	M
2	Well furnished seminar hall	30	20.69	41.38	18.97	0.00	0.00	18.97	100	M
3	Vehicle parking space	33	20.69	32.76	18.97	0.00	0.00	27.59	100	M
4	Syllabus completion in time	36	1.72	39.66	32.76	0.00	0.00	25.86	100	M
5	GD & co-curricular activities	38	13.79	31.03	29.31	3.45	0.00	22.41	100	M
6	Books availability	1	13.79	24.14	44.83	1.72	0.00	15.52	100	O
7	Journals availability	2	17.24	25.86	36.21	1.72	0.00	18.97	100	O
8	Library Staff behavior	3	13.79	27.59	32.76	0.00	0.00	25.86	100	O
9	Reading room availability	4	18.97	22.41	32.76	3.45	0.00	22.41	100	O
10	Computers with fast internet connection	5	13.79	36.21	36.21	5.17	0.00	8.62	100	O
11	Wi-Fi campus	6	29.31	17.24	31.03	1.72	0.00	20.69	100	O
12	Latest software	8	24.14	20.69	36.21	3.45	0.00	15.52	100	O
13	Campus interviews	11	17.24	15.52	56.90	0.00	0.00	10.34	100	O
14	Interview preparations	12	27.59	18.97	34.48	0.00	0.00	18.97	100	O
15	Institute Brand name	17	25.86	13.79	46.55	0.00	0.00	13.79	100	O
16	Management festivals	18	20.69	17.24	50.00	0.00	0.00	12.07	100	O
17	Case studies & live projects	19	24.14	20.69	34.48	0.00	0.00	20.69	100	O
18	Counseling facilities	20	20.69	17.24	31.03	3.45	1.72	25.86	100	O
19	Anti ragging cell	22	17.24	29.31	31.03	1.72	3.45	17.24	100	O
20	Canteen facility	23	17.24	22.41	51.72	0.00	0.00	8.62	100	O
21	Well furnished auditorium	31	17.24	20.69	41.38	0.00	0.00	20.69	100	O
22	Qualified staff	35	6.90	36.21	43.10	0.00	0.00	13.79	100	O

(Source: Field data)

By applying the rule of M>O>A>I, the parameters are grouped together based on their Kano category. So these attributes are arranged sequentially based on the Must be, One dimensional, Attractive and Indifferent attributes.

The Table 4.10.03 shows the Must be and One dimensional attributes. The fee installment facility, well furnished seminar hall, vehicle parking space, syllabus completion in time, GD & co-curricular activities are must be parameters. And One dimensional parameters are as shown tabulated, in which there is linear relationship

between level of fulfillment and level of satisfaction. So as their level of fulfillment increases there is also rise in level of satisfaction and vice versa.

Table 4.10.04
Attractive and Indifferent Attributes for the V.P.I.M.S.R. Students
The following table depicts the Attractive and Indifferent attributes. (n=58)

Sr	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Corporate exposure	13	31.03	18.97	32.76	0.00	0.00	17.24	100	A
2	Guest lectures	21	32.76	17.24	17.24	1.72	1.72	29.31	100	A
3	Medical first aid facility	25	31.03	22.41	24.14	0.00	0.00	22.41	100	A
4	Statistical packages for research	9	18.97	18.97	27.59	1.72	0.00	32.76	100	I
5	Communication development facilities	10	15.52	17.24	29.31	0.00	0.00	37.93	100	I
6	Alumni associations	16	15.52	29.31	20.69	0.00	0.00	34.48	100	I
7	Transportation facility	24	24.14	15.52	22.41	0.00	0.00	37.93	100	I
8	Location of institute	27	18.97	24.14	18.97	3.45	0.00	34.48	100	I
9	Hostel facility	28	32.76	17.24	12.07	0.00	0.00	37.93	100	I
10	Gymnasium facility	34	17.24	20.69	25.86	0.00	0.00	36.21	100	I
11	Seminar presentation	37	17.24	24.14	24.14	1.72	0.00	32.76	100	I

(Source: Field data)

The table 4.10.04 shows the Attractive and Indifferent attributes. The corporate exposure, guest lectures, medical first aid facility are categorized under the Attractive attributes. So if these are provided then students of the Vasantraodada Patil Institute of Management Studies and Research, Sangli are going to be tremendously satisfied.

Statistical packages for research, communication development facilities, alumni associations, transportation facility, location of institute, hostel facility, gymnasium facility and seminar presentation are Indifferent attributes.

Table 4.10.05
Extent of Satisfaction and Extent of Dissatisfaction for the V.P.I.M.S.R. Students
The following table depicts the values of Extent of satisfaction and Extent of Dissatisfaction for the parameters. (n=58)

Sr	Parameter Name	Parameter No.	Parameter Category	Extent of Satisfaction	Extent of Dissatisfaction
1	Books availability	1	O	0.60	-0.70
2	Journals availability	2	O	0.54	-0.63
3	Library Staff behavior	3	O	0.47	-0.60
4	Reading room availability	4	O	0.54	-0.57
5	Computers with fast internet connection	5	O	0.53	-0.76
6	Wi-Fi campus	6	O	0.61	-0.49
7	Website restrictions	7	R	0.27	-0.40
8	Latest software	8	O	0.63	-0.59
9	Statistical packages for research	9	I	0.47	-0.47
10	Communication development facilities	10	I	0.45	-0.47
11	Campus interviews	11	O	0.74	-0.72
12	Interview preparations	12	O	0.62	-0.53
13	Corporate exposure	13	A	0.64	-0.52
14	English communication development programs	14	A & I	0.50	-0.38
15	Aptitude improvement	15	M & O	0.47	-0.55
16	Alumni associations	16	I	0.36	-0.50
17	Institute Brand name	17	O	0.72	-0.60
18	Management festivals	18	O	0.71	-0.67
19	Case studies & live projects	19	O	0.59	-0.55
20	Counseling facilities	20	O	0.55	-0.51
21	Guest lectures	21	A	0.52	-0.36
22	Anti ragging cell	22	O	0.51	-0.64
23	Canteen facility	23	O	0.69	-0.74
24	Transportation facility	24	I	0.47	-0.38
25	Medical first aid facility	25	A	0.55	-0.47
26	Fee installment facility	26	M	0.48	-0.79
27	Location of institute	27	I	0.39	-0.45
28	Hostel facility	28	I	0.45	-0.29
29	Well furnished classrooms	29	O & I	0.43	-0.57
30	Well furnished seminar hall	30	M	0.40	-0.60
31	Well furnished auditorium	31	O	0.59	-0.62
32	Recreational facility	32	A & M	0.50	-0.50
33	Vehicle parking space	33	M	0.40	-0.52
34	Gymnasium facility	34	I	0.43	-0.47
35	Qualified staff	35	O	0.50	-0.79
36	Syllabus completion in time	36	M	0.34	-0.72
37	Seminar presentation	37	I	0.42	-0.49
38	GD & co-curricular activities	38	M	0.45	-0.63

(Source: Field data)

As shown in Table 4.10.05 Extent of Satisfaction and Extent of Dissatisfaction for the parameters. The Extent of Satisfaction when indicates high positive value, student satisfaction will increase tremendously when the parameters or requirements are fulfilled. The low value of Extent of Satisfaction indicates the satisfaction of students will be less increased due to fulfilling the parameters or requirements.

Campus interview, Institute brand name, management festivals, canteen facility and corporate exposure are the parameters which are having high positive value for the Extent of Satisfaction. As the level of fulfillment of these increases then satisfaction among the students also rises tremendously.

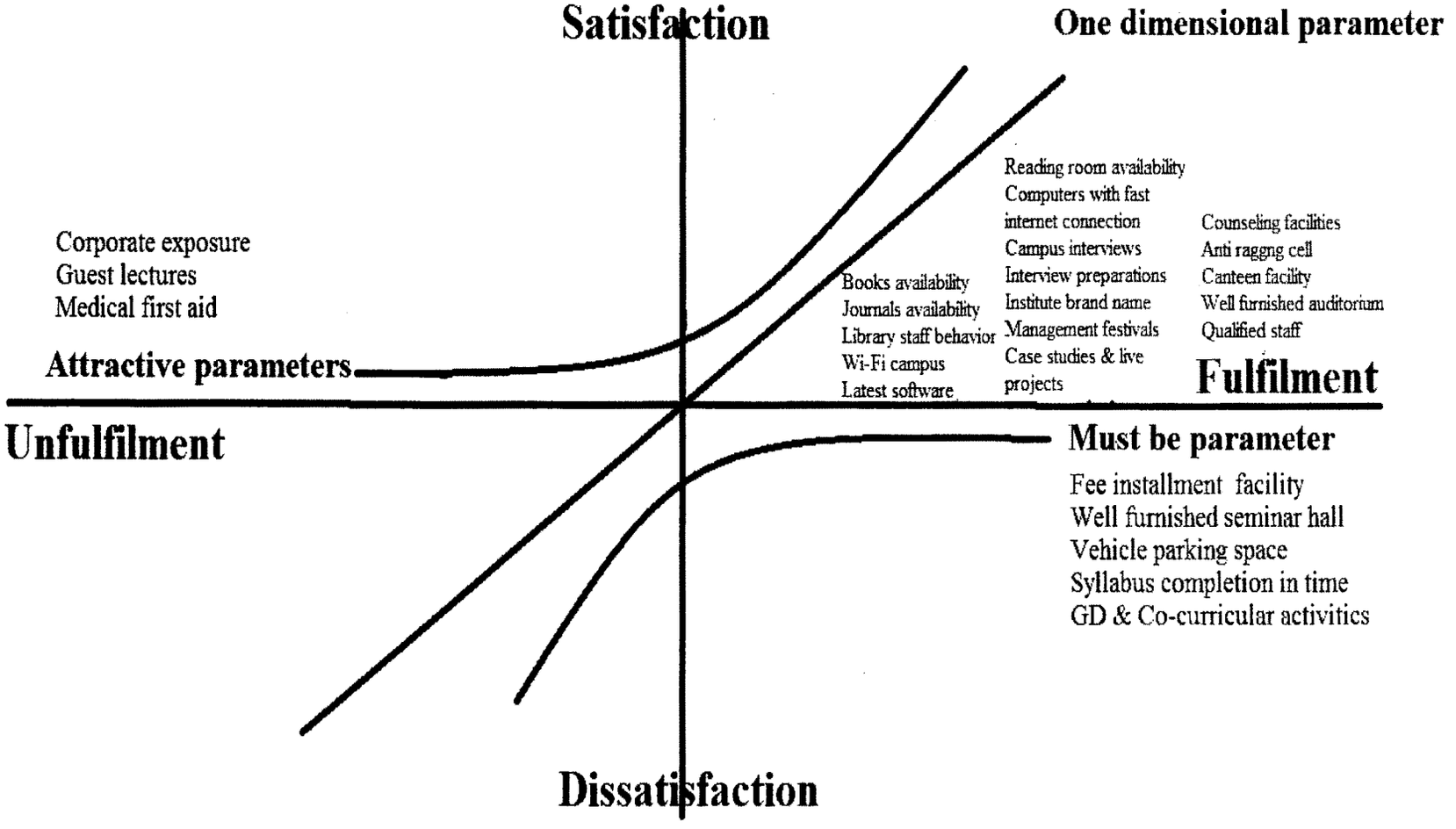
The alumni associations, location of institute and syllabus completion in time are having low positive value of the Extent of satisfaction. So there is less increase in satisfaction level of the students due to fulfillment of these parameters.

The high value of Extent of Dissatisfaction indicates student satisfaction level will decrease tremendously if these are not provided. The low value of Extent of Dissatisfaction indicates as the level of fulfillment of these parameters decrease there will be less increase in student dissatisfaction.

The fee installment facility, qualified staff, computers with fast internet connection, canteen facility, books availability, syllabus completion in time are the parameters which are having high values for the Extent of Dissatisfaction. So these parameters can create tremendous dissatisfaction among the students due to low level of fulfillment.

Hostel facility, guest lecture, transportation facility, English communication development programs are having low values for the Extent of Dissatisfaction. So as the level of fulfillment of these parameters decreases there is less increase in student dissatisfaction.

Figure 4.5
Kano Model for the V.P.I.M.S.R.



4.11 Data Analysis of D.R.K.C.C. Students

Introduction

The data was collected from the 58 respondents from the Deshbhakta Ratnappa Kumbhar College of Commerce, Kolhapur.

The collected data was screened, categorized, coded and then fed in Ms-Excel for evaluation and analysis by Kano evaluation table, M>O>A>I rule, Extent of satisfaction and Extent of dissatisfaction.

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The collected data was screened, categorized, coded and then fed in Ms-Excel for evaluation and analysis by Kano evaluation table, M>O>A>I rule, Extent of satisfaction and Extent of dissatisfaction.

Table 4.11.01
Kano Attributes Frequency for the D.R.K.C.C. Students (n=58)

Sr.	Parameter Name	Parameter No.	A	M	O	R	Q	I	Total
1	Books availability	1	0	16	35	1	0	6	58
2	Journals availability	2	15	14	20	0	0	9	58
3	Library Staff behavior	3	5	20	22	1	1	9	58
4	Reading room availability	4	14	17	20	0	1	6	58
5	Computers with fast internet connection	5	7	18	23	0	0	10	58
6	Wi-Fi campus	6	19	7	17	0	1	14	58
7	Website restrictions	7	3	10	7	15	5	18	58
8	Latest software	8	9	15	17	0	1	16	58
9	Statistical packages for research	9	14	14	19	1	1	9	58
10	Communication development facilities	10	13	10	26	0	0	9	58
11	Campus interviews	11	6	17	28	0	1	6	58
12	Interview preparations	12	11	18	22	0	0	7	58
13	Corporate exposure	13	12	18	21	0	0	7	58
14	English communication development programs	14	17	7	25	0	0	9	58
15	Aptitude improvement	15	15	9	21	0	0	13	58
16	Alumni associations	16	7	12	15	0	1	23	58
17	Institute Brand name	17	11	7	23	0	1	16	58
18	Management festivals	18	18	7	24	0	1	8	58
19	Case studies & live projects	19	16	11	22	0	0	9	58
20	Counseling facilities	20	11	15	15	0	0	17	58
21	Guest lectures	21	12	11	20	0	1	14	58
22	Anti ragging cell	22	3	17	18	1	1	18	58
23	Canteen facility	23	15	14	18	0	0	11	58
24	Transportation facility	24	11	8	20	1	0	18	58
25	Medical first aid facility	25	9	13	20	0	1	15	58
26	Fee installment facility	26	11	10	26	0	0	11	58
27	Location of institute	27	10	10	14	2	3	19	58
28	Hostel facility	28	14	13	17	0	0	14	58
29	Well furnished classrooms	29	10	13	29	0	0	6	58
30	Well furnished seminar hall	30	6	15	28	0	0	9	58
31	Well furnished auditorium	31	10	14	20	0	0	14	58
32	Recreational facility	32	9	12	26	1	0	10	58
33	Vehicle parking space	33	11	15	15	1	0	16	58
34	Gymnasium facility	34	11	12	24	0	0	11	58
35	Qualified staff	35	13	17	21	0	0	7	58
36	Syllabus completion in time	36	10	16	23	0	0	9	58
37	Seminar presentation	37	15	14	17	1	2	9	58
38	GD & co-curricular activities	38	6	17	30	1	0	4	58

(Source: Field data)

The table 4.11.01 gives the frequency of Kano attributes for the parameters. The table shows the attributes which are tabulated as A-Attractive, M-Must be, O-One Dimensional, R-Reverse, Q-Questionable and I-Indifferent.

The Questionable Attributes and Reverse attributes are found less in numbers. The Questionable attributes has not got much significance as it just indicates that the respondent has not understood the question. The reverse attribute indicates that the customers are even willing to pay not to have this feature or parameter in a product or service.

Table 4.11.02
Kano Category for the D.R.K.C.C. Students (n=58)

Sr	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Books availability	1	0.00	27.59	60.34	1.72	0.00	10.34	100	O
2	Journals availability	2	25.86	24.14	34.48	0.00	0.00	15.52	100	O
3	Library Staff behavior	3	8.62	34.48	37.93	1.72	1.72	15.52	100	O
4	Reading room availability	4	24.14	29.31	34.48	0.00	1.72	10.34	100	O
5	Computers with fast internet connection	5	12.07	31.03	39.66	0.00	0.00	17.24	100	O
6	Wi-Fi campus	6	32.76	12.07	29.31	0.00	1.72	24.14	100	A
7	Website restrictions	7	5.17	17.24	12.07	25.86	8.62	31.03	100	I
8	Latest software	8	15.52	25.86	29.31	0.00	1.72	27.59	100	O
9	Statistical packages for research	9	24.14	24.14	32.76	1.72	1.72	15.52	100	O
10	Communication development facilities	10	22.41	17.24	44.83	0.00	0.00	15.52	100	O
11	Campus interviews	11	10.34	29.31	48.28	0.00	1.72	10.34	100	O
12	Interview preparations	12	18.97	31.03	37.93	0.00	0.00	12.07	100	O
13	Corporate exposure	13	20.69	31.03	36.21	0.00	0.00	12.07	100	O
14	English communication development programs	14	29.31	12.07	43.10	0.00	0.00	15.52	100	O
15	Aptitude improvement	15	25.86	15.52	36.21	0.00	0.00	22.41	100	O
16	Alumni associations	16	12.07	20.69	25.86	0.00	1.72	39.66	100	I
17	Institute Brand name	17	18.97	12.07	39.66	0.00	1.72	27.59	100	O
18	Management festivals	18	31.03	12.07	41.38	0.00	1.72	13.79	100	O
19	Case studies & live projects	19	27.59	18.97	37.93	0.00	0.00	15.52	100	O
20	Counseling facilities	20	18.97	25.86	25.86	0.00	0.00	29.31	100	I
21	Guest lectures	21	20.69	18.97	34.48	0.00	1.72	24.14	100	O
22	Anti ragging cell	22	5.17	29.31	31.03	1.72	1.72	31.03	100	O &I
23	Canteen facility	23	25.86	24.14	31.03	0.00	0.00	18.97	100	O
24	Transportation facility	24	18.97	13.79	34.48	1.72	0.00	31.03	100	O
25	Medical first aid facility	25	15.52	22.41	34.48	0.00	1.72	25.86	100	O
26	Fee installment facility	26	18.97	17.24	44.83	0.00	0.00	18.97	100	O
27	Location of institute	27	17.24	17.24	24.14	3.45	5.17	32.76	100	I
28	Hostel facility	28	24.14	22.41	29.31	0.00	0.00	24.14	100	O
29	Well furnished classrooms	29	17.24	22.41	50.00	0.00	0.00	10.34	100	O
30	Well furnished seminar hall	30	10.34	25.86	48.28	0.00	0.00	15.52	100	O
31	Well furnished auditorium	31	17.24	24.14	34.48	0.00	0.00	24.14	100	O

32	Recreational facility	32	15.52	20.69	44.83	1.72	0.00	17.24	100	O
33	Vehicle parking space	33	18.97	25.86	25.86	1.72	0.00	27.59	100	I
34	Gymnasium facility	34	18.97	20.69	41.38	0.00	0.00	18.97	100	O
35	Qualified staff	35	22.41	29.31	36.21	0.00	0.00	12.07	100	O
36	Syllabus completion in time	36	17.24	27.59	39.66	0.00	0.00	15.52	100	O
37	Seminar presentation	37	25.86	24.14	29.31	1.72	3.45	15.52	100	O
38	GD & co-curricular activities	38	10.34	29.31	51.72	1.72	0.00	6.90	100	O

(Source: Field data)

The Table 4.11.02 shows calculation of Kano attributes in percentage and based on the maximum percentage of responses, categories of attribute for that parameter has been decided. From the table it is observed that many parameters which are having highest responses for the more than one attributes. So these are not been classified into any category and are excluded from considering M>O>A>I rule.

Table 4.11.03
Must be and One dimensional Attributes for the D.R.K.C.C. Students
Following table depicts Must be and One dimensional attributes for parameters. (n=58)

Sr	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Books availability	1	0.00	27.59	60.34	1.72	0.00	10.34	100	O
2	Journals availability	2	25.86	24.14	34.48	0.00	0.00	15.52	100	O
3	Library Staff behavior	3	8.62	34.48	37.93	1.72	1.72	15.52	100	O
4	Reading room availability	4	24.14	29.31	34.48	0.00	1.72	10.34	100	O
5	Computers with fast internet connection	5	12.07	31.03	39.66	0.00	0.00	17.24	100	O
6	Latest software	8	15.52	25.86	29.31	0.00	1.72	27.59	100	O
7	Statistical packages for research	9	24.14	24.14	32.76	1.72	1.72	15.52	100	O
8	Communication development facilities	10	22.41	17.24	44.83	0.00	0.00	15.52	100	O
9	Campus interviews	11	10.34	29.31	48.28	0.00	1.72	10.34	100	O
10	Interview preparations	12	18.97	31.03	37.93	0.00	0.00	12.07	100	O
11	Corporate exposure	13	20.69	31.03	36.21	0.00	0.00	12.07	100	O
12	English communication development programs	14	29.31	12.07	43.10	0.00	0.00	15.52	100	O
13	Aptitude improvement	15	25.86	15.52	36.21	0.00	0.00	22.41	100	O
14	Institute Brand name	17	18.97	12.07	39.66	0.00	1.72	27.59	100	O
15	Management festivals	18	31.03	12.07	41.38	0.00	1.72	13.79	100	O
16	Case studies & live projects	19	27.59	18.97	37.93	0.00	0.00	15.52	100	O
17	Guest lectures	21	20.69	18.97	34.48	0.00	1.72	24.14	100	O
18	Canteen facility	23	25.86	24.14	31.03	0.00	0.00	18.97	100	O
19	Transportation facility	24	18.97	13.79	34.48	1.72	0.00	31.03	100	O
20	Medical first aid facility	25	15.52	22.41	34.48	0.00	1.72	25.86	100	O
21	Fee installment facility	26	18.97	17.24	44.83	0.00	0.00	18.97	100	O
22	Hostel facility	28	24.14	22.41	29.31	0.00	0.00	24.14	100	O
23	Well furnished classrooms	29	17.24	22.41	50.00	0.00	0.00	10.34	100	O
24	Well furnished seminar hall	30	10.34	25.86	48.28	0.00	0.00	15.52	100	O
25	Well furnished auditorium	31	17.24	24.14	34.48	0.00	0.00	24.14	100	O
26	Recreational facility	32	15.52	20.69	44.83	1.72	0.00	17.24	100	O
27	Gymnasium facility	34	18.97	20.69	41.38	0.00	0.00	18.97	100	O
28	Qualified staff	35	22.41	29.31	36.21	0.00	0.00	12.07	100	O
29	Syllabus completion in time	36	17.24	27.59	39.66	0.00	0.00	15.52	100	O
30	Seminar presentation	37	25.86	24.14	29.31	1.72	3.45	15.52	100	O

31	GD & co-curricular activities	38	10.34	29.31	51.72	1.72	0.00	6.90	100	O

(Source: Field data)

M>O>A>I rule

By applying the rule of M>O>A>I, the parameters are grouped together based on their Kano category. So these attributes are arranged sequentially based on the Must be, One dimensional, Attractive and Indifferent attributes.

The Table 4.11.03 shows the Must be and One dimensional attributes. In this table, there is no single parameter which is categorized under the Must be attribute. 31 Out of 38 parameters are categorized under the One dimensional attribute. So as the level of fulfillment of these parameters increases the level of satisfaction also increases and vice versa.

Table 4.11.04
Attractive and Indifferent Attributes for the D.R.K.C.C. Students
The following table depicts the Attractive and Indifferent attributes. (n=58)

Sr.	Parameter Name	Parameter No.	A (in %)	M (in %)	O (in %)	R (in %)	Q (in %)	I (in %)	Total	Category
1	Wi-Fi campus	6	32.76	12.07	29.31	0.00	1.72	24.14	100	A
2	Website restrictions	7	5.17	17.24	12.07	25.86	8.62	31.03	100	I
3	Alumni associations	16	12.07	20.69	25.86	0.00	1.72	39.66	100	I
4	Counseling facilities	20	18.97	25.86	25.86	0.00	0.00	29.31	100	I
5	Location of institute	27	17.24	17.24	24.14	3.45	5.17	32.76	100	I
6	Vehicle parking space	33	18.97	25.86	25.86	1.72	0.00	27.59	100	I

(Source: Field data)

The Table 4.11.04 shows the Attractive and Indifferent attributes. The Wi-Fi campus is a categorized under the Attractive attribute. The students of the Deshbhakta Ratnappa Kumbhar College of Commerce, Kolhapur are not expecting the Wi-Fi campus but if they are offered then student satisfaction level will increase tremendously.

Alumni associations, counseling facilities, location of institute, vehicle parking space and website restrictions in computer lab are categorized under the Indifferent attributes. These parameters are not having much impact on the student satisfaction level.

Table 4.11.05
Extent of Satisfaction and Extent of Dissatisfaction for the D.R.K.C.C. Students
The following table depicts the values of Extent of Satisfaction and Extent of Dissatisfaction for the parameters. (n=58)

Sr.	Parameter Name	Parameter No.	Parameter Category	Extent of Satisfaction	Extent of Dissatisfaction
1	Books availability	1	O	0.61	-0.89
2	Journals availability	2	O	0.60	-0.59
3	Library Staff behavior	3	O	0.48	-0.75
4	Reading room availability	4	O	0.60	-0.65
5	Computers with fast internet connection	5	O	0.52	-0.71
6	Wi-Fi campus	6	A	0.63	-0.42
7	Website restrictions	7	I	0.26	-0.45
8	Latest software	8	O	0.46	-0.56
9	Statistical packages for research	9	O	0.59	-0.59
10	Communication development facilities	10	O	0.67	-0.62
11	Campus interviews	11	O	0.60	-0.79
12	Interview preparations	12	O	0.57	-0.69
13	Corporate exposure	13	O	0.57	-0.67
14	English communication development programs	14	O	0.72	-0.55
15	Aptitude improvement	15	O	0.62	-0.52
16	Alumni associations	16	I	0.39	-0.47
17	Institute Brand name	17	O	0.60	-0.53
18	Management festivals	18	O	0.74	-0.54
19	Case studies & live projects	19	O	0.66	-0.57
20	Counseling facilities	20	I	0.45	-0.52
21	Guest lectures	21	O	0.56	-0.54
22	Anti ragging cell	22	O & I	0.38	-0.63
23	Canteen facility	23	O	0.57	-0.55
24	Transportation facility	24	O	0.54	-0.49
25	Medical first aid facility	25	O	0.51	-0.58
26	Fee installment facility	26	O	0.64	-0.62
27	Location of institute	27	I	0.45	-0.45
28	Hostel facility	28	O	0.53	-0.52
29	Well furnished classrooms	29	O	0.67	-0.72
30	Well furnished seminar hall	30	O	0.59	-0.74
31	Well furnished auditorium	31	O	0.52	-0.59
32	Recreational facility	32	O	0.61	-0.67
33	Vehicle parking space	33	I	0.46	-0.53
34	Gymnasium facility	34	O	0.60	-0.62
35	Qualified staff	35	O	0.59	-0.66
36	Syllabus completion in time	36	O	0.57	-0.67
37	Seminar presentation	37	O	0.58	-0.56
38	GD & co-curricular activities	38	O	0.63	-0.82

(Source: Field data)

As shown in Table 4.11.05, Extent of Satisfaction and Extent of Dissatisfaction for the parameters. The Extent of Satisfaction when indicates high positive value, student satisfaction will increase tremendously when the parameters or requirements are fulfilled. The low value of Extent of Satisfaction indicates the satisfaction of students will be less increased due to fulfilling the parameters or requirements.

The Table 4.11.05 shows the highest positive value of Extent of satisfaction for the parameters viz. Management festivals, English communication development programs, communication development facilities, well furnished classrooms and case studies and live projects. So these parameters are having highest positive influence on the satisfaction level of students. As the level of fulfillment of these parameters increases, the level of satisfaction also increases.

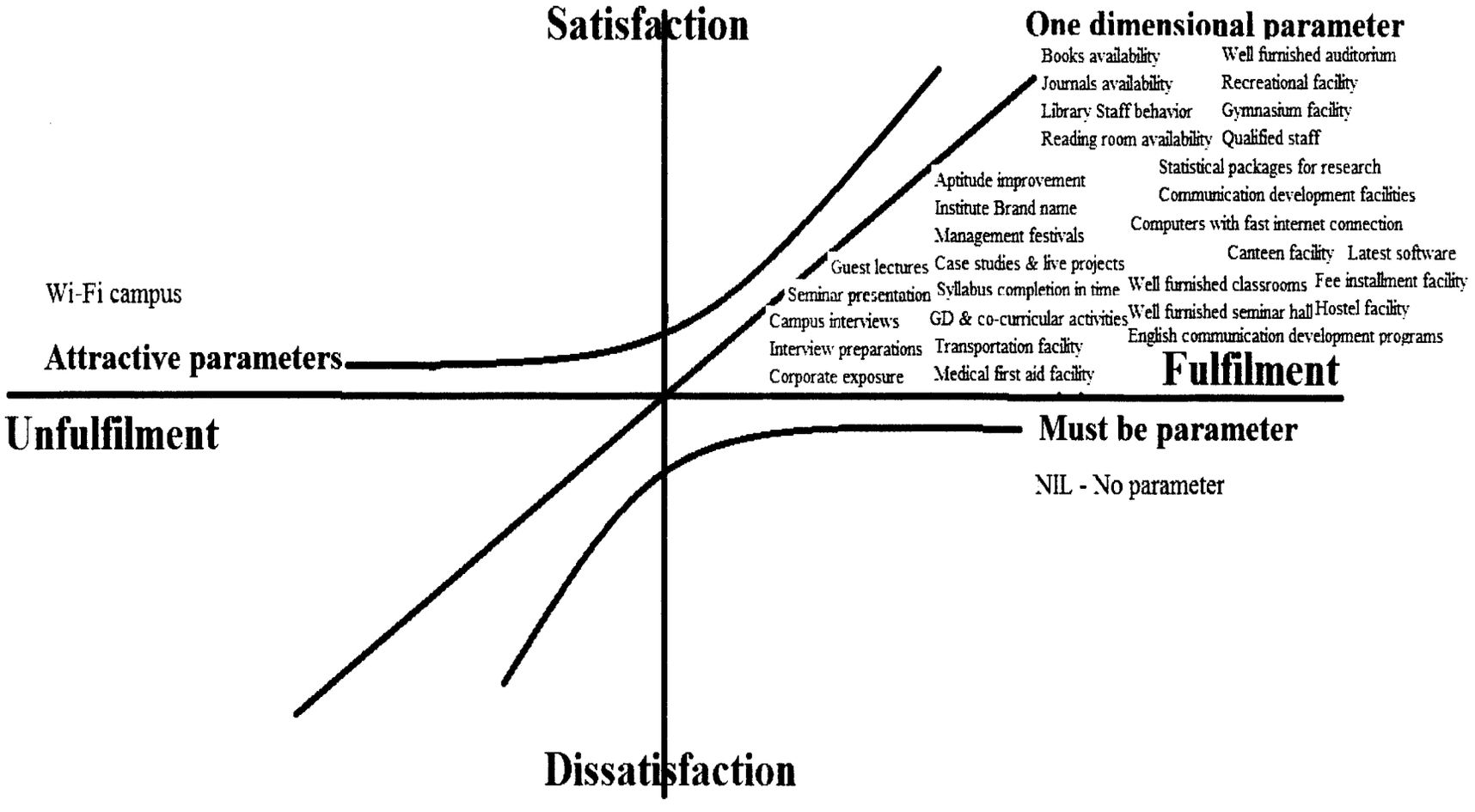
Website restrictions, anti ragging cell, alumni associations are having low positive value for the Extent of Satisfaction. So these parameters are having less influence on the satisfaction level of students of Deshbhakta Ratnappa Kumbhar College of Commerce, Kolhapur.

The high value of Extent of Dissatisfaction indicates student satisfaction level will decrease tremendously if these are not provided. The low value of Extent of Dissatisfaction indicates as the level of fulfillment of these parameters decrease there will be less increase in student dissatisfaction.

The parameters viz. books availability, GD and co-curricular activities, campus interviews, library staff behavior, well furnished seminar hall, well furnished classrooms, and computers with fast internet connection are having high values for the Extent of Dissatisfaction. So as these are not provided or there is less level of fulfillment of these parameters then it will create tremendous dissatisfaction among the students.

The parameters viz. Wi-Fi campus, website restrictions, location of institute, alumni associations, transportation facility are having low values for the Extent of Dissatisfaction. So as the level of fulfillment of these parameters decreases there is low rise in student dissatisfaction.

Figure 4.6
Kano Model for the DRKCC



4.12 Comparison between Genders for the Responses to the Questions

Table 4.12.01
Mean Value of Responses of Students for Functional and Dysfunctional Questions
Following table depicts mean value of responses of students for the functional question and dysfunctional questions

Sr.	Parameter	Mean
1	Functional question mean for Female	1.67
2	Functional question mean for Male	1.73
3	Dysfunctional question for Female	4.30
4	Dysfunctional question mean for Male	4.26

By looking at the table 4.12.01, it is very clear that the responses of male students do not differ much from the responses of female students for both functional as well as dysfunctional questions.

4.13 Hypotheses Testing

Hypotheses are tested using the Chi square and Independent t test method.

4.13.01 Hypotheses testing using Chi- Square method

Hypothesis 1: Preferences for Kano Attributes and Gender

H_0-The preferences for Attractive requirements, One-dimensional requirements and Must-be requirements has uniform preference from students of both genders.

H_1- The preferences for attractive requirements, One-dimensional requirements and Must-be requirements has not uniform preference from students of both genders.

a) The preference for Attractive requirements has uniform preference from students of both genders.
The calculated value of the Chi-Square is 0.13
With one degree of freedom and at 5% level of significance the table value is 3.841
As the table value is much greater than calculated value, the Null hypothesis is accepted.
'The preference for Attractive requirements has uniform preference from students of both genders' is accepted.

b) The preference for One-dimensional requirements has uniform preference from students of both genders.
The calculated value of the Chi-Square is 11. 66205
With 24 degree of freedom and at 5% level of significance the table value is 36.415
As the table value is much greater than calculated value, the Null hypothesis is accepted.
'The preference for One-dimensional requirements have uniform preference from students of both genders' is accepted.

c) The preference for Must be requirements have uniform preference from students of both genders.
Since the Must be requirement carries only one variable or parameter, hypothesis cannot be tested.

Hypothesis 2: Preferences of Kano Requirements and Educational Disciplines

H_0-The preference for Attractive requirements, One-dimensional requirements and Must-be requirements has uniform preference from students having different educational disciplines.

H_1-The preference for Attractive requirements, One-dimensional requirements and Must-be requirements has not uniform preference from students having different educational disciplines.

a) The preferences for Attractive requirements have uniform preference from students having different educational disciplines.

The calculated value of the Chi-Square is 0.8097

With 3 degree of freedom and at 5% level of significance the table value is 7.815

As the table value is much greater than calculated value, the Null hypothesis is accepted.

'The preference for One-dimensional requirements have uniform preference from students of both genders' is accepted.

b) The preferences for One-dimensional requirements have uniform preference from students having different educational disciplines.

The calculated value of the Chi-Square is 63.10

With 72 degree of freedom and at 5% level of significance the table value is 92.808

As the table value is much greater than calculated value, the Null hypothesis is accepted.

'The preference for One-dimensional requirements have uniform preference from students of both genders' is accepted.

c) The preferences for Must be requirements have uniform preference from students having different educational disciplines.

Since the Must be requirement carries only one variable or parameter, hypothesis cannot be tested.

4.13.02 Test hypotheses using Independent t test method

The set hypotheses are tested using Independent sample t test.

Hypothesis 1: Preferences for Kano Attributes and Gender

H_0- The preferences for Attractive requirements, One-dimensional requirements and Must-be requirements has uniform preference from students of both genders.

H_1- The preferences for Attractive requirements, One-dimensional requirements and Must-be requirements has not uniform preference from students of both genders.

Table 4.13.01
Independent t test for the various requirements and gender
Following table depicts the t value, degree of freedom and 'P' value for the various requirements and gender.

Sr.	Parameter	t-test for Equality of Means		
		T	df	Sig. (2-tailed)
1	One dimensional and Gender	2.826	48	.007
2	Attractive and Gender	-.128	2	.910
3	Must be and Gender	---	---	----

Note: Must be parameters are insufficient to calculate 't' test.

The Table 4.13.01 shows the 't' value for the One dimensional and Gender is 2.826 with 48 degree of freedom having 'P' value 0.007 which is significant (less than 0.05). So the Null hypothesis is rejected.

Also the 't' value for the Attractive and Gender is -0.128 with 2 degree of freedom having 'P' value 0.910 which is non significant (greater than 0.05). So the Null hypothesis is accepted.

Hypothesis 2: Preferences of Kano Requirements and Educational Disciplines

H_0- The preference for Attractive requirements, One-dimensional requirements and Must be requirements has uniform preference from students having different educational disciplines.

H_1- The preference for Attractive requirements, One-dimensional requirements and Must be requirements has uniform preference from students having different educational disciplines.

a) For Attractive Requirements

Table 4.13.02
Independent t Test for the Attractive Requirements
Following table depicts the 't' value, degree of freedom and 'P' value for the various streams.

Sr.	Parameter	t-test for Equality of Means		
		t	df	Sig. (2-tailed)
1	Arts graduate and commerce graduate for Attractive	0.253	2	0.824
2	Arts graduate and Science graduate for Attractive	0.431	2	0.708
3	Arts graduate and Professional course graduate for Attractive	0.264	2	0.817
4	Commerce graduate and Science graduate for Attractive	0.487	2	0.674
5	Commerce graduate and Professional graduate for Attractive	0.00	2	1.00
6	Science graduate and Professional graduate for Attractive	-1.00	2	0.423

For the Arts graduate and commerce graduate for Attractive attributes the 't' value is 0.253 with two degree of freedom having 'P' value 0.824 which is non significant (greater than 0.05). So the null hypothesis is accepted.

For the Arts graduate and Science graduate for Attractive attributes the t value is 0.431 with two degree of freedom having 'P' value 0.708 which is non significant (greater than 0.05). So the null hypothesis is accepted.

For the Arts graduate and Professional course graduate for Attractive attributes the 't' value is 0.264 with two degree of freedom having 'P' value 0.817 which is non significant (greater than 0.05). So the null hypothesis is accepted.

For the Commerce graduate and Science graduate for Attractive attributes the 't' value is 0.487 with two degree of freedom having 'P' value 0.674 which is non significant (greater than 0.05). So the null hypothesis is accepted.

For the Commerce graduate and Professional course graduate for Attractive attributes the 't' value is 0.00 with two degree of freedom having 'P' value 1.00 which is non significant (greater than 0.05). So the null hypothesis is accepted.

For the Science graduate and Professional course graduate for Attractive attributes the 't' value is -1.00 with two degree of freedom having 'P' value 0.423 which is non significant (greater than 0.05). So the null hypothesis is accepted.

b) For One Dimensional Requirements

Table 4.13.03
Independent t Test for the One Dimensional Requirement

Following table depicts the t value, degree of freedom and 'P' value for the various streams.

Sr.	Parameter	t-test for Equality of Means		
		t	df	Sig. (2-tailed)
1	Arts graduate and Commerce graduate for One dimensional	-1.863	48	0.069
2	Arts graduate and Science graduate for One dimensional	-1.187	48	0.241
3	Arts graduate and Professional for One dimensional	-0.983	48	0.331
4	Commerce graduate and Science graduate for One dimensional	0.635	48	0.528
5	Commerce graduate and Professional course graduate for One dimensional	1.382	48	0.173
6	Science graduate and Professional graduate for One dimensional	0.468	48	0.642

For the Arts graduate and Commerce graduate for One dimensional attributes the 't' value is -1.863 with 48 degree of freedom having 'P' value 0.069 which is non significant (greater than 0.05). So the null hypothesis is accepted.

For the Arts graduate and Science graduate for One dimensional attributes the t value is -1.187 with 48 degree of freedom having 'P' value 0.241 which is non significant (greater than 0.05). So the null hypothesis is accepted.

For the Arts graduate and Professional course graduate for One dimensional attributes the 't' value is -0.983 with 48 degree of freedom having 'P' value 0.331 which is non significant (greater than 0.05). So the null hypothesis is accepted.

For the Commerce graduate and Science graduate for One dimensional attributes the t value is 0.635 with 48 degree of freedom having 'P' value 0.528 which is non significant (greater than 0.05). So the null hypothesis is accepted.

For the Commerce graduate and Professional course graduate for One dimensional attributes the t value is 1.382 with 48 degree of freedom having 'P' value 0.173 which is non significant (greater than 0.05). So the null hypothesis is accepted.

For the Science graduate and Professional course graduate for One dimensional attributes the t value is 0.468 with 48 degree of freedom having 'P' value 0.642 which is non significant (greater than 0.05). So the null hypothesis is accepted.

c) For Must be Requirements

Since the Must be requirement carries only one variable or parameter, 't' value cannot be computed.

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