Perception of Students towards Quality In Higher Education

***Avnish Vijay**
****Harsh Purohit**

Introduction

Quality is emerging as a vital component in every educational institution in the process of globalization of education. Quality assurance is a holistic approach which shelters all the processes of higher education institution to help the students and other stake holders too in expected quality standards. India has resorted to quality assurance & accreditation criteria as a means for reforming and developing education standards in the country. There are two major accreditation bodies in India namely National board of Accreditation (NBA) and National Assessment and Accreditation Council (NAAC) which are assessing and accrediting the higher educational institutions based on certain criteria and parameters. The government of India is updating the process of accreditation of these two accrediting agencies to make them at par with International standards. But many institutions are still not showing interest in being accredited by these bodies. Therefore, there is a need to study the perception of various stake holders of education towards quality of higher education. This study is done with the students studying in higher educational institutions in Rajasthan, Gujarat, New Delhi, Haryana, UP and MP.

Key Words- Quality, Accreditation, Higher Education, Perception of Quality, NAAC, NBA, Perception

Need and Significance of the Study

In the recently declared world rankings 2018, there is only one institution - IISC, Bengaluru – which is placed in 251-300 grouping of rankings for the best Universities world-wide. It clearly shows that Higher Educational Institutions in India are yet to do a lot of work in terms of delivering quality which matches the International Standards. With the mushroom growth of the Higher Educational Institutions in India, no doubt quality has been a point of discussion. Quality is a perceptual, conditional, and somewhat subjective attribute and may be understood differently by different people. So there is a need to know the perception of one of the stake holders of higher educational institutions that is "Student".

Research Objectives

- To assess the attitude of students towards accreditation of higher educational institutions.
- To assess the perception of students towards various parameters of quality.

Methodology of Research

Type of Research

The study is analytical and descriptive in nature

Sources of data collection

Both primary and secondary data have been used. Primary data were collected through questionnaires and secondary data were relied upon journals, magazines, and websites.

Sampling technique

Convenient sampling technique has been used to collect the data.

Sample size

The opinion of 466 students from various higher educational institutions was collected.

Scope of the study

The scope of the study is restricted to Rajasthan, NCR, Gujarat, UP and MP state.

Limitations

Time and resource constraint

Tools of analysis

- Demographic percentage Analysis
- Factor Analysis with Scree Tests

Analysis and interpretation of data

Table1: Demographic Profile of Respondents

Particulars	Independent Variables	Frequency	Percentage
Gender	Male	187	40.13
	Female	279	59.87
Age Group	Less than 25	422	90.56
	26 to 30	24	5.15
	31 and older	20	4.29
Monthly Household Income	Less than 20000	43	9.23
	20000 – 30000	86	18.45
	31000 – 40000	131	28.11
	41000 – 50000	81	17.38
	Above 50000	125	26.82
Educational Qualification	UG	250	53.65
	PG	191	40.99
	PhD	25	5.36
Academic Discipline	Business & Management	132	28.33
	Commerce	62	13.30
	Engineering & Technology	100	21.46
	Humanities	28	6.01
	Science (B.Sc., M.Sc.)	102	21.89
	IT & Computers (BCA, MCA)	34	7.30
	Architecture	8	1.72

Table 2: Perception of Students towards Various Variables of Quality

S. No.	Variable	Not Important at All	Slightly Important	Moderately Important	Important	Highly Important
1	Affiliations and Connections	26 (5.6%)	15 (3.2%)	60 (12.9%)	152 (32.6)	213 (45.7%)
2	Strong Leadership	19 (4.1%)	29 (6.2%)	102 (21.9%)	221 (47.4%)	95 (20.4%)
3	Promote Indian Culture, Ethics	10 (2.1%)	34 (7.3%)	150 (32.2%)	178 (38.2%)	94 (20.2%)
4	Research and Innovations	14 (3.0%)	35 (7.5%)	79 (17%)	172 (36.9%)	166 (35.6%)
5	Evaluation Process and Reforms	17 (3.6%)	29 (6.2%)	122 (26.2%)	161 (34.5%)	137 (29.4%)
6	Exclusive for boys/girls	15 (3.2%)	46 (9.9%)	190 (40.8%)	137 (29.4%)	78 (16.7%)
7	Student Achievements	18 (3.9%)	19 (4.1%)	61 (13.1%)	132 (28.3%)	236 (50.6%)
8	Teacher Profile and Quality	10 (2.1%)	16 (3.4%)	60 (12.9%)	151 (32.4%)	229 (49.1%)
9	Good Placements	14 (3%)	25 (5.4%)	60 (12.9%)	147 (31.5%)	220 (47.2%)
10	Direct Admission	9 (1.9%)	13 (2.8%)	64 (13.7%)	180 (38.6%)	200 (42.9%)
11	Affordable Fee Structure	15 (3.2%)	28 (6%)	58 (12.4%)	117 (25.1%)	248 (53.2%)
12	Co-educational	13 (2.8%)	13 (2.8%)	71 (15.2%)	176 (37.8%)	193 (41.4%)
13	Industry Collaboration	6 (1.3%)	24 (5.2%)	66 (14.2%)	146 (31.3%)	224 (48.1%)
14	Residential Campus	12 (2.6%)	31 (6.7%)	135 (29%)	140 (30%)	148 (31.8%)
15	ICT Infrastructure	10 (2.1%)	43 (9.2%)	142 (30.5%)	169 (36.3%)	102 (21.9%)
16	Library	17 (3.6%)	64 (13.7%)	146 (31.3%)	135 (29%)	104 (22.3%)

17	Physical Infrastructure	34 (7.3%)	82 (17.6%)	147 (31.5%)	107 (23%)	96 (20.6%)
18	Hostel Facilities	21 (4.5%)	58 (12.4%)	160 (34.3%)	134 (28.8%)	93 (20%)
19	Strong Alumni Connection	18 (3.9%)	29 (6.2%)	55 (11.8%)	154 (33%)	210 (45.1%)
20	Market Reputation	18 (3.9%)	39 (8.4%)	111 (23.8%)	159 (34.1%)	139 (29.8%)
21	Old Establishment	14 (3%)	42 (9%)	94 (20.2%)	155 (33.3%)	161 (34.5%)
22	Accreditation Status	22 (4.7%)	42 (9%)	62 (13.3%)	113 (24.2%)	227 (48.7%)
23	Relative passed out or friend studying	38 (8.2%)	30 (6.4%)	62 (13.3%)	116 (24.9%)	220 (47.2%)
24	Research Facilities	72 (15.5%)	83 (17.8%)	108 (23.2%)	120 (25.8%)	83 (17.8%)
25	Extra-Curricular Activities	9 (1.9%)	28 (6%)	66 (14.2%)	205 (44%)	158 (33.9%)
26	Result and Examination Schedule	14 (3%)	38 (8.2%)	153 (32.8%)	164 (35.2%)	97 (20.8%)
27	Rich Curriculum	19 (4.1%)	30 (6.4%)	127 (27.3%)	184 (39.5%)	106 (22.7%)
28	Flexibility in Choosing Subjects	14 (3%)	33 (7.1%)	77 (16.5%)	158 (33.9%)	184 (39.5%)
29	Student Diversity	24 (5.2%)	26 (5.6%)	92 (19.7%)	116 (24.9%)	208 (44.6%)

Data Analysis - Factor Analysis with Scree Test

Secondary studies was referred to have an idea about the present study and to draw the variables associated with quality of higher education. The present research study has drawn 29 number of variables which can affect quality of higher education from parent's point of view. In the same manner, to analyse and interpret the data collected and the study, it was considered to give importance to have the most important factors, which can affect quality of higher education. For this reason, the collected dataset was trimmed into few most important factors with the help of globally recognized marketing research technique, Factor Analysis using IBM SPSS 20.

Initially, factor analysis, data reduction technique was applied on the data collected as a whole and conducted based on PCA with Eigenvalues Equal to 1. Analysis is based on PCA with eigenvalues equal to 1, by default. Varimax Rotation was adopted with Absolute value 0.40.

Correlation Matrix has no variable having correlation more than .699 and hence none of the variable at this stage is decided to compare and drop, based on correlation matrix. It is also found that the determinant value in the matrix is .001 which is acceptable. The value very close to 1 is generally good. The value of .001 shows no Multicollinearity and there is no need to reduce any of the variables taken at this stage of analysis based on Multicollinearity.

KMO and Barlett's Test was conducted by Factor Analysis. KMO was conducted for sample adequacy and it is found that sample size in the present study is adequate in nature with a value of 0.755. The standard value is 0.7 and above. Barlett's Test is used for homogeneity of variance where the value is significant in our test. It is always regarded as 0 as the best value.

Table 3: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.755
Bartlett's Test of Sphericity	Approx. Chi-Square	3079.595
	df	406
	Sig.	.000

Communality

It is the degree at which the variables included in the data correlates with the other variables. Communalities with high loadings are always regarded as good. If any variable have low loadings, generally below .3 than that particular variable may face trouble and struggle in loading on the other variable. In this current study, at this point of analysis, all variables have shown reliable loadings as expressed in table below:

Table 4: Communalities (All Factors)

Communalities (All Factors)		
	Initial	**Extraction**
Affiliations & Connections	1.000	.716
Strong Leadership	1.000	.706
Promote Indian Culture, Ethics	1.000	.426
Research, and Innovations	1.000	.515
Evaluation Process and Reforms	1.000	.447
Exclusive for boys/girls	1.000	.326
Student Achievements	1.000	.536
Teacher Profile and Quality	1.000	.596
Good Placements	1.000	.674
Direct Admission	1.000	.608
Affordable Fee Structure	1.000	.599
Co-Educational	1.000	.506
Industry Collaboration	1.000	.578
Residential Campus	1.000	.552
IT Infrastructure	1.000	.631
Library	1.000	.693
Physical Infrastructure	1.000	.631
Hostel Facilities	1.000	.483

Strong Alumni Connection	1.000	.612
Market Reputation	1.000	.517
Old Establishment	1.000	.553
Accreditation Status	1.000	.594
Relative passed out or friend studying	1.000	.545
Research Facilities	1.000	.622
Extra-Curricular Activities	1.000	.525
Result and Examination Schedule	1.000	.683
Rich Curriculum	1.000	.642
Flexibility in Choosing Subjects	1.000	.587
Student Diversity	1.000	.794
Extraction Method: Principal Component Analysis.		

There are total 9 components or variables which are extracted initially from the table given above as Total Variance Explained. All the extracted components have eigenvalues more than 1. The Factors extracted with the group of variables are interpreted in the table of RCM given below.

Table 5: Rotated Component Matrix (All Factors)

Rotated Component Matrix									
	Component								
	1	2	3	4	5	6	7	8	9
Library	.803								
Physical Infrastructure	.729								
IT Infrastructure	.682								
Hostel Facilities	.543								
Old Establishment		.705							
Accreditation Status		.699							
Strong Alumni Connection		.680							
Student Achievements		.560							
Market Reputation		.465							
Industry Collaboration			.707						
Residential Campus			.669						
Research, and Innovations			.493						
Evaluation Process and Reforms									
Affordable Fee Structure				.733					

Co-Educational				.657					
Direct Admission				.535	.421				
Good Placements					.777				
Teacher Profile and Quality					.697				
Rich Curriculum						.784			
Result and Examination Schedule						.779			
Extra-Curricular Activities						.443			
Affiliations & Connections							.815		
Strong Leadership							.803		
Promote Indian Culture, Ethics									
Research Facilities								.652	
Relative passed out or friend studying								.491	
Exclusive for boys/girls									
Student Diversity									.877
Flexibility in Choosing Subjects									.561
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.									
a. Rotation converged in 12 iterations.									

RCM as expressed in table above, extracted 9 factors initially containing all the given variables but factors 7, 8 and 9 does not represent the satisfactory numbers of variables limited up to two only, which is not a good fit. It is always good and recommended to extract three or more variables in any respective factor extracted. On the other side, the RCM matrix removed few variables also as they are not extracted and won't be used for further analysis. Promote Indian Culture, Ethics, Exclusive for boys/girls, Evaluation Process and Reforms was removed from the analysis table.

As the above extracted RCM does not represent a good fit, it is decided to run factor analysis on a limited or fixed factors in numbers to be extracted. It is observed that before applying data reduction technique, it is important to have an idea about how many factors a study need to extract. By default, data reduction technique through factor analysis, extract all the components/variables having Eigenvalues equal to 1 and above.

The eigenvalue for any variable or factor evaluates or calculates variable's variance, and it is accounted in that particular factor. Factor comprising of low eigenvalue, have little to explain the variances in the variables. Such variables must be ignored.

The Eigenvalue works on Kaiser Criterion. The rule explained in this criterion drops the variables with eigenvalues having values less than 1. It is by default in SPSS and in most of the softwares

related to statistics. It may over-extract the factors and is not recommended because it is used as sole cut-off criterion.

To reduce the above mentioned problem it is stated by many researchers and studies to apply 'Scree Test' before applying data reduction technique. Scree Test actually tells how many factors we must extract to get the accurate results.

Generally in samples small in numbers, we do not have satisfactory information to justify the factors which can be retained.

According to Velicer & Jackson (1990), Scree Test can be applied for retention of the possible factors.

The scree plot/test with two elbows or two drops is not fit and only factors, which exist in first elbow or first drop, are selected for solution.

On the basis of the above observations and recommendations, Scree Plot Test was conducted with the help of IBM SPSS 20. Following graph represent 'Scree Plot Test' for the data collected before data/factor reduction:

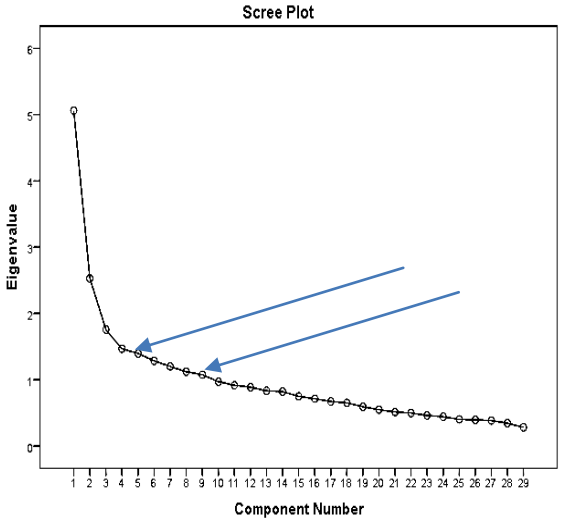

Figure: 1

Scree Diagram mentioned above represent two elbows for the present data. The first elbow ends at component number 5 and second ends at component number 10. Component 10 and above have eigenvalues less than 1 and does not make any sense for the present study in data reduction and cannot be extracted for further analysis. Based on the analysis, the diagram mentioned above represents only 5 factors to be considered as a good fit.

Factor analysis, data reduction technique, was thus applied finally and conducted with six numbers of fixed factors. Analysis is based on PCA with eigenvalues equal as 1, by default. Varimax Rotation was adopted with Absolute value 0.40.

Correlation Matrix has no variable having correlation more than .699 and hence none of the variable at this stage is decided to drop. It is also found that the determinant value in the matrix is .001 which is acceptable. The value very close to 1 is generally good. The value of .001 shows no Multicollinearity

and there is no need to reduce any of the variables taken at this stage of analysis based on Multicollinearity.

KMO and Barlett's Test was conducted with Factor Analysis. KMO was conducted for sample adequacy and it is found that sample size is adequate in nature with a value of .755. The standard value is .7 and above. Barlett's Test is used for homogeneity of variance where the value is significant in our test. It is always regarded as 0 as the best value.

Table 6: KMO and Bartlett's Test (Five factors extracted)

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.755
Bartlett's Test of Sphericity	Approx. Chi-Square	3079.595
	df	406
	Sig.	.000

Communality

It is the degree at which the variables included in the data correlates with the other variables. Communalities with high loadings are always regarded as good. If any variable have low loadings, generally below .3 than that particular variable face trouble and struggle in loading on the other variable.

Table 7: Communalities (Five factor extraction)

Communalities (Five Factor Extraction)		
	Initial	**Extraction**
Affiliations & Connections	1.000	.572
Strong Leadership	1.000	.502
Promote Indian Culture, Ethics	1.000	.402
Research, and Innovations	1.000	.355
Evaluation Process and Reforms	1.000	.372
Exclusive for boys/girls	1.000	.213
Student Achievements	1.000	.435
Teacher Profile and Quality	1.000	.433
Good Placements	1.000	.308
Direct Admission	1.000	.312
Affordable Fee Structure	1.000	.468
Co-Educational	1.000	.409
Industry Collaboration	1.000	.349
Residential Campus	1.000	.407
IT Infrastructure	1.000	.527
Library	1.000	.580
Physical Infrastructure	1.000	.574
Hostel Facilities	1.000	.432
Strong Alumni Connection	1.000	.448
Market Reputation	1.000	.423

Old Establishment	1.000	.411
Accreditation Status	1.000	.532
Relative passed out or friend studying	1.000	.348
Research Facilities	1.000	.387
Extra-Curricular Activities	1.000	.431
Result and Examination Schedule	1.000	.572
Rich Curriculum	1.000	.457
Flexibility in Choosing Subjects	1.000	.409
Student Diversity	1.000	.143
Extraction Method: Principal Component Analysis.		

Five components or factors in the solution were finally extracted based on PCA having Eigenvalues more than 1. This accounts for almost 42% and above of the observed variation.

Table 8: Total Variance Explained (Five factor extraction)

Total Variance Explained (Five Factor Extraction)									
Component	**Initial Eigenvalues**			**Extraction Sums of Squared Loadings**			**Rotation Sums of Squared Loadings**		
	Total	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	5.059	17.445	17.445	5.059	17.445	17.445	2.941	10.141	10.141
2	2.530	8.725	26.170	2.530	8.725	26.170	2.813	9.701	19.842
3	1.758	6.061	32.230	1.758	6.061	32.230	2.418	8.337	28.179
4	1.468	5.062	37.292	1.468	5.062	37.292	2.174	7.495	35.674
5	1.398	4.821	42.113	1.398	4.821	42.113	1.867	6.439	42.113
6	1.285	4.432	46.545						
7	1.202	4.146	50.691						
8	1.121	3.865	54.556						
9	1.077	3.712	58.269						
10	.971	3.349	61.618						
11	.918	3.167	64.785						
12	.888	3.063	67.849						
13	.835	2.880	70.728						
14	.822	2.836	73.565						
15	.751	2.590	76.155						
16	.714	2.462	78.617						
17	.673	2.320	80.937						
18	.654	2.254	83.190						
19	.592	2.043	85.233						
20	.550	1.896	87.129						
21	.514	1.774	88.903						
22	.499	1.719	90.622						
23	.462	1.595	92.217						
24	.443	1.529	93.745						
25	.404	1.393	95.138						

26	.396	1.367	96.506						
27	.385	1.326	97.832						
28	.346	1.193	99.025						
29	.283	.975	100.000						
Extraction Method: Principal Component Analysis.									

There are total 5 components or variables which are finally extracted from the table given above. All the extracted components have eigenvalues almost 1.4 and above, which is a good fit. The Factors extracted with the group of variables are interpreted in the table of RCM given below. Varimax Rotation with Kaiser Normalisation method, by default, was used to rotate the factors.

Table 9: Rotated Component Matrix (Five Factor Extraction)

Rotated Component Matrix					
	Component				
	1	2	3	4	5
Strong Alumni Connection	.630				
Accreditation Status	.623				
Student Achievements	.622				
Old Establishment	.607				
Market Reputation	.518				
Flexibility in Choosing Subjects	.502				
Teacher Profile and Quality	.461				
Student Diversity					
Library		.733			
Physical Infrastructure		.697			
IT Infrastructure		.661			
Research Facilities		.593			
Hostel Facilities		.571			
Exclusive for boys/girls					
Affordable Fee Structure			.619		
Co-Educational			.611		
Direct Admission			.545		
Industry Collaboration			.470		
Good Placements			.459		
Residential Campus					
Evaluation Process and Reforms					
Affiliations & Connections				.732	
Strong Leadership				.682	
Research, and Innovations				.430	
Relative passed out or friend studying					
Result and Examination Schedule					.725
Rich Curriculum					.650
Extra-Curricular Activities					.514
Promote Indian Culture, Ethics					.412

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 9 iterations.

RCM as expressed in table above, extracted 5 factors finally comprising all the given variables. It is always good and recommended to extract three or more variables in any respective factor extracted. Above Matrix extracted at-least 3 variables in each factor except one which is treated acceptable. On the other side, the RCM matrix removed few variables also and they won't be extracted and won't be used further for any analysis. It is observed that Student Diversity, Residential Campus, Evaluation Process and Reforms, Relative passed out or friend studying were removed from the table. They won't be further used for analysis.

All the five factors extracted above are expressed below:

Factor 1 is named as "Reputation and Academic Quality"

Table 10: Factor 1 "Reputation and Academic Quality"

Factor	Variables	Factor Loadings
Factor 1	Strong Alumni Connection	.630
Reputation and Academic Quality	Accreditation Status	.623
	Student Achievements	.622
	Old Establishment	.607
	Market Reputation	.518
	Flexibility in Choosing Subjects	.502
	Teacher Profile and Quality	.461

Factor 1 is a combination of 7 variables extracted above like Strong Alumni Connection, Accreditation Status, Student Achievements, Old Establishment, Market Reputation, Flexibility in Choosing Subjects, Teacher Profile and Quality. The Factor was named **Reputation and Academic Quality.** It independently contributed 17.445% of the total variation.

Factor 2 is named as "Infrastructural Facilities"

Table 11: Factor 2 "Infrastructural Facilities"

Factor	Variables	Factor Loadings
Factor 2	Library	.733
Infrastructural Facilities	Physical Infrastructure	.697
	ICT Infrastructure	.661
	Research Facilities	.593
	Hostel Facilities	.571

Factor 2 is a combination of 5 variables extracted above like Library, Physical Infrastructure, IT Infrastructure, Research Facilities, Hostel Facilities. The Factor was named as **Infrastructural Facilities.** It independently contributed 8.725% of the total variation.

Factor 3 is named as "Better Prospects"

Table 12: Factor 3 "Better Prospects"

Factor	Variables	Factor Loadings
Factor 3	Affordable Fee Structure	.619
Better Prospects	Co-Educational	.611
	Direct Admission	.545
	Industry Collaboration	.470
	Good Placements	.459

Factor 3 is a combination of 5 variables extracted above like Affordable Fee Structure, Co-Educational, Direct Admission, Industry Collaboration, Good Placements. The Factor was named as **Better Prospects.** It independently contributed 6.061% of the total variation.

Factor 4 is named as "Research Orientation"

Table 13: Factor 4 "Research Orientation"

Factor	Variables	Factor Loadings
Factor 4	Affiliations & Connections	.732
Research Orientation	Strong Leadership	.682
	Research, and Innovations	.430

Factor 4 is a combination of 3 variables extracted above like Affiliations & Connections, Strong Leadership, Research, and Innovations. The Factor was named as **Research Orientation.** It independently contributed 5.062% of the total variation.

Factor 5 is named as "Content Delivery Management"

Table 14: Factor 5 "Content Delivery Management"

Factor	Variables	Factor Loadings
Factor 5	Result and Examination Schedule	.725
Content Delivery Management	Rich Curriculum	.650
	Extra-Curricular Activities	.514
	Promote Indian Culture, Ethics	.412

Factor 5 is a combination of 4 variables extracted above like Result and Examination Schedule, Rich Curriculum, Extra-Curricular Activities, Promote Indian Culture, Ethics. The Factor was named as **Content Delivery Management.** It independently contributed 4.821% of the total variation.

Data Analysis – Importance of Variables in the factors extracted which can affect quality of higher educational institutions.

In this part, study itemizes opinion of samples about the factors having importance related to quality of higher educational institutions. The said importance of the variables associated with the extracted factors has been noted after comparison of the opinion scores noted to each variable. In the study, Likert-Type-Scale is used and the value for calculation of the range in analyzing the variables is calculated and expressed as:

$$(5-1)/5 = 0.8$$

The value between 1 to 1.8 – Least Important.

The value between 1.81 to 2.60 – Slightly Importance.

The value between 2.61 to 3.40 – Moderately Importance.

The value between 3.41 to 4.20 – High Importance.

The value between 4.21 and above – Highly Important.

Factor	Variables	Factor Loadings
Factor 1	Strong Alumni Connection	.630
Reputation and Academic Quality	Accreditation Status	.623
	Student Achievements	.622
	Old Establishment	.607
	Market Reputation	.518
	Flexibility in Choosing Subjects	.502
	Teacher Profile and Quality	.461

Table 15: Descriptive analysis of Factor Reputation and Academic Quality

Descriptive Statistics			
	N	**Mean**	**Std. Deviation**
Strong Alumni Connection	466	4.09	1.077
Accreditation Status	466	4.03	1.186
Student Achievements	466	4.18	1.058
Old Establishment	466	3.87	1.079
Market Reputation	466	3.78	1.082
Flexibility in Choosing Subjects	466	4.00	1.056
Teacher Profile and Quality	466	4.23	.949
Valid N (listwise)	466		

Table 16: Importance analysis of factor Reputation and Academic Quality

Factor	Variables	Importance
Factor 1	Strong Alumni Connection	High
Reputation and Academic Quality	Accreditation Status	High
	Student Achievements	High
	Old Establishment	High
	Market Reputation	High
	Flexibility in Choosing Subjects	High
	Teacher Profile and Quality	Highly

Interpretation

It is interpreted from above analysis that the variables like Strong Alumni Connection, Accreditation Status, Student Achievements, Old Establishment, Market Reputation, Flexibility in Choosing Subjects are high important but Teacher Profile and Quality is having highly importance. Therefore, the Teacher Profile and Quality must be given high importance by higher educational institutions for quality improvement and to satisfy students.

Factor	Variables	Factor Loadings
Factor 2	Library	.733
Infrastructural Facilities	Physical Infrastructure	.697
	ICT Infrastructure	.661
	Research Facilities	.593
	Hostel Facilities	.571

Table 17: Descriptive Analysis of Factor Infrastructural Facilities

Descriptive Statistics			
	N	**Mean**	**Std. Deviation**
Library	466	3.53	1.092
Physical Infrastructure	466	3.32	1.193
ICT Infrastructure	466	3.67	.988
Research Facilities	466	3.13	1.324
Hostel Facilities	466	3.47	1.082
Valid N (listwise)	466		

Table 18: Importance Analysis of Factor Infrastructural Facilities

Factor	Variables	Importance
Factor 2	Library	High
Infrastructural Facilities	Physical Infrastructure	Moderate
	ICT Infrastructure	High
	Research Facilities	Moderate
	Hostel Facilities	High

Interpretation

It is interpreted from above analysis that the variables like library, ICT infrastructure, Hostel Facilities are high important but physical infrastructure and research facilities are moderately important. Therefore Library, ICT infrastructure and Hostel facilities must be given high importance by higher educational institutions for quality improvement and to satisfy students.

Factor	Variables	Factor Loadings
Factor 3	Affordable Fee Structure	.619
Better Prospects	Co-Educational	.611
	Direct Admission	.545
	Industry Collaboration	.470
	Good Placements	.459

Table 19: Descriptive Analysis of Factor Better Prospects

Descriptive Statistics			
	N	**Mean**	**Std. Deviation**
Affordable Fee Structure	466	4.19	1.074
Co-Educational	466	4.12	.957
Direct Admission	466	4.18	.907
Industry Collaboration	466	4.20	.952
Good Placements	466	4.15	1.033
Valid N (listwise)	466		

Table 20: Importance analysis of factor Better Prospects

Factor	Variables	Importance
Factor 3	Affordable Fee Structure	High
Better Prospects	Co-Educational	High
	Direct Admission	High
	Industry Collaboration	High
	Good Placements	High

Interpretation

It is interpreted from above analysis that although the variables like Affordable Fee Structure, Co-Educational, Direct Admission, Industry Collaboration, Good Placements are given high importance but due consideration should be given to industry collaboration and affordable fee structure because they are given higher opinion as compared to other factors.

Factor	Variables	Factor Loadings
Factor 4	Affiliations & Connections	.732
Research Orientation	Strong Leadership	.682
	Research, and Innovations	.430

Table 21: Descriptive Analysis of Factor Research Orientation

Descriptive Statistics			
	N	**Mean**	**Std. Deviation**
Affiliations & Connections	466	4.10	1.100
Strong Leadership	466	3.74	.986
Research, and Innovations	466	3.95	1.047
Valid N (listwise)	466		

Table 22: Importance Analysis of factor Research Orientation

Factor	Variables	Importance
Factor 4	Affiliations & Connections	High
Research Orientation	Strong Leadership	High
	Research, and Innovations	High

Interpretation

It is interpreted from above analysis that although the variables like Affiliations & Connections, Strong Leadership, Research, and Innovations are given high importance but due consideration should be given to Affiliations & Connections because it is given higher opinion as compared to other factors.

Factor	Variables	Factor Loadings
Factor 5	Result and Examination Schedule	.725
Content Delivery Management	Rich Curriculum	.650
	Extra-Curricular Activities	.514
	Promote Indian Culture, Ethics	.412

Table 23: Descriptive Analysis of Factor Content Delivery Management

Descriptive Statistics			
	N	**Mean**	**Std. Deviation**
Result and Examination Schedule	466	3.63	.998
Rich Curriculum	466	3.70	1.019
Extra-Curricular Activities	466	4.02	.947
Promote Indian Culture, Ethics	466	3.67	.949
Valid N (listwise)	466		

Table 24: Importance Analysis of Factor Content Delivery Management

Factor	Variables	Importance
Factor 5	Result and Examination Schedule	High
Content Delivery Management	Rich Curriculum	High
	Extra-Curricular Activities	High
	Promote Indian Culture, Ethics	High

Interpretation

It is interpreted from above analysis that although the variables like Result and Examination Schedule, Rich Curriculum, Extra-Curricular Activities, Promote Indian Culture, Ethics are given high importance but due consideration should be given to Extra-Curricular Activities because it is given higher opinion as compared to other factors.

Conclusion

It may be concluded from the above analysis that the student's preference for quality parameters are

Teacher Profile and Quality, Library, ICT infrastructure, Hostel facilities, Industry Collaboration, Affordable Fee Structure, Affiliations & Connections, and Extra-Curricular Activities. Therefore the higher educational institutions should work on these factors more to attract and retain the students satisfied.

***Associate Professor,**
Poddar Management and Technical Campus
****Professor and Dean**
Banasthali Vidyapith

References

1. Bandalos, D.L.; Boehm-Kaufman, M.R. (2008),"Four common misconceptions in exploratory factor analysis". In Lance, Charles E.; Vandenberg, Robert J. Statistical and Methodological Myths and Urban Legends: Doctrine, Verity and Fable in the Organizational and Social Sciences. Taylor & Francis. pp. 61–87.
2. Kristopher J. Preacher, Guangjian Zhang, Cheongtag Kim, Gerhard Mels (2013), Choosing the Optimal Number of Factors in Exploratory Factor Analysis: A Model Selection Perspective. Multivariate Behavioral Research, Taylor & Francis, 48: pp. 28–56.
3. Velicer, W. F., & Jackson, D. N. (1990), Component Analysis Versus Common Factor-Analysis - Some Further Observations. Multivariate Behavioral Research, 25(1): pp. 97-114.
4. Liau, Albert & Tan, Teck & Khoo, Angeline. (2011). Scale Measurement: Comparing Factor Analysis and Variable Clustering.
5. Kothari C. R. (2010), "Research Methodology – Methods and Techniques".