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INTRODUCTION

REVIEW OF LITERATURE

NEED/IMPORTANCE OF THE STUDY

STATEMENT OF THE PROBLEM

OBJECTIVES

HYPOTHESES

RESEARCH METHODOLOGY

RESULTS & DISCUSSION

FINDINGS

RECOMMENDATIONS/SUGGESTIONS

CONCLUSIONS

SCOPE FOR FURTHER RESEARCH

ACKNOWLEDGMENTS

REFERENCES

APPENDIX/ANNEXURE

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**BOOKS**

- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio" Ohio State University, Nigeria.

**CONTRIBUTIONS TO BOOKS**

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

**JOURNAL AND OTHER ARTICLES**

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

**CONFERENCE PAPERS**

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

**UNPUBLISHED DISSERTATIONS AND THESES**

- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

**ONLINE RESOURCES**

- Always indicate the date that the source was accessed, as online resources are frequently updated or removed.

**WEBSITES**

- Garg, Bhavet (2011): Towards a New Natural Gas Policy, Political Weekly, Viewed on January 01, 2012 http://epw.in/user/viewabstract.jsp

# A STUDY OF STUDENT'S PERCEPTION FOR SELECTION OF ENGINEERING COLLEGE: A FACTOR ANALYSIS APPROACH

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**ABSTRACT**

*This paper proposes and describes student's perception towards selection of engineering college. Implicit in this theory is the notion that engineering college selection may be viewed as a process which consists of a sequence of interrelated stages. It is posited that students move through these series of stages as they search for desirable colleges. This paper attempts at studying all those aspect which are taken into consideration by a higher secondary passed student while taking admission in an engineering college. Now a days number of engineering institutes in India are catering to a lot of marketing activity, which perplex the students and have substantial effect on the decision making process, which again leads to their expectations. Selecting engineering institutes is high involvement decision for any individual as it determines his career and therefore, the information search behavior is very important. A brief questioner which measures the influence of factors on college choice was administered amongst 100 students seeking admission for engineering colleges. The relationship of these factors to gender, college, aptitude, distance of home and some important factors were examined through factor analysis approach. This research has been undertaken to study and examine the perception of students about the engineering colleges. From the research it is concluded that the five important variables contributing in decision making of the students for selection of institute are Placement activities of the institute and package offered by the recruiters, the recruiters, Alumni opinion, availability of workshops and laboratories and suggestion given by coaching institutes.*

**KEYWORDS**
Factors, Factor analysis, motivation, Perceptions.

## INTRODUCTION

In today's competitive environment, rendering quality service is a key for success, and many experts concur that the most powerful competitive tool currently reshaping marketing and business strategy is service quality. Service quality is a pervasive strategic force and a key strategic issue in any organization. It is no surprise that practitioners and academicians are keen on accurately measuring and understanding issues affecting service quality delivery. Today, many universities are being driven towards commercial competition imposed by environmental challenges. Institutions, in general, need to be concerned not only with what the society values in the skills and abilities of their graduates, but also how their students feel about their educational experience (Bemowski, 1991).Perception plays a key role in college selection. How much prestige, honor, or academic glory can be attained by attending engineering institute? What about a university? Or, in contrast, the perceived status or Image plays a huge role in college selection. Perception is the act or faculty of apprehending by means of the senses or of mind: cognition; understanding. How students perceive service quality is critical because it determines how they evaluate the service. Students evaluate a service based on their expectations. Because expectations are dynamic, evaluations may also shift from time to time. Thus, how customers (students) evaluate what they term as a quality service today, (based on some criterion) may change tomorrow. This calls for continuous monitoring and evaluations of service quality in any service firm.

There are many factors that go into college selection, as well as college perception. The main socializing agents of family, friends, school, and media can help to create how engineering colleges are perceived; perhaps that is where India's bias begins. Research suggests that some agents have more influence than others. The purpose of the study was to illuminate students' views on how it affect and influence their career decisions. Many economists feel that the nation has failed to take advantage of its greatest resource, this being its diverse population. Some of the reasons for this failure are reflected in challenges that are apparent when seeking to attract a diverse population of students to the fields of engineering and other related professions. The college choice is a decision influenced by a number of demographic, economic, social, political, and institutional factors. Different types of students chose to attend certain universities on the basis of one or more factors that link directly to their characteristics and needs. Major factors cited in the literature to influence college choice are: the advice of parents, academic reputation of the institution, availability of the desired program, availability of financial aid, cost of attending the institution, and the location of the college.

Is the students' perception of the college determined by their motivations to attend? For example, are students more satisfied if they chose to attend when they had other options or less satisfied if they were forced by their financial circumstances? This is the aim of this study to determine the perceptions and motivations of students attending engineering students. Therefore, to study the important attributes especially institutional factors that affect students' college choice decision in higher education institutions become pertinent on the part of marketing strategy planning for students' recruitment of higher educational institutions.

## LITERATURE REVIEW

Joseph & Joseph (2000) concluded that course and career information, and physical aspects and facilities and facilities are critical issues that must be kept in mind when educational institutions are trying to create sustainable competitive advantages in marketing strategies. Leblance and Nguyen (1999) identified perceptions of price in the form of the price/quality relationship as most important factors, while Ford et al. (1999) recognized academic reputation, cost/time issues and program issues as the determinants of universities choice. Sevier (1986) stated that research has consistently shown that college or university location can be a major factor for potential student's decision to apply and enroll. Some students may be looking for a school close to their hometown or place of work for convenience and accessibility (Absher & Crawford, 1996; Servier, (1994).A study by Kohn et al. (1976) discussed that an important factor in student predisposition to attend college is the close proximity of a higher education institution to home. It was found that a low-cost, nearby college was an important stimulator of a student's decision to further his or her education. Hossler & Gallagher (1990) also concluded that the proximity to a college campus does affect college attendance rates. Students who live close to a campus are more likely to attend college though they may not attend the campus located near home. As a result, this study hypothesizes that location has a significant influence on college choice decision. Tapan Kumar Nayak & Manish Agrawal(2010), through their research focused on the most important factors that the students keep in the mind while selecting a particular B- School .and suggested how a marketing communication based on these factors can help to these B-school to gain competitive edge.

## OBJECTIVES OF THE STUDY

- To identify and examine the factors responsible for the selection of engineering college.
- To rank the effective factors responsible for the selection of engineering college.
- To identify the factors which are been ignored by the students while selecting the engineering College
- To find out the sources through which students outlines an opinion about engineering colleges
- To identify the key dimensions/factors that influence students' decision in college selection.
- To determine the nature and strength of relationship between service quality dimensions and perception

## METHODOLOGY

The objectives of the study indicate that the study must be carried out at micro level. We elucidate the concept of factor analysis and sampling design, based on the literature pertaining to the student's perception about the engineering college. To study the factors affecting the selection of an engineering college in India the *factor analysis* is being used in our study.

## FACTOR ANALYSIS

The factorial analysis allows a reduction in the number of variable to be groped in to common factors. The use of factor analysis in this study is relevant because it identifies the salient attributes, which potential students use to evaluate an engineering institute. Further, we have also used quantitative marketing research techniques to collect data from a sample of 100 students concerning their ratings of all the institutional attributes.

The main applications of factor analysis technique are:

1. To reduce the number of variables and
2. To detect structure in the relationship between variables, that is to classify variables.

Therefore, factor analysis is applied as data reduction or structured detection method. (Factor analysis was first introduced by Thurstone-1931). The research methodology is broadly divided under the heading as follows:

a) Sampling Design: The sampling technique used in the study is non-probability sampling. It is convenient sample with a judgmental basis. The sample unit is taken as students who have passed their higher secondary examination. The total sample size is 100.

b) Research Design: While determining the various factors, exploratory study was carried out with the help of secondary data. Once the basic factors of the study were found a descriptive study was carried out to know the preferences of the respondent.

c) Data Collection: Data was collected with the help of primary survey as well as secondary sources. The primary data was collected with the help of a close ended -structured questionnaire, designed on a semantic differential scale.

d) Data Analysis: The data is analyzed with the help of factor analysis, to reduce excessive data and correlation techniques. The factors are differentiated with the various variables that are strongly correlated to them. Independent but like factors were grouped by their factor loadings and the result were analyzed by the varimax rotation. The study is based on 44 independent/dependent variables, which were again toned down to 11 different factors with the help of data reduction technique **(factor analysis),** based on most significance to the respondents.

## ANALYSIS AND INTERPRETAION

### PARAMETERS TAKEN IN THE STUDY

1) Institutional Service Standards:
i) University
ii) Certified from National Board of Accreditation(NBA)
iii) ISO Certification
iv) Placement Cell
v) Recruiters
vi) Package offered by the recruiters
vii) Training Programme
viii) Technical events
ix) Opportunity to handle live project
x) Academic qualification of Faculty Members
xi) Teacher student ratio
2) Institutional Environment:
i) College location
ii) The city is attractive
iii) The city having facility for further study
iv) Easy transportation facility (Connectivity with other area)
v) Accommodation
vi) Safety
vii) Existence of cultural activities
viii) Existence of health care means
3) Brand :
i) Ranking given to the college
ii) Golden History of the college
iii) Reputation of the institute
4) Institutional Infrastructure:
i) Size of the building
ii) Physical Facilities
iii) Accessibility of all facilities
iv) Workshops & Laboratory
v) Library resource
vi) Fast search facility in library
vii) E-Library
viii) Wi-Fi zone
ix) Smart classroom equipped with modern pedagogy
x) Canteen facilities
xi) Extracurricular activities organized by college
xii) Sponsorship to attend development program at university level
xiii) Stipend

5) Sources used to form perception:
i) Opinion of friends and family
ii) Coaching institutes
iii) Self visit to college
iv) Alumni opinion
v) Event & exhibition
vi) Publicity
6) Financial factors :
i) Fee structure
ii) Loan facility
iii) Scholarship

The above cited parameters have been classified Into 11 factors with the help of data reduction techniques (factor analysis). The results are shown as follows:

**TABLE 1: KMO AND BARTLETT'S TEST(a)**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .425 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 4482.225 |
| | Df | 946 |
| | Sig. | .000 |

The Bartlett's Test of sphericity is used here to decide whether the results are worth considering or not. The Bartlett's Test of sphericity significant to a level of significance of 0.000 indicates that there is a high level of correlation between variables; therefore factor analysis is being applied.

## FACTOR ANALYSIS AND ITS RESULTS

A data of 100 students who have cleared Engineering Entrance Exam (PET) were randomly surveyed. The use of factor analysis in this study is relevant as it helps in identifying the variables which are taken into consideration by the students seeking admission. The main applications of factor analytic technique are:

1. To reduce the number of variables
2. To detect structure in the relationships between variables, that is to classify the variables.

The result of factor analysis after varimax rotation, has grouped the data into ***11 factors.*** Table 2 below is the representation of the variance explained in terms of 11 factors extracted. The Eigen value chart is show below:

**TABLE 2: TOTAL VARIANCE EXPLAINED**

| Component | Initial Eigen Values(a) | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 19.782 | 20.093 | 20.093 | 19.782 | 20.093 | 20.093 | 9.167 | 9.311 | 9.311 |
| 2 | 15.244 | 15.484 | 35.576 | 15.244 | 15.484 | 35.576 | 7.436 | 7.553 | 16.864 |
| 3 | 11.416 | 11.596 | 47.172 | 11.416 | 11.596 | 47.172 | 8.713 | 8.851 | 25.715 |
| 4 | 7.781 | 7.903 | 55.076 | 7.781 | 7.903 | 55.076 | 9.225 | 9.37 | 35.085 |
| 5 | 6.116 | 6.213 | 61.288 | 6.116 | 6.213 | 61.288 | 9.929 | 10.085 | 45.17 |
| 6 | 5.816 | 5.907 | 67.195 | 5.816 | 5.907 | 67.195 | 8.244 | 8.374 | 53.544 |
| 7 | 4.646 | 4.72 | 71.915 | 4.646 | 4.72 | 71.915 | 7.049 | 7.16 | 60.704 |
| 8 | 4.016 | 4.079 | 75.994 | 4.016 | 4.079 | 75.994 | 5.866 | 5.958 | 66.662 |
| 9 | 2.798 | 2.842 | 78.836 | 2.798 | 2.842 | 78.836 | 7.117 | 7.229 | 73.891 |
| 10 | 2.541 | 2.581 | 81.417 | 2.541 | 2.581 | 81.417 | 4.248 | 4.315 | 78.206 |
| 11 | 2.322 | 2.359 | 83.776 | 2.322 | 2.359 | 83.776 | 5.483 | 5.569 | 83.776 |

**TABLE 3: COMMUNALITIES**

| | Raw | | Rescaled | |
|---|---|---|---|---|
| | Initial | Extraction | Initial | Extraction |
| VAR00001 | 2.401 | 2.007 | 1.000 | .836 |
| VAR00002 | 3.958 | 3.611 | 1.000 | .912 |
| VAR00003 | .961 | .536 | 1.000 | .557 |
| VAR00004 | 1.148 | .772 | 1.000 | .672 |
| VAR00005 | .740 | .233 | 1.000 | .314 |
| VAR00006 | .596 | .346 | 1.000 | .580 |
| VAR00007 | .933 | .530 | 1.000 | .568 |
| VAR00008 | 1.851 | 1.508 | 1.000 | .815 |
| VAR00009 | 2.273 | 1.893 | 1.000 | .833 |
| VAR00010 | 2.642 | 2.273 | 1.000 | .860 |
| VAR00011 | 1.715 | 1.361 | 1.000 | .794 |
| VAR00012 | 3.692 | 3.452 | 1.000 | .935 |
| VAR00013 | 2.755 | 2.443 | 1.000 | .887 |
| VAR00014 | .659 | .451 | 1.000 | .684 |
| VAR00015 | 2.985 | 2.522 | 1.000 | .845 |
| VAR00016 | 4.842 | 4.575 | 1.000 | .945 |
| VAR00017 | 3.456 | 3.132 | 1.000 | .906 |
| VAR00018 | 2.160 | 1.872 | 1.000 | .867 |
| VAR00019 | 1.481 | 1.022 | 1.000 | .690 |
| VAR00020 | 2.572 | 2.030 | 1.000 | .789 |
| VAR00021 | 1.483 | .930 | 1.000 | .627 |
| VAR00022 | .568 | .293 | 1.000 | .515 |
| VAR00023 | 2.081 | 1.622 | 1.000 | .779 |
| VAR00024 | 1.048 | .672 | 1.000 | .641 |
| VAR00025 | 1.017 | .756 | 1.000 | .744 |
| VAR00026 | .269 | .132 | 1.000 | .490 |
| VAR00027 | .311 | .188 | 1.000 | .605 |
| VAR00028 | .965 | .615 | 1.000 | .638 |
| VAR00029 | 2.170 | 1.739 | 1.000 | .801 |
| VAR00030 | 4.916 | 4.714 | 1.000 | .959 |
| VAR00031 | 3.414 | 3.115 | 1.000 | .912 |
| VAR00032 | 3.544 | 3.233 | 1.000 | .912 |
| VAR00033 | 2.340 | 1.861 | 1.000 | .795 |
| VAR00034 | 3.755 | 3.252 | 1.000 | .866 |
| VAR00035 | 3.523 | 2.905 | 1.000 | .824 |
| VAR00036 | 1.738 | 1.275 | 1.000 | .734 |
| VAR00037 | .559 | .264 | 1.000 | .473 |
| VAR00038 | 3.063 | 2.768 | 1.000 | .904 |
| VAR00039 | .304 | .125 | 1.000 | .409 |
| VAR00040 | 4.512 | 4.354 | 1.000 | .965 |
| VAR00041 | 3.043 | 2.458 | 1.000 | .808 |
| VAR00042 | 3.666 | 3.323 | 1.000 | .906 |
| VAR00043 | 3.067 | 2.670 | 1.000 | .870 |
| VAR00044 | 3.275 | 2.649 | 1.000 | .809 |

NOTE: Extraction Method: Principal Component Analysis.

**TABLE 4: ROTATED COMPONENT MATRIX (a)**

| Veriable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| VAR00001 | -0.388 | -0.573 | -0.128 | -0.103 | -0.503 | -0.680 | 0.586 | 0.494 | 0.269 | 0.328 | 0.129 |
| VAR00002 | 0.038 | -0.480 | -0.086 | -0.191 | -0.135 | -1.778 | -0.222 | 0.312 | 0.054 | 0.075 | -0.024 |
| VAR00003 | 0.080 | 0.100 | 0.349 | 0.019 | -0.152 | -0.465 | 0.381 | 0.070 | 0.051 | 0.003 | 0.074 |
| VAR00004 | 0.287 | 0.114 | -0.363 | -0.530 | -0.117 | 0.078 | -0.036 | 0.331 | -0.152 | 0.096 | 0.317 |
| VAR00005 | 0.101 | 0.091 | -0.250 | -0.080 | -0.104 | -0.334 | -0.047 | 0.061 | -0.068 | 0.033 | 0.104 |
| VAR00006 | 0.420 | 0.035 | -0.164 | -0.211 | -0.155 | 0.173 | -0.045 | 0.127 | -0.113 | -0.072 | -0.084 |
| VAR00007 | 0.563 | -0.023 | -0.036 | -0.062 | 0.189 | -0.151 | 0.184 | 0.024 | -0.068 | -0.288 | 0.164 |
| VAR00008 | 0.940 | -0.066 | 0.028 | -0.345 | 0.134 | 0.076 | 0.644 | -0.128 | -0.070 | -0.086 | 0.183 |
| VAR00009 | 1.252 | 0.015 | 0.252 | 0.210 | -0.116 | 0.209 | 0.247 | -0.121 | -0.238 | 0.051 | -0.155 |
| VAR00010 | 1.339 | -0.103 | -0.251 | 0.001 | 0.295 | -0.508 | -0.106 | -0.172 | 0.096 | 0.034 | 0.093 |
| VAR00011 | 0.959 | -0.385 | -0.210 | -0.099 | 0.159 | -0.205 | -0.216 | -0.139 | -0.086 | 0.303 | -0.076 |
| VAR00012 | 0.246 | -0.456 | 0.184 | 0.612 | 1.407 | 0.765 | 0.146 | 0.015 | -0.032 | 0.431 | 0.058 |
| VAR00013 | -0.446 | -0.038 | 0.092 | 0.776 | 1.146 | 0.179 | 0.115 | 0.066 | 0.506 | 0.030 | 0.110 |
| VAR00014 | 0.012 | 0.064 | -0.147 | 0.164 | 0.210 | 0.046 | 0.584 | 0.032 | 0.069 | 0.012 | 0.068 |
| VAR00015 | 0.547 | -0.051 | -0.043 | 0.038 | 0.418 | 0.752 | 1.157 | 0.109 | -0.330 | 0.112 | -0.062 |
| VAR00016 | -0.381 | -0.222 | 0.251 | 0.052 | 0.012 | -0.367 | 0.190 | 0.175 | 2.018 | -0.205 | -0.009 |
| VAR00017 | 0.039 | -0.388 | 0.178 | 0.358 | 0.772 | -0.201 | 1.317 | 0.030 | 0.368 | -0.121 | 0.545 |
| VAR00018 | -0.863 | 0.543 | -0.083 | 0.224 | -0.138 | 0.009 | 0.571 | -0.052 | -0.212 | 0.509 | 0.353 |
| VAR00019 | 0.306 | -0.175 | -0.073 | -0.127 | 0.861 | 0.084 | 0.312 | -0.115 | -0.083 | -0.075 | -0.066 |
| VAR00020 | 0.115 | 0.631 | 1.108 | -0.187 | 0.377 | -0.198 | 0.060 | -0.267 | 0.237 | -0.196 | -0.061 |
| VAR00021 | -0.164 | 0.777 | -0.121 | 0.347 | 0.189 | -0.067 | 0.083 | -0.021 | -0.222 | 0.080 | 0.247 |
| VAR00022 | 0.009 | -0.041 | -0.407 | -0.202 | 0.088 | -0.126 | -0.028 | 0.142 | -0.157 | 0.077 | -0.098 |
| VAR00023 | -0.046 | 1.170 | 0.217 | 0.066 | -0.242 | 0.081 | -0.299 | -0.063 | 0.133 | 0.045 | -0.148 |
| VAR00024 | 0.009 | 0.624 | 0.030 | 0.066 | -0.044 | 0.430 | 0.044 | -0.236 | -0.040 | 0.161 | 0.077 |
| VAR00025 | -0.162 | 0.713 | 0.236 | 0.012 | -0.105 | 0.290 | 0.165 | -0.010 | 0.006 | 0.201 | -0.047 |
| VAR00026 | 0.145 | -0.230 | -0.134 | -0.082 | 0.063 | 0.020 | 0.116 | 0.102 | 0.037 | -0.042 | -0.045 |
| VAR00027 | 0.116 | -0.231 | -0.197 | -0.111 | 0.019 | -0.040 | 0.110 | 0.213 | 0.063 | -0.071 | 0.045 |
| VAR00028 | 0.081 | -0.151 | 0.042 | -0.532 | -0.029 | -0.004 | 0.006 | 0.363 | -0.202 | -0.322 | -0.155 |
| VAR00029 | -0.064 | -0.257 | -0.349 | -0.318 | -0.308 | -0.060 | 0.241 | 1.091 | -0.252 | 0.153 | 0.103 |
| VAR00030 | -0.326 | -0.317 | 0.867 | -0.699 | 0.402 | -0.373 | -0.657 | 1.331 | 0.717 | -0.435 | -0.250 |
| VAR00031 | -0.691 | -0.261 | 0.447 | -0.004 | 0.512 | -0.152 | 0.022 | 1.295 | 0.613 | -0.059 | 0.165 |
| VAR00032 | 0.002 | 0.126 | 1.595 | 0.087 | 0.061 | 0.006 | -0.077 | 0.262 | 0.224 | 0.720 | -0.133 |
| VAR00033 | 0.911 | -0.283 | 0.641 | 0.241 | 0.076 | 0.236 | 0.475 | -0.036 | -0.066 | 0.359 | 0.247 |
| VAR00034 | 0.025 | 0.235 | 1.118 | -0.357 | 1.143 | -0.080 | 0.140 | 0.106 | -0.409 | 0.019 | 0.554 |
| VAR00035 | 0.302 | 0.202 | 0.659 | 0.100 | 1.402 | -0.121 | 0.414 | 0.145 | 0.068 | -0.043 | 0.386 |
| VAR00036 | -0.062 | 0.303 | -0.179 | 0.104 | -0.088 | 0.985 | 0.038 | 0.205 | -0.204 | 0.230 | 0.140 |
| VAR00037 | 0.079 | -0.069 | -0.433 | -0.135 | -0.133 | 0.029 | 0.104 | -0.054 | 0.111 | 0.038 | -0.033 |
| VAR00038 | -0.014 | 0.602 | 0.141 | 0.296 | 0.110 | 0.151 | 0.086 | -0.027 | -0.292 | 1.468 | -0.120 |
| VAR00039 | -0.099 | 0.181 | -0.072 | -0.029 | 0.005 | -0.018 | -0.172 | -0.055 | 0.167 | -0.118 | 0.035 |
| VAR00040 | 0.007 | 0.067 | 0.180 | 0.115 | 0.389 | 0.021 | 0.376 | 0.100 | 0.055 | -0.121 | 1.996 |
| VAR00041 | 0.068 | 0.009 | 0.619 | 1.272 | 0.303 | 0.244 | -0.080 | -0.048 | 0.478 | 0.252 | 0.019 |
| VAR00042 | -0.251 | 0.479 | -0.106 | 1.515 | 0.174 | 0.504 | 0.298 | -0.279 | -0.518 | 0.067 | 0.050 |
| VAR00043 | 0.060 | 0.716 | 0.183 | 1.270 | -0.175 | 0.035 | 0.574 | -0.070 | -0.372 | 0.028 | 0.041 |
| VAR00044 | 0.034 | 0.935 | 0.115 | 0.715 | 0.369 | 0.793 | 0.589 | -0.144 | -0.328 | 0.095 | -0.039 |

## THE EXTRACTED FACTORS

By principle component matrix we get total eleven factors and all the 44 variables are categorized according to the level of correlation they show. All the eleven factors are listed below:

Factor 1: Affiliations and Ranking (Variable)

1. University
2. Certified from National Board of Accreditation(NBA)
3. ISO Certification
4. Ranking given to the college
5. Golden History of the college
6. Reputation of the institute

Factor 2: Job Orientation (Variable)

1. Placement Cell
2. Recruiters
3. Package offered by the recruiters
4. Training Program
5. Technical events
6. Opportunity to handle live project

Factor 3: Financial factors (Variable)

1. fee structure
2. Loan facility
3. Scholarship & waiver scheme

Factor 4: Teaching Philosophy (Variables)

1. City environment
2. Academic qualification of Faculty Members
3. Teacher student ratio

Factor 5: Institutional Infrastructure (Variable)
1. Size of the building
2. Physical Facilities
3. Accessibility of all facilities
4. Canteen facilities

Factor 6: Physical Facility (Variable)
1. Workshops & Laboratory
2. Library resource
3. Fast search facility in library
4. E-Library
5. Wi-Fi zone
6. Smart classroom equipped with modern pedagogy

Factor 7: Environment (Variable)
1. College location
2. The city is attractive
3. The city having facility for further study

Factor 8: Food & Lodging (Variable)
1. Easy transportation facility (Connectivity with other area)
2. Accommodation
3. Safety

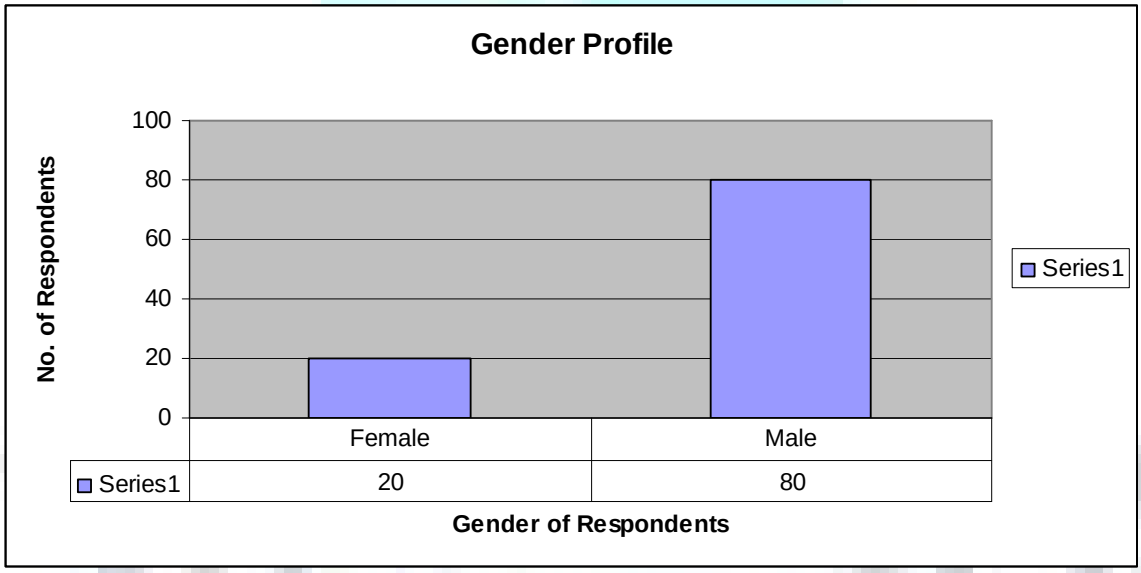
Factor 9: Orientation & Recognition (Variable)
1. Extracurricular activities organized by college
2. Technical events
3. Sponsorship to attend development program at university level
4. Stipend

Factor 10: Social Measures (Variable)
1. Existence of cultural activities
2. Existence of health care means
3. Transport facility

Factor 11: Word of mouth and observation (Variable)
1. Opinion of friends and family
2. Coaching institutes
3. Self visit to college
4. Alumni opinion
5. Event & exhibition
6. Publicity

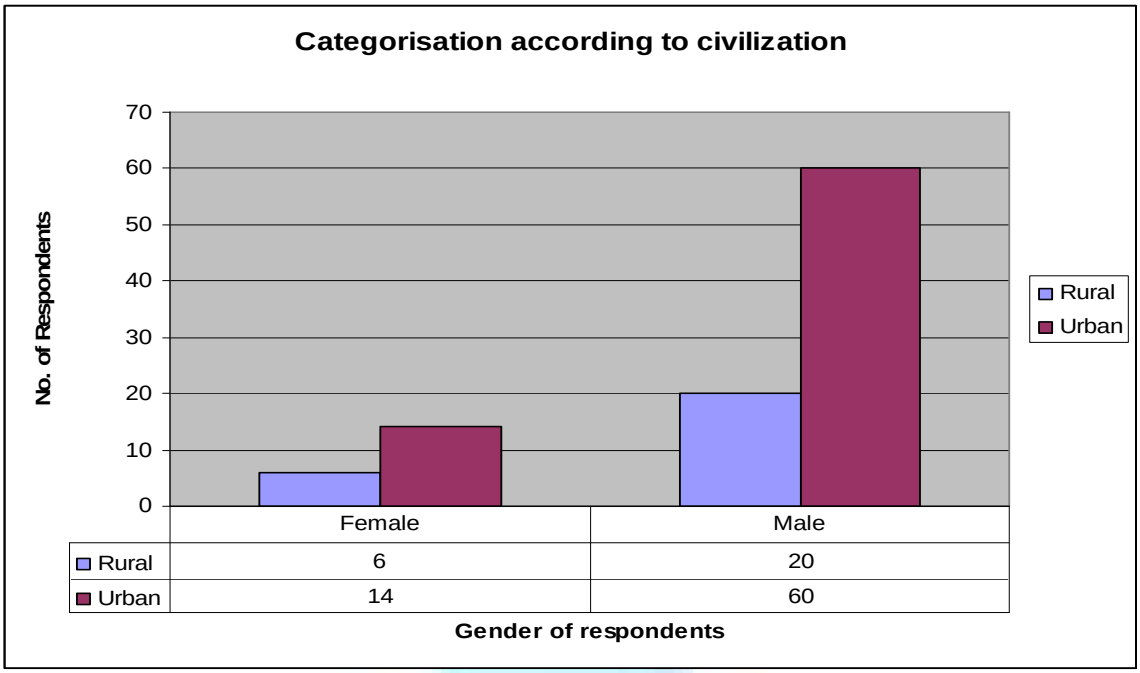
**RESULTS**

**FIGURE: 1**



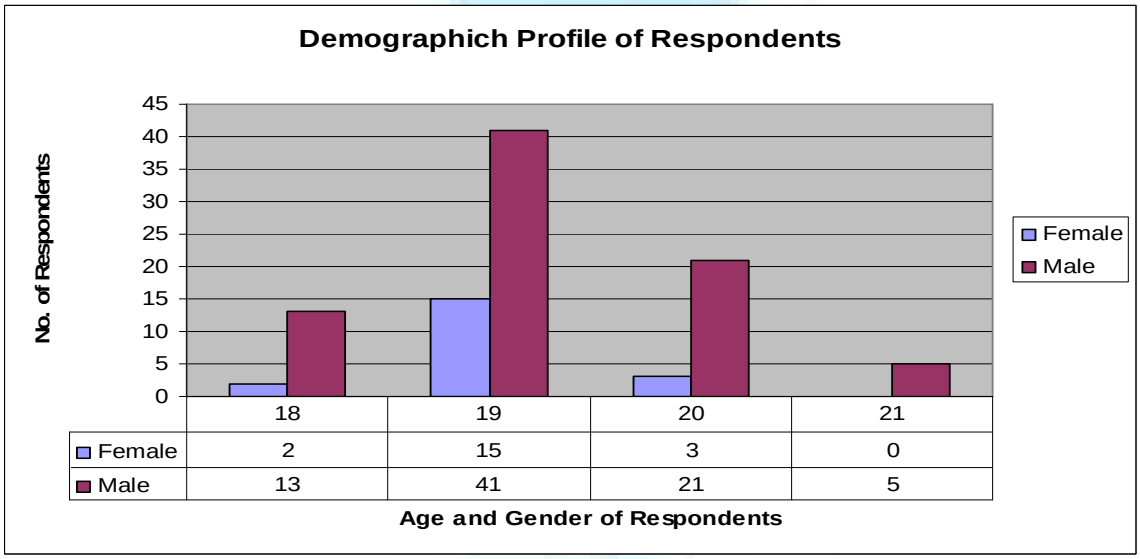

From the research point of view sample of 100 students was surveyed randomly. Out of which 20 respondents are females and 80 are males.

FIGURE: 2




From fig 2 it is concluded that out of 100 respondent 26 students belong to rural area Out of which 6 were females, remaining 74 students are from urban area.14 respondent were female and 60 were male.

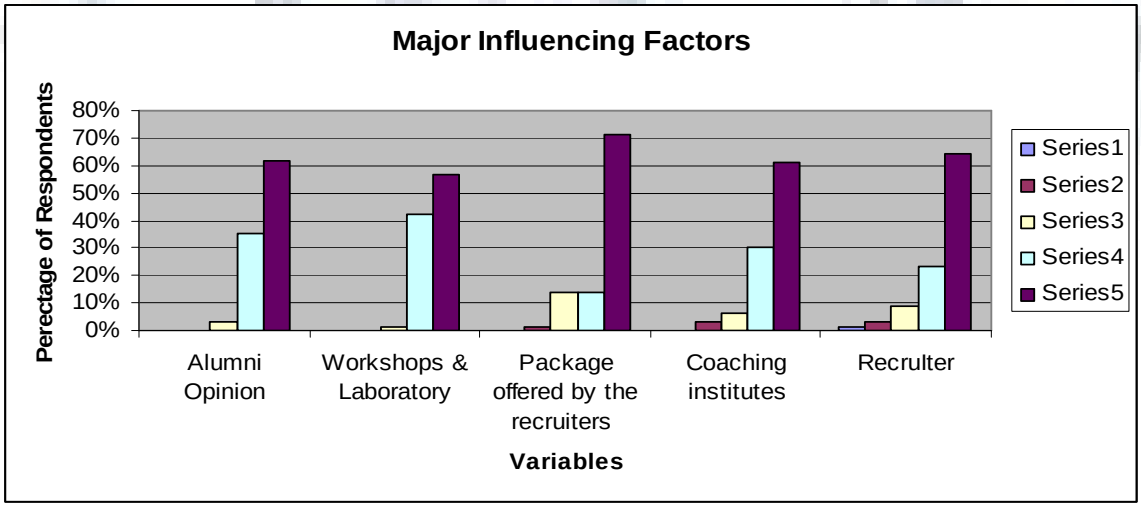
FIGURE: 3




From Fig: 1,2 &3 it is clear that maximum respondents are male from urban area and are of 18 years ,whereas least number of candidates are of 21 years.
To make research comprehensive we try to trace the perception of both male and female of different civilization having different demographic characteristics.

**INTERPRETATIONS**

FIGURE: 3



It is observed that 71% of the students gave high weightage to the packages received by the passed out student of the particular institute through campus selection. At second order recruiters are considered important hence 64% student preferred it. Due to the increase number of engineering colleges in the Madhya Pradesh potential candidates relies on the advices received from the Alumni students rather than other sources of information. In our research 62%of the respondent gave emphasis on Alumni and 61% and gave emphasis to coaching institutes where as 57% respondent were of opinion that facilities of Workshop and laboratory is an important aspect while considering Engineering college.

On contrast least consideration is given to the certification of ISO. It is found that students are not aware of accreditations especially in rural area.

## FINDINGS

Through the research it has been found that there are few factors which are considered vital by the students while they evaluate any engineering institute. A total of 44 variables were included in the study, which were categorized into eleven factors .The research findings are as follows:

- The entire Variable under the factor Job orientation has been weighted highest.
- Sources of information for Students are: Alumni, Opinion of friends and family, coaching institute, events and exhibition. They also gather information by visiting institutes (very rare).Among all these variables students relies most on opinion of Alumni.
- Infrastructural facilities of the institute are the next concerned area besides above mentioned factors.

## LIMITATION

With the data collected being of multiple choice, data may have some limitations in terms of responses. The following points served as limitations to this study.

1. The sample size is small and it is limited to 100 students, and it does not represent the entire universe.
2. The sample is surveyed in Indore (MP) and nearby sregion.
3. Study focuses only those students who have appeared in MP-PET.

## CONCLUSION

Initially work started with 44 factors which were further categorized into eleven factors from the research it is concluded that in today's scenario where there is mushrooming of engineering institute's, an attempt has been made to rank the variable contributing in decision making of the students for selection of institute. Considering all the sources it has been found that there are three major sources of information: Alumni opinion, coaching institutes, event and exhibition. Facts collected from Alumni and job orientation is valued as a major factor. This research helps Engineering institutes to market their services and also to the psychologist to read the brains of future technical leaders.

## REFERENCES


1. A Conceptual Framework Faith Proper, Student Perception of Community Colleges.
2. BEVINS, S., BRODIE, M. and BRODIE, E A study of UK secondary school students' perceptions of science and engineering Available from Sheffield Hallam University Research Archive(SHURA) at:http://shura.shu.ac.uk/956/
3. Chapman, D. (1981). A model of student college choice. Journal of Higher Education, 52(5), 490-505.
4. Chapman, D. (1984). Toward a theory of college choice: A model of college search and choice behavior. Alberta, Canada: University of Alberta Press.
5. Committee on Public Understanding of Engineering Messages, Changing the Conversation: Messages for Improving Public Understanding of Engineering, 164 pgs. National Academies Press, Washington, DC(2008)
6. E. Seymour and N. Hewitt, Talking about Leaving: Why Undergraduates Leave the Sciences, 444 pgs.Westview Press, Boulder (1997).
7. Ford, J. B, Joseph, M. & Joseph, B. (1999). Importance-performance analysis as a strategic tool for service marketers: The case of service quality perceptions of business students in New Zealand and the USA. The Journal of Services Marketing, 13(2), 171-186.
8. Garma, R. & Moy, T. Y. (2003). University Selection: A comparison.
9. H. Hartman, and M. Hartman, Leaving Engineering: Lessons from Rowan University's College of Engineering. J. Engineering Edu. 95, 49-61 (2006).
10. Joseph Sia Kee Ming 2010, Institutional Factors Influencing Students' College Choice Decision in Malaysia**:** International Journal of Business and Social Science. 1 No. 3;
11. Kalmer E. Stordahl Vol. 63, No. 5 (Jan., 1970), pp. 209-212 , Student Perceptions of Influences on College Choice, The Journal of Educational Research Published by: Taylor & Francis, Ltd.
12. N. Hewitt and E. Seymour, A long, discouraging climb. Prism: J.of the American Society for Engineering Edu. 1, 24-28 (1992).
13. National Academy of Engineering, Educating the Engineer of 2020: Adapting Engineering Education to the New Century, 208 pgs. National Academies Press, Washington, DC (2005).
14. National Academy of Engineering, The Engineer of 2020: Visions of Engineering in the New Century, 118pgs. National Academies Press, Washington, DC (2004).
15. National Science Foundation, Science and Engineering Indicators 2006. <http://www.nsf.gov/statistics/seind06/c2/c2h.htm> (May 14, 2009).
16. R. Felder, and R. Brent, Understanding Student Differences. J. Engineering Edu. 94, 57-72 (2005).
17. T. Hilton and V. Lee, Student interest and persistence in science: changes in the educational pipeline in the last decade. J. of Higher Edu., 59, 510-526 (1988).
18. Tapan Kumar Nayak & Manish Agrawal (2010) Marketing of Business school in India: A Factor analysis approach, International Journal of Management Research and Technology(IJMRT)
19. W. Massey, Science education in the United States: what the scientific community can do. J. Science, 245:915-921 (1989).

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