

An Analysis of Students Feedback of Management Institute through Kano Model

Dr. Jigna Trivedi*

Abstract

An educational institute plays a vital role in shaping the career of the students, which in turn proves to be an asset for the recruiters. Students enter the professional courses to make out their bright career with lot of expectations from institutes. Educational institutes are service providers who have to satisfy their customers (students) in order to keep their goodwill and prestige intact in the list of top business schools. Satisfied students are like a quick medium to spread awareness of the institute through their strong word of mouth. This paper is an attempt to collect feedback from the students of one of the business school and analyze it on the fundamental requirements advocated through Kano Model. As per Kano methodology the questionnaire was prepared, collected data was analyzed through Kano evaluation matrix and analyzed using extent of satisfaction and dissatisfaction. The requirements of students are classified under the head of must be, one dimensional and attractive. The data of 55 male students and 45 female students were collected, analyzed and classified under the various Kano categories. Most of the parameters were uniformly found on the must be requirement criteria for both male and female categories. Uniformity in preferences was not found with respect to one dimensional requirement among male and female students.

Keywords: Kano Model, Management Institute, Requirements **JEL Classification:** I2, I20, I21

Introduction

Professional courses are referred as training and grooming centers to transform the aspirant into asset in such way that they not only become multi-faceted personalities but also imbibe multi-skills. Despite the magnificent role associated to management institute, it is gradually losing its glory, which is clearly evident from the consistent downfall in the rate of

admission in the year 2012 and 2013. Existing management institutes are feeling the heat of stiff competition. Especially in Gujarat there is large number of institutes having common curriculum and common affiliation to the university. With large number of commonalities it is becoming very difficult for the institute to differentiate itself and satisfy the students.

*Associate Professor, Shri Jairambhai Patel Institute of Business Management and Computer Applications, Gandhinagar.

In such a cut throat competition it is vital that institutes understand the students' requirement and accordingly provide a conducive environment for the growth of their students, which will lead to positive spread of word of mouth. Management institute needs to practically digest the two factor Herzberg's theory in which there are certain set of factors which cause satisfaction (act as motivators), while a separate set of factors that cause dissatisfaction (act as hygiene factors). Motivators provide positive satisfaction whereas hygiene factors do not give positive satisfaction, though dissatisfaction results from their absence. Understanding of these factors will help the management institute to satisfy the students in better way.

Literature Review

In early 1900s the Indian National Congress placed emphasis on technical and vocational training. Nehruvian approach advocated education for all and linked it with industrial development, which acted as a cornerstone to maintain unity in a country, which was actually discriminated on various grounds of caste, creed, religion and wealth. Subsidized quality higher education through institutions like IIMs and IITs contributed to this approach (Lall, 2005).

Ghanchi (2011) underlined on meaningful education leading to gainful employment for youth. Naidu and Ahmad (2011) advocated pluralism and heterogeneity to be provided to the students under cross-cultural environment for better lateral and vertical learning, so that students are well-trained and easily employable. Kolaskar and Manda (2011) lamented on the poor quality of professional graduates who are often not acceptable to the industry. He strongly stressed that it was a necessity to improve the quality of education. Major reforms in education sector would be fruitful if gross enrolment ratio (GER) rises, faculty development for training students and increase in the models of public-private-partnership (PPP) model is encouraged (Singh and Ahmad, 2011). It is a pivotal role of education system to link research and innovation in the system so that students become employable (Naik, 2011). Technopreneurs, Intrapreneurs, Agripreneurs, Edupreneurs, Entrepreneurs, Social Entrepreneurs etc can be made through education. Bajpai and Pani (2011) pointed out that Indian higher education system exhibits quality gaps in terms of academic standards and infrastructure facilities. It was emphasized that Indian education system must payback to the country by providing skilled intellect. Tareen (2011) proposed optimum use of existing land and infrastructure to reach

critical mass of students, abolition of affiliation system for strong autonomy, creation of cluster of multi-campus universities for growth and compulsory accreditation for quality education, should be incorporated in XIIth plan. Motwani (2011) highlighted that academicians is required to be constant learner and adapter to open courseware sites, as technology leads to multi-model learning. Growth of online, professional and physical universities in the area of Science, Technology, Engineering and Mathematics and Management (STEM) has provided society with a pool of skilled manpower (Ramnarayan, 2011).

Saikia (2011) distinguished between a commerce and management course. A commerce course is a liberal and traditional course (targeting service gaps fulfillment) whereas a management course is a professional course (catering to business needs). Role of true education must be creation of awareness of self and surroundings, discovering things without boundaries, trusting ones own judgment and act with confidence (Ramanathan, 2006). Parthasarathy (2009) made a remarkable comment that educated people are like human capital, which yields returns. Bhola and Nalawade's (2013) only empirical paper was found in the area of Kano based analysis of students' preference to management institutes

affiliated to Shivaji University. No empirical study was found with respect to Gujarat region. This paper is an attempt to address this research gap.

Research Methodology

The research objective mainly consisted of the following:

1. To appreciated the role of management institute in shaping students.
2. To comprehend the Kano model of customer satisfaction.
3. To explore the factors which influence both male and female students satisfaction for the MBA course and thereby classify the factors as M, O, A, or I for Kano analysis.

The diagnostic research design was adopted for the study. It was a cross sectional survey in design which was conclusive in nature. Total number of students in the selected college was 255. Non-probability judgmental sampling technique was used to select a sample size of total of 120. The useable response was 100. Out of the zeroed in sample size of 100, 55 students were male respondent and 45 students were female respondent. For better results 50 students (irrespective of gender) each were selected from first year and second year. The sampling area and extent consisted of students of a college of Gandhinagar city who were pursuing Masters of Business Administration

(MBA) course. The sampling unit i.e. college based in Gandhinagar approved by AICTE was selected for the study. Sampling element were the students of first year and second year, who were pursuing MBA was selected for the study. The time factor for entire survey constituted from 1st January, 2014 to 28th February March, 2014. A structured questionnaire was prepared to elicit primary, quantitative information. The questionnaire was divided into three parts viz., demographic details, evaluation of Kano requirements and overall rating of facilities and student's recommendation to spread the word of mouth of the institute in their close net circle.

The five broad head for Kano parameters were mainly infrastructure and institute, canteen and mess facility, library, other activities or facility and faculty were used for study. In each head 11, 4, 7, 9 and 16 variables respectively were tested in the form of functional and dysfunctional questions set. Total 47 variables were tested for Kano Analysis. The questionnaire was prepared using conventional primary scales of measurement as well as Kano model suggested response aspect. Non-comparative itemized rating scale like likert scale was also used in the preparation of questionnaire. Dichotomous type, nominal based, ratio based and open

ended questions were incorporated in the questionnaire to seek valuable answers from respondents.

Based on the respondent's capacity to understand the questionnaire, personally or self administered survey was adopted in which respondent was handed-over the questionnaire to fill the details. Various online and offline secondary data sources like newspapers, internet, magazines, books and journals were used for data collection. Collected data was edited, coded, analyzed, interpreted and presented using frequency distribution tables. At univariate level descriptive statistics like mean (X), median (M), mode (Z), standard deviation (SD), frequency tabulation and percentage (%) were used for analysis. The collected data was processed for analysis by editing, coding and entering it into computer software- Statistical Package for Social Scientists (SPSS 19.0). At multivariate level inferential statistics was applied. Various test like Independent T-test and Fisher's Exact Test was applied. Tabulated data was evaluated through Kano Evaluation Matrix. Extent of satisfaction and Extent of dissatisfaction was computed for better interpretation of the collected data.

The major limitation of the study is the small sample size. For future study more number of students could be targeted for sample size. More number of institutes

could be identified for survey. With more number of institutes, quota sampling method could be adopted for sample

selection, for the purpose of inter-institute comparison. Larger sample size would be able to give better results.

Conceptual Framework of Kano Model

The Kano model of customer satisfaction was propounded by The Center of Quality Management Journal in the year 1993. The model describes the three core requirements and one additional

requirement viz; Must be requirement (M), One dimensional requirement (O), Attractive requirement (A) and Indifferent requirement (I) (Bhola & Nalawade, 2013). The description of the requirements is mentioned in the table 1.

Table 1 Requirements of Kano Model

| Requirements | If requirement is fulfilled | If requirement is not fulfilled | Remarks |
|---------------------------------|------------------------------------|---|---|
| Must be requirement (M) | It will not increase satisfaction. | It will dissatisfy the customers. | It is not explicitly demanded, but when it is fulfilled it does not lead to satisfaction as customers believe that it should be inherent in the product. It is implied, self-evident and obvious. |
| One dimensional requirement (O) | It will lead to satisfaction. | It will lead to dissatisfaction. | The level of satisfaction is proportional to the level of fulfillment. It is explicitly demanded. It is articulated, specified, measurable and technical. |
| Attractive requirement (A) | It leads to more satisfaction. | It does not lead to the feeling of dissatisfaction. | Such requirement is neither stated nor expected, but if it is fulfilled it offers more than proportional satisfaction. It is customer-tailored and causes delight. |
| Indifferent requirement (I) | It does not lead to satisfaction. | It does not lead to dissatisfaction. | It is a least bothered requirement. |

Adapted from: (Bhola & Nalawade, 2013) and (Sauerwein, Bailom, Matzler, & Hinterhuber, 1996)

Thus the evaluation rule states the following importance of requirement $M > O > A > I$. Strategic implication connotes that firstly fulfill all must be requirement, secondly be competitive with regard to the one-dimensional requirement and thirdly

stand out from the rest in regards to attractive requirements (Sauerwein, Bailom, Matzler, & Hinterhuber, 1996).

The Kano questionnaire consists of a pair of questions which talks about the parameters or attributes of a product.

The set of question can be bifurcated into functional question which has a positive tone and a dysfunctional question which as a negative tone. Respondent is required to select any one response among the given five alternatives of responses viz, I like it that way, It must be that way, I am neutral, I can live with it and I dislike it. The response is to be chosen for functional as

well as dysfunctional questions. The responses of both pair of question is mutually correlated and tabulated to determine the Kano requirement like Attractive (A), Must be (M), One dimensional (O), Indifferent (I), Questionable (Q) and Reserve (R). The sample of the same is given in table 2.

Table 2 Sample of Kano Question

| Requirement | Response | Dysfunctional Question (Negative Tone) | | | | |
|-------------------------------------|-----------------------------|--|---------------------|--------------|-----------------------------|-----------------------|
| | | I like it that way | It must be that way | I am neutral | I can live with it that way | I dislike it that way |
| Functional Question (Positive Tone) | I like it that way | Q | A | A | A | O |
| | It must be that way | R | I | I | I | M |
| | I am neutral | R | I | I | I | M |
| | I can live with it that way | R | I | I | I | M |
| | I dislike it that way | R | R | R | R | Q |

Adapted from: (Bhola & Nalawade, 2013)

Data Analysis and Discussion

The data analysis is divided into three parts viz., analysis of entire samples (table 3), followed by analysis of male students (table 4) and analysis of female students (table 5). Every table highlights the category of response, maximum response for any Kano attribute, Maximum % of that Kano attribute, extent of satisfaction

and extent of dissatisfaction. Each analysis is explained at length in the forthcoming sections.

Data Analysis and Discussion of Students of Management Institute

The tabulated and computed data analysis and discussion of students of management institute is mentioned in table 3.

Table 3 Kano Parameter Analysis for Total Students

| Sr. No. | Parameters | Category | Maximum response for any Kano attribute | Maximum % of that Kano attribute | Extent of Satisfaction | Extent of Dissatisfaction |
|---------|---|----------|---|----------------------------------|------------------------|---------------------------|
| 1 | Location | O | 39 | 39 | 0.60 | -0.57 |
| 2 | Hostel Facility | I | 40 | 40 | 0.23 | -0.55 |
| 3 | Furnished Classrooms | O | 43 | 43 | 0.59 | -0.65 |
| 4 | Furnished Seminar Hall | O | 36 | 36 | 0.50 | -0.64 |
| 5 | Furnished Auditorium | I | 42 | 42 | 0.24 | -0.42 |
| 6 | Vehicle Parking Space | O | 38 | 38 | 0.63 | -0.63 |
| 7 | Reading Room | M | 32 | 32 | 0.41 | -0.62 |
| 8 | Internet Speed | M | 44 | 44 | 0.23 | -0.67 |
| 9 | Wifi Campus | M | 47 | 47 | 0.22 | -0.69 |
| 10 | Computer Lab | O | 37 | 37 | 0.53 | -0.68 |
| 11 | Software | M | 36 | 36 | 0.28 | -0.55 |
| 12 | Variety Food | M | 37 | 37 | 0.31 | -0.57 |
| 13 | Reasonable Price | M | 42 | 42 | 0.38 | -0.73 |
| 14 | Good Quality Food Items | M | 46 | 46 | 0.30 | -0.77 |
| 15 | Hygiene & Sanitation | M | 43 | 43 | 0.25 | -0.67 |
| 16 | Availability of Books | O,M | 40 | 40 | 0.52 | -0.83 |
| 17 | Availability of Newspaper, Magazines | O | 44 | 44 | 0.61 | -0.66 |
| 18 | Behaviour of Library Staff | M | 39 | 39 | 0.38 | -0.72 |
| 19 | Any Time Issue and Return | M | 42 | 42 | 0.32 | -0.65 |
| 20 | Issue of More Books at a Time | M | 39 | 39 | 0.33 | -0.64 |
| 21 | Software and Database | M | 35 | 35 | 0.31 | -0.53 |
| 22 | Purchase and Quick Issue of New Books | M | 43 | 43 | 0.33 | -0.70 |
| 23 | Placement Activities | M | 38 | 38 | 0.42 | -0.74 |
| 24 | Campus Interview | M | 43 | 43 | 0.41 | -0.76 |
| 25 | Student's Involvement in Placement Cell | M | 34 | 34 | 0.41 | -0.63 |
| 26 | Industrial Visits | M | 49 | 49 | 0.25 | -0.69 |
| 27 | Management Events | M | 37 | 37 | 0.30 | -0.59 |
| 28 | Fees in Installment | M | 30 | 30 | 0.40 | -0.56 |
| 29 | Interview Preparation | M | 43 | 43 | 0.29 | -0.64 |
| 30 | Communication, Personality | M | 45 | 45 | 0.34 | -0.68 |

| | | | | | | |
|----|---|---|----|----|------|-------|
| | Development, Mock Interview etc | | | | | |
| 31 | Seminars and Guest Lectures | I | 33 | 33 | 0.40 | -0.46 |
| 32 | Regular Grass-root Level Teaching | O | 38 | 38 | 0.49 | -0.72 |
| 33 | Punctuality in Classes | O | 36 | 36 | 0.52 | -0.68 |
| 34 | Responding to Student's Queries | O | 48 | 48 | 0.58 | -0.81 |
| 35 | Encouragement in Class and Other Activities | O | 38 | 38 | 0.56 | -0.65 |
| 36 | Use of Adequate Effective Teaching Aids | O | 32 | 32 | 0.49 | -0.62 |
| 37 | Relation to Practical and GK Aspects | O | 30 | 30 | 0.47 | -0.57 |
| 38 | Help in Project Work | O | 39 | 39 | 0.61 | -0.65 |
| 39 | In-depth Subject Knowledge | M | 39 | 39 | 0.35 | -0.68 |
| 40 | Practical based Subject knowledge | M | 42 | 42 | 0.36 | -0.73 |
| 41 | 100% Syllabus Completion | M | 39 | 39 | 0.41 | -0.71 |
| 42 | Involvement in Case Studies and Projects | O | 32 | 32 | 0.55 | -0.59 |
| 43 | Faculties Dedication, Hardworking and Subject Command | M | 32 | 32 | 0.45 | -0.65 |
| 44 | Assignments and Its Solution | M | 31 | 31 | 0.46 | -0.64 |
| 45 | Writing of Solution of University Papers | I | 32 | 32 | 0.34 | -0.46 |
| 46 | Faculty's Fluency, Clarity and Correct Communication | M | 35 | 35 | 0.47 | -0.69 |
| 47 | Gossip during Teaching | R | 46 | 46 | 0.28 | -0.28 |

(Source: Primary Data's Excel Output)

The table indicated that majority of the variables, it is a must be requirement. Reading room, good internet speed, Wifi campus, software, quality food variety at reasonable price is must be requirement under infrastructure and canteen parameters. With respect to library students' must be requirement are good

behavior of staff, any time any number of issue return and purchase and quick issue of new books. Fully fledged placement activities, campus interview, industrial visits, management events and assistance in interview preparation are looked upon as a must be requirement.

Student strongly insisted that faculties must be quite knowledgeable contextually as well as practically, they must complete 100% syllabus on timely basis, must be fluent in communication, must provide solution to assignments and must be dedicated to duty. The more facilities or more expenses on must be requirement will only lead to a state of 'not dissatisfied' and it will not increase satisfaction. Absence of must be requirement will instantly make students dissonant. One dimensional requirement which depicts linear relationship with satisfaction is location, furnished classroom, seminar hall, vehicle parking space, computer laboratory and books availability. With respect to faculties students expect that faculties must teach from grassroots level, they should be punctual, respond to student's queries, encourage them for co-curricular and extracurricular activities, use effective teaching pedagogy, relate general knowledge and practical knowledge to subject and held in project work and case-studies. Students will be highly satisfied if the institution fulfills its one-dimensional requirement.

None of the variables were found in the attractive requirement categories, which points that positive differentiation in satisfaction would come up if the institute

just focuses on providing must be requirement (the primary variables) properly and makes a sincere attempt to fulfill one dimensional requirement (secondary variable). It can also be inferred that students are aware of the necessities required for their growth and their expectation is high from the management institute. Moreover, it also points out that management institute under study tries its level best to serve the requirements of students. A cross comparison of this institute with other institute may match the variables and highlight the list of attractive requirements which are already provided by institute and students consider such (attractive) requirements as one of the part and parcel of product package of MBA course.

Students were found indifferent to hostel facility, furnished auditorium, seminar and guest lectures, their writing of solution to university papers. It clearly depicts that the presence or absence of these set of variables will have negligible impact on the satisfaction of the students. Thus, institute need not emphasize on the providing of these requirements.

A high positive value of extent of satisfaction indicates that student's satisfaction will increase manifold when the requirements are fulfilled. Location, furnished classroom, availability of

newspaper, magazines, response to student's queries and help in project work etc has high positive extent of satisfaction. A low positive value of extent of satisfaction indicates that satisfaction of students will be less increased due to fulfilling the requirements. Variables found in the area of low positive value of extent of satisfaction are hostel facility, furnished auditorium, Wifi campus and organizing of industrial visit etc.

A greater value of dissatisfaction extent was found in availability of books, responding to student's queries, good quality food items, campus interview and placement activities etc, it indicates that student's satisfaction level will decrease drastically if these requirements are not

fulfilled. The less value of extent of dissatisfaction explains that as the level of fulfillment of these parameters decrease there will be less increase in student's dissatisfaction. If auditorium is not furnished, seminars and guest lectures are not organized or students are not given the practice of writing of solution to university papers then there will be less increase in their dissatisfaction.

Data Analysis and Discussion of Male Students of Management Institute

The tabulated and computed data analysis and discussion of 55 male students of management institute is mentioned in table 4.

Table 4 Kano Parameter Analysis for Male Students

| Sr. No. | Parameters | Category | Maximum response for any Kano attribute | Maximum % of that Kano attribute | Extent of Satisfaction | Extent of Dissatisfaction |
|---------|------------------------|----------|---|----------------------------------|------------------------|---------------------------|
| 1 | Location | O | 22 | 40.00 | 0.64 | -0.60 |
| 2 | Hostel Facility | M | 20 | 36.36 | 0.30 | -0.64 |
| 3 | Furnished Classrooms | O | 27 | 49.09 | 0.63 | -0.65 |
| 4 | Furnished Seminar Hall | O & I | 17 | 30.91 | 0.44 | -0.56 |
| 5 | Furnished Auditorium | I | 27 | 49.09 | 0.27 | -0.33 |
| 6 | Vehicle Parking Space | O | 23 | 41.82 | 0.66 | -0.64 |
| 7 | Reading Room | O | 15 | 27.27 | 0.45 | -0.59 |
| 8 | Internet Speed | M | 22 | 40.00 | 0.26 | -0.66 |
| 9 | Wifi Campus | M | 20 | 36.36 | 0.32 | -0.61 |
| 10 | Computer Lab | O | 20 | 36.36 | 0.60 | -0.60 |
| 11 | Software | M&I | 17 | 30.91 | 0.32 | -0.48 |
| 12 | Variety Food | M | 20 | 36.36 | 0.39 | -0.65 |

| | | | | | | |
|----|--|---|----|-------|------|-------|
| 13 | Reasonable Price | M | 24 | 43.64 | 0.34 | -0.72 |
| 14 | Good Quality Food Items | M | 28 | 50.91 | 0.25 | -0.76 |
| 15 | Hygiene & Sanitation | M | 21 | 38.18 | 0.21 | -0.60 |
| 16 | Availability of Books | O | 21 | 38.18 | 0.55 | -0.80 |
| 17 | Availability of Newspaper, Magazines | O | 26 | 47.27 | 0.67 | -0.61 |
| 18 | Behaviour of Library Staff | O | 19 | 34.55 | 0.46 | -0.70 |
| 19 | Any Time Issue and Return | M | 21 | 38.18 | 0.35 | -0.62 |
| 20 | Issue of More Books at a Time | O | 17 | 30.91 | 0.41 | -0.63 |
| 21 | Software and Database | M | 17 | 30.91 | 0.37 | -0.54 |
| 22 | Purchase and Quick Issue of New Books | M | 19 | 34.55 | 0.40 | -0.65 |
| 23 | Placement Activities | M | 21 | 38.18 | 0.43 | -0.75 |
| 24 | Campus Interview | M | 24 | 43.64 | 0.42 | -0.81 |
| 25 | Student's Involvement in Placement Cell | M | 17 | 30.91 | 0.45 | -0.60 |
| 26 | Industrial Visits | M | 22 | 40.00 | 0.29 | -0.61 |
| 27 | Management Events | M | 18 | 32.73 | 0.39 | -0.61 |
| 28 | Fees in Installment | M | 17 | 30.91 | 0.40 | -0.58 |
| 29 | Interview Preparation | M | 20 | 36.36 | 0.43 | -0.65 |
| 30 | Communication, Personality Development, Mock Interview etc | M | 20 | 36.36 | 0.45 | -0.65 |
| 31 | Seminars and Guest Lectures | I | 17 | 30.91 | 0.44 | -0.48 |
| 32 | Regular Grass-root Level Teaching | O | 21 | 38.18 | 0.57 | -0.60 |
| 33 | Punctuality in Classes | O | 16 | 29.09 | 0.53 | -0.55 |
| 34 | Responding to Student's Queries | O | 27 | 49.09 | 0.66 | -0.75 |
| 35 | Encouragement | O | 22 | 40.00 | 0.58 | -0.69 |

| | | | | | | |
|----|---|-----|----|-------|------|-------|
| | in Class and Other Activities | | | | | |
| 36 | Use of Adequate Effective Teaching Aids | O&M | 17 | 30.91 | 0.44 | -0.65 |
| 37 | Relation to Practical and GK Aspects | I | 18 | 32.73 | 0.44 | -0.54 |
| 38 | Help in Project Work | O | 21 | 38.18 | 0.69 | -0.56 |
| 39 | In-depth Subject Knowledge | M | 17 | 30.91 | 0.35 | -0.57 |
| 40 | Practical based Subject knowledge | M | 21 | 38.18 | 0.40 | -0.70 |
| 41 | 100% Syllabus Completion | M | 18 | 32.73 | 0.46 | -0.65 |
| 42 | Involvement in Case Studies and Projects | O | 18 | 32.73 | 0.57 | -0.55 |
| 43 | Faculties Dedication, Hardworking and Subject Command | O | 18 | 32.73 | 0.50 | -0.63 |
| 44 | Assignments and Its Solution | O | 15 | 27.27 | 0.43 | -0.63 |
| 45 | Writing of Solution of University Papers | M | 15 | 27.27 | 0.37 | -0.53 |
| 46 | Faculty's Fluency, Clarity and Correct Communication | O | 17 | 30.91 | 0.53 | -0.62 |
| 47 | Gossip during Teaching | I | 22 | 40.00 | 0.31 | -0.25 |

(Source: Primary Data's Excel Output)

The highlighted category of Kano response provided by male students indicates the common consensus with the total students. The male students significantly differ on the ten variables. The must requirements as stated by male students are hostel facility and emphasis on writing of solution to university papers. One

dimensional requirement as stated by male students are reading room, good behavior of library staff, issue of more books at a time, faculties commitment and subject command, providing of solutions to assignments and faculty's fluency, correctness and clarity in communication.

Male students are indifferent to the faculties making an attempt to relate practical and GK aspects to subject and gossip during teaching.

Faculties help in project work, response to students queries, availability of newspaper, magazines and proper vehicle parking space etc has high positive extent of satisfaction, which indicates that fulfillment of these requirements will make male students more satisfied. If the auditorium is furnished, or good internet speed is provided or good quality of food items is served or industrial visit is organized etc then it will not tremendously increase the students' satisfaction as the extent of satisfaction value is low.

A higher negative value of dissatisfaction will lead to significant decrease in

satisfaction level if institute does not fulfill the requirements of availability of books, behavior of library staff, campus interview, response to students' queries and good quality food items etc. A lower negative dissatisfaction value depicts that as the level of fulfillment of these parameters (like furnished auditorium etc) decrease, there will be less increase in student dissatisfaction.

Data Analysis and Discussion of Female Students of Management Institute

The tabulated and computed data analysis and discussion of 45 female students of management institute is mentioned in table 5.

Table 5 Kano Parameter Analysis for Female Students

| Sr. No | Parameters | Category | Maximum response for any Kano attribute | Maximum % of that Kano attribute | Extent of Satisfaction | Extent of Dissatisfaction |
|--------|------------------------|----------|---|----------------------------------|------------------------|---------------------------|
| 1 | Location | O | 17 | 37.78 | 0.56 | -0.53 |
| 2 | Hostel Facility | I | 23 | 51.11 | 0.14 | -0.43 |
| 3 | Furnished Classrooms | O | 16 | 35.56 | 0.55 | -0.64 |
| 4 | Furnished Seminar Hall | O | 19 | 42.22 | 0.57 | -0.75 |
| 5 | Furnished Auditorium | M | 17 | 37.78 | 0.20 | -0.53 |
| 6 | Vehicle Parking Space | O | 15 | 33.33 | 0.60 | -0.62 |
| 7 | Reading Room | M | 18 | 40.00 | 0.36 | -0.64 |
| 8 | Internet Speed | M | 22 | 48.89 | 0.20 | -0.68 |
| 9 | Wifi Campus | M | 27 | 60.00 | 0.10 | -0.77 |
| 10 | Computer Lab | O&M | 17 | 37.78 | 0.44 | -0.79 |
| 11 | Software | M | 19 | 42.22 | 0.24 | -0.62 |
| 12 | Variety Food | I | 18 | 40.00 | 0.20 | -0.48 |
| 13 | Reasonable Price | M | 18 | 40.00 | 0.43 | -0.74 |

| | | | | | | |
|----|--|-----|----|-------|------|-------|
| 14 | Good Quality Food Items | M | 18 | 40.00 | 0.35 | -0.78 |
| 15 | Hygiene & Sanitation | M | 22 | 48.89 | 0.30 | -0.75 |
| 16 | Availability of Books | M | 20 | 44.44 | 0.49 | -0.87 |
| 17 | Availability of Newspaper, Magazines | O | 18 | 40.00 | 0.55 | -0.73 |
| 18 | Behaviour of Library Staff | M | 23 | 51.11 | 0.29 | -0.74 |
| 19 | Any Time Issue and Return | M | 21 | 46.67 | 0.29 | -0.69 |
| 20 | Issue of More Books at a Time | M | 24 | 53.33 | 0.23 | -0.66 |
| 21 | Software and Database | M | 18 | 40.00 | 0.25 | -0.52 |
| 22 | Purchase and Quick Issue of New Books | M | 24 | 53.33 | 0.24 | -0.76 |
| 23 | Placement Activities | M | 17 | 37.78 | 0.41 | -0.73 |
| 24 | Campus Interview | M | 19 | 42.22 | 0.40 | -0.70 |
| 25 | Student's Involvement in Placement Cell | M | 17 | 37.78 | 0.36 | -0.67 |
| 26 | Industrial Visits | M | 27 | 60.00 | 0.19 | -0.79 |
| 27 | Management Events | M | 19 | 42.22 | 0.19 | -0.56 |
| 28 | Fees in Installment | M | 13 | 28.89 | 0.39 | -0.54 |
| 29 | Interview Preparation | M | 23 | 51.11 | 0.12 | -0.62 |
| 30 | Communication, Personality Development, Mock Interview etc | M | 25 | 55.56 | 0.20 | -0.70 |
| 31 | Seminars and Guest Lectures | M&I | 29 | 64.44 | 0.34 | -0.51 |
| 32 | Regular Grass-root Level Teaching | M | 22 | 48.89 | 0.40 | -0.87 |
| 33 | Punctuality in Classes | O | 20 | 44.44 | 0.51 | -0.84 |
| 34 | Responding to Student's Queries | O | 21 | 46.67 | 0.49 | -0.87 |
| 35 | Encouragement in Class and Other Activities | O | 16 | 35.56 | 0.55 | -0.59 |
| 36 | Use of Adequate Effective Teaching Aids | O | 15 | 33.33 | 0.56 | -0.58 |
| 37 | Relation to Practical and GK Aspects | O | 13 | 28.89 | 0.51 | -0.61 |
| 38 | Help in Project Work | O | 18 | 40.00 | 0.50 | -0.76 |
| 39 | In-depth Subject Knowledge | M | 22 | 48.89 | 0.36 | -0.80 |
| 40 | Practical based Subject knowledge | M | 21 | 46.67 | 0.32 | -0.77 |
| 41 | 100% Syllabus Completion | M | 21 | 46.67 | 0.35 | -0.77 |
| 42 | Involvement in Case Studies and Projects | O | 14 | 31.11 | 0.53 | -0.63 |

| | | | | | | |
|----|---|---|----|-------|------|-------|
| 43 | Faculties Dedication, Hardworking and Subject Command | M | 17 | 37.78 | 0.40 | -0.67 |
| 44 | Assignments and Its Solution | M | 17 | 37.78 | 0.48 | -0.66 |
| 45 | Writing of Solution of University Papers | I | 16 | 35.56 | 0.30 | -0.36 |
| 46 | Faculty's Fluency, Clarity and Correct Communication | M | 19 | 42.22 | 0.41 | -0.77 |
| 47 | Gossip during Teaching | R | 27 | 60.00 | 0.24 | -0.35 |

(Source: Primary Data's Excel Output)

The highlighted category of Kano response provided by female students indicates the common consensus with the total students. The female students significantly differ on the four variables. The must requirements as stated by female students are furnished auditorium, availability of books and regular grassroots level teaching by faculties. Female students are indifferent to the variety of food aspect. It was noticed that a considerable difference between male and female students was found on the opinion of gossip during teaching. Female

students have reverse opinion on gossip while teaching, they insist on no gossip by faculties while teaching, i.e. only subject talk was highly emphasized by them.

Comparison of Mean Value of Response for Functional and Dysfunctional Questions

Mean values of response of male and female students towards functional and dysfunctional questions have been tabulated in table 6.

Table 6 Mean and SD Values of Gender Based Response for Functional and Dysfunctional Questions

| Sr. No. | Parameter | Mean | SD |
|---------|--|------|------|
| 1 | Functional question mean for male | 1.90 | 0.96 |
| 2 | Functional question mean for female | 1.97 | 0.91 |
| 3 | Dysfunctional question mean for male | 4.20 | 1.09 |
| 4 | Dysfunctional question mean for female | 4.31 | 1.00 |

(Source: Primary Data's SPSS Output)

It may be inferred that mean response of male and female students' towards functional and dysfunctional questions do not differ significantly. It was further observed that the SD for male and female

response towards the functional and dysfunctional question was 1, which indicated a higher level of consensus in their response.

Hypothesis Testing

A hypothesis was tested to check the significant difference between the two types of requirements amongst gender. Independent sample t-test was applied for the analysis. H_{01} : Male and Female

students do not significantly differ on the one dimensional requirements and must be requirements. H_{11} : Male and Female students significantly differ on the one dimensional requirements and must be requirements.

Table 7 Independent Sample T-Test for Requirements and Gender

| Parameter | Gender | | Levene's Test for Equality of Variances | | t-test of Equality of Means | | |
|-----------------|--------|--------|---|------|-----------------------------|----|------|
| | Male | Female | F | Sig. | T | df | Sig. |
| One Dimensional | 20 | 17 | 1.26 | 0.27 | 1.82 | 35 | 0.08 |
| Must Be | 23 | 23 | 4.42 | 0.04 | 2.30 | 44 | 0.03 |

(Source: Primary Data's SPSS Output)

It may be inferred that Leven's test for equality of variance for one dimensional requirement was found to be insignificant, as the p-value > significant value and it was found to be statistically significant for must be requirement where the p-value < significant value. With respect to t-test of equality of means, it was noticed that with respect of one dimensional requirement H_{01} was not rejected as $0.08 < 0.05$, which meant that male and female students do not significantly differ on the one dimensional requirements. H_{01} stood rejected for must be requirement ($0.03 < 0.05$) indicating that male and

female students significantly differ on the must be requirements.

A dual hypothesis was tested to check the significant difference between the various parameters amongst gender and respective year of students. Independent sample t-test was applied for the analysis. H_{02} : Male and Female students do not significantly differ in their overall requirements. H_{12} : Male and Female students significantly differ in their overall requirements. H_{03} : First Year and Second Year students do not significantly differ in their overall requirements. H_{13} : First Year and Second Year students significantly differ in their overall requirements.

Table 8 Independent Sample T-Test of Equality of Means for Overall Requirements and Gender

| Parameters | Sig. (2-tailed) | | Parameters | Sig. (2-tailed) | |
|-----------------------------------|-----------------|------------|--|-----------------|------------|
| | Gender Based | Year Based | | Gender Based | Year Based |
| Infrastructure of Institute | 0.90 | 0.76 | Mess Facility | 0.75 | 0.30 |
| Library Facility | 0.38 | 0.47 | Computer Laboratory | 0.31 | 0.39 |
| Faculties | 0.42 | 0.34 | Cooperation from Director and Management | 0.28 | 0.10 |
| Canteen Facility | 0.00 | 0.93 | Cooperation from Fellow Students | 0.27 | 0.62 |
| Administrative Staff of Institute | 0.90 | 0.69 | Placements Effort Carried Out by Institute | 0.09 | 0.15 |

(Source: Primary Data's SPSS Output)

In all the above parameters Leven's test was found to be insignificant, as the p-value > significant value. The t-test of equality of means revealed that the p-value > 0.05 in all cases except canteen facility. From this it may be inferred that male and female students do not significantly differ in their overall requirements except the canteen facility. It was noticed that with respect to year of students the p-value > 0.05, which meant that, the first year and second year students did not significantly differ in their overall requirements from institute.

A hypothesis was framed to check the association between recommendation and spreading awareness of institute. Fisher's Exact Test was applied to test the hypothesis. H_{04} : There is no association between recommendation of institute and spreading awareness of institute amongst

close-net circles. H_{14} : There is an association between recommendation of institute and spreading awareness of institute amongst close-net circles. At the FISHER (N=100), $p=0.00$, it may be inferred that there is an association between recommendation of institute and spreading awareness of institute amongst close-net circles. The Phi-value was found to be $0.75 > 0.5$ which indicated strong association. If the students are satisfied then only they would play an active role for positively spreading the word of mouth of institute. Dissonant students would spread a negative word of mouth which may tarnish the image of the institute.

Findings and Suggestion

With respect to faculties both the gender students have stated their maximum response for a must be requirement, of

practical based subject knowledge of faculties (42%) and in-depth subject knowledge with the responsibility of 100% syllabus completion (39%). One dimensional requirement which entices both the genders is faculties responding to students queries (48%) and their sincere guidance in project work (39%). Maximum response towards must be variable like industrial visit (49%) and communication and personality development and mock interview practice (45%) were emphasized by male and female students. Students insist on must be factor of purchase and quick issue of new books (43%) and any time issue-return facility (42%). Wifi campus (47%) and good quality food items (46%) are considered as mandatory requirement of both the male and female category students.

The variables which have high capacity to increase satisfaction of both the genders are faculties help in project work, furnished classroom, availability of books in library, punctuality of faculties for classes, regular and grassroots level teaching, faculties' commitment to duty and effort on placement activities. The positive influencing requirement for satisfaction of male students is availability of newspaper, magazines, faculties responding to students' queries, furnished classroom, involvement of students in case

studies and projects and regular grassroots level teaching. Furnished seminar hall, use of adequate effective teaching aids, furnished classrooms, encouragement in class and other activities and involvement of students in case studies and projects, positively influence the female students satisfaction.

Availability of books and responding to students' queries are having high capacity to dissatisfy the students of both genders. Campus interviews are having high influence to dissatisfy male students. Wifi campus and interview preparation are having high capacity to dissatisfy the female students. Fulfillment of must be requirement of students will keep them away from dissatisfaction. Adhering to the one dimensional requirement of students will lead to satisfaction in them.

Conclusion

Overall it was observed that there was no significant difference between the responses of male and female students with respect to functional and dysfunctional questions. The must be requirements were found more in number. Therefore, institute must concentrate on fulfilling these set of must be requirements first, which if not fulfilled will lead to the state of dissatisfaction. To a larger extent uniformity of must be requirement existed between male and female students.

Uniformity in preferences was not found with respect to one dimensional requirement among male and female students.

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