IDENTIFYING AND ANALYSING THE FACTORS IMPACTING QUALITY IN EDUCATION: A STUDY TO DETERMINE SATISFACTION LEVEL OF STUDENTS AND FACULTIES IN A UNIVERSITY

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ABSTRACT

This study aimed to identify and analyse the factors impacting quality to determine the satisfaction level of students and faculty in a university. This study was carried out in a private university in India. The researchers identified certain factors based on the previous work done by different researchers. The population for this research was 116 students and 12 faculty members of Kaziranga University School of Business out of which a sample size of 90 was selected by using simple random sampling based on 95% confidence level. A questionnaire with 5 point Likert scale was used to assess the attitude and opinion of the students as well as faculty members. To analyse the data SPSS version 20.0 was used. The results and findings showed that there is a significant difference between the satisfaction level and expectation level among the students as well as faculties in terms of the different factors. The result also showed that the satisfaction levels of faculty and students do not vary considerably.

Keywords: Factors of Quality, Higher Education, Expectation Level, Satisfaction level, Students, Faculty.

1. INTRODUCTION

Service sector accounts for a substantial share in Indian economy and among the service industries, education sector is emerging as a major commercial activity in the nation. The concept of quality in education is quite new and until now not a well-developed field of study. Quality of education is going to be an issue of foremost importance in future in India and is an urgent need of the hour. In this age of globalization, the societal attitudes towards education have gone through radical changes. There is no unified terminology and the term "quality of education" is understood in different ways by different authors (Shauchenka & Buslowska, 2010). But in the last decade several factors have raised the concern regarding the quality of education imparted by the higher education institution. According to Cardoso (2010) factors such as performance indicators, accreditations programme, and quality audits have emerged to judge the quality of education in these institutes. This has led to the emergence of a debate on the applicability of quality management principles, methodologies, and tools to the Higher Education sector. Today higher education has become a commercial enterprise and is being treated as a marketable commodity (Kaushik,

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2012). The higher education in India has grown significantly in the recent years. With the number of students enrolled increasing, this sector is expanding at a great pace. But it is grappled with numerous problems which is affecting the quality of education in India. The problem includes fund crunch, ethics, value associated to delivering education, teaching learning process, assessment and accreditation of institution, quality of research, academic standards of students, innovativeness and creativity. Though lots of time and money is being invested in improving the higher education, still educational quality is not maintained on a continuous basis(Krishnan, 2011). What is seen is only a quick fix approach to maintaining quality in the educational institutions, especially in times of visit of accreditation committees like NAAC and AICTE (Krishnan, 2011).Most of the higher education institutes in India face an acute problem in terms of faculty shortage, infrastructure & poor academic standards. The main problem lies with the satisfaction level of employees and students.
Successful institutes share three basic attributes: they focus on needs of their students, continually improve the quality of the educational experience and they use student satisfaction data to shape their future directions.

Student satisfaction studies measure how effectively campuses deliver what students expect, their needs and wants. These self-examinations enable institutions to measure their student's satisfaction with a wide range of experience. By taking “soundings” of student satisfaction, institutions are able to pinpoint their strengths as well as weaknesses.(Low, 2000)

Traditionally, universities have measured one dimension of student satisfaction only: institutional performance. However for greatest impact and accuracy, satisfaction should be viewed within the context of students expectation i.e., the factors that student places in level of importance while selecting the university to study.

The same holds true with the faculty also. The employees' satisfaction in the workplace adds up to productivity which directly or indirectly impacts the quality of the institution. The relationship of faculty students is one criterion which influences all dimensions of learning process and further enhances the satisfaction level of the students. The comparison of the student and faculty satisfaction level determines if there is any gap between their perceptions of quality.

1.1 Factors of Quality in a University

Quality is notoriously elusive of perception, and no easier even to describe and discuss than deliver in practice.(Koch, 2003) It has several variants as a dictionary term and has been constructed in a wide variety of ways when linked to evaluation of higher education customer. "Quality" is the ongoing process of building and sustaining relationships by assessing, anticipating, and fulfilling stated and implied needs. (Gibson, 1986). Keeping in mind the need of creating difference in result, the various perceptions of students and faculties can be divided into several factors where quality needs to be ensured.

The factors of quality can be categorized in the following areas-

1. Faculty-Student relationship
2. Infrastructure
3. Course-curriculum
4. Administration
5. Management
6. Examination pattern

The quality level of the above areas are the determining factors of the satisfaction level of the students and faculties. If these are in a level where everybody agrees to be beneficial and satisfied,

then the quality can be said to exist or else there is a need for reforming or improving the systems to further extent(Kaushik, 2012).

2. RESEARCH OBJECTIVE

The objectives of this research are as follows.

- To determine the factors of quality in a higher education system
- To study the influence of those factors in the students' decision of choosing the university and rank according to level of expectation and importance.
- To study the satisfaction level of Faculty with regard to those factors
- To compare the satisfaction level of students and faculty.

3. RESEARCH METHODOLOGY

Research Methodology involves the systemic procedure use by the researcher which starts from the initial identification of programmed to its final conclusion. Abdella (1979).

The chapter on methodology deals with the whole process adopted for the present study including Research Approach, Research Design, Development and Description of tools, setting of the study, Population, Sample, Sampling techniques, Pilot study, Data collection, Plan for data analysis and Interpretation of data and Summary.

3.1 Research Approach

According to Treece E.W. and Treece T.T (1986) the approach to research is the umbrella that covers the basic procedure for conducting research. The evaluative approach is an applied form of research design, which involves the judgment about how well a specific programme, practice, procedure or policy is working. Evaluation may also be used to determine the effectiveness or value of processes, personnel, equipment, and the material used in a particular setting.

The aim of the study was to determine quality level by evaluating the satisfaction level of students and faculty in a university. In order to accomplish the objective of the study the evaluative approach was adopted by the investigator for this study.

3.2 Research Design

According to Polit& Beck (2011) research design is the overall plan for addressing a research question, including specifications for enhancing the study's integrity.In this study considering the objective, experiment was done to analyse the selection factors or areas of an institution that influences the student to enrol in it and the satisfaction level in those areas thereafter. Also a comparative analysis was done among the students and faculty responses.

3.3 Variables of the Study

The study variables: Agree level and satisfaction level.

3.4 Setting of the Study

Setting refers to the specific area where the study is conducted. It may be natural setting depending upon the study topic and investigator's choice.
The study was done in School of Business of Kaziranga University. It is a private university in Assam situated at Koraikhowa, Jorhat district. It was established in 2012.

3.5 Sample Size

90 students and 12 faculties were selected for the study considering 5% of error and 95% level of confidence from a population of 116 and 12 of student and faculty respectively.

3.6 Sampling Technique

Simple random sampling technique was found to be appropriate for the present study and was used in selecting the sample. In the present study 90 samples out of 116 students were randomly selected.

3.7 Tools and Techniques

Tools:Questionnaire with 5-Point Likert Scale to assess the attitude and opinion.

Technique:The technique adopted by the investigator was self-structured report.

3.7.1Description of the Tool:

The tool consisted of two sections, Section I and Section II.

Section I was prepared on the basis of Five Point Likert Scale. It consists of both positive and negative statements.

Scoring key: For each response a score mark was given as follows-

- Strongly Agree -5 marks, Agree- 4 marks, Undecided -3 marks, Disagree -2 marks and Strongly Disagree -1 mark for the positive statement.
- Section II was prepared on the basis of Five Point Likert Scale.
- The above pattern was followed for the student questionnaire and faculty questionnaire consist of Section IIonly.
- Scoring key: For each response a score mark was given as follows-
- Highly satisfied -5 marks, Satisfied- 4 marks, neither satisfied nor dissatisfied -3 marks, Dissatisfied -2 marks and Strongly Dissatisfied -1 mark.

3.8 Data Collection Process

The period of data collection was from 21th April 2014 to 3rd May 2014.

Questionnaires were distributed among the respondents and asked to fill up in front of the investigator. The queries and doubts of the respondent in responding the questions were sorted out by the investigator.

3.9 Plan for Analysis

The data collected through questionnaire will be analysed with SPSS Version 20.0. It will be in terms of the objectives of the study by using descriptive and inferential statistics, which are necessary to provide substantial summary of results. The analysis will be made by using important parameters like percentage, mean, standard deviation, z-test etc.

4. RESEARCH FINDINGS

Factors which are more influencing in choosing a university by the students to study.

The data was analysed and the different factors are ranked based on the count and the cumulative percentage. Accordingly Management had a count of 84 which means 84 students out of a sample of 90 have selected management has a deciding factor for choosing a university to study followed by Course curriculum with a count of 76, faculty with 66, infrastructure with 56, administration with 37 and Others which include institution fame, promotion etc. got a count of 7. The cumulative percentage is calculated as shown below. The analysed data is shown in Table 1.

Selection Factors	Count	Cumulative Percentage	Rank of factors based on count
Management	84	25.76	1
Course	76	49.08	2
Faculty	66	69.32	3
Infrastructure	56	86.5	4
Administration	37	97.85	5
Others	7	100	6

Table 1: Evaluation of the factors which are more influencing in selecting a university to study

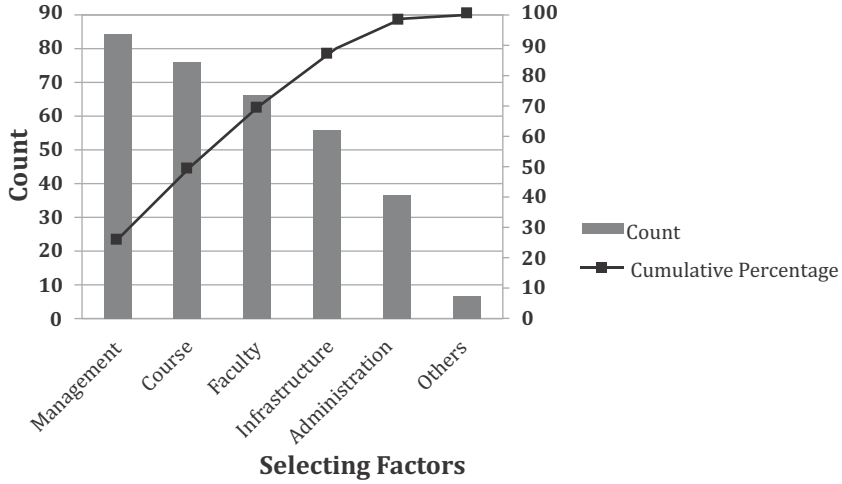
For the first factor i.e. Management, the Cumulative Percentage is calculated as

$$\text{Cumulative Percentage} = \frac{(\text{Individual Count})}{(\text{Total Count})} \text{ X } 100$$

From the second factor onwards the Cumulative Percentage is calculated as

$$\text{Cumulative Percentage} = \frac{(\text{Individual Count+Count of the previous factors})}{(\text{Total Count}) \text{ X } 100}$$

Also a Pareto analysis was done based on the count and cumulative percentage. From the analysis it was found that first three factors namely management, course-curriculum and faculty profile are the most impacting ones when a student chooses a university. These are the areas from which the students expect the most in terms of quality. The Pareto analysis is shown in Figure 1.



To fulfil the second objective i.e. to determine the satisfaction level of students and faculty with respect to the different factors, the responses were divided into three cluster poor, moderate and highly satisfied. This division was done based on the overall mean and standard deviation. This was done with respect to all the factors.

Satisfaction Level of Students with respect to those identified factors

Table 2 reveals that majority of the students, 68.9% were moderately satisfied with their **management**.17.8% and 13.3% students' satisfaction level with management was found poor and high respectively. Overall mean and standard deviation of satisfaction of students was 16.42 and 4.709 respectively.

Further 78.9% were moderately satisfied with their **course-curriculum**.14.4% and 6.7% students' satisfaction level with course-curriculum was found poor and high respectively. Overall mean and standard deviation of satisfaction of students was 16.36 and 3.881 respectively.

Also 68.9% students were moderately satisfied with their **faculty**.20% and 11.10% students' satisfaction level with faculty was found poor and high respectively. Overall mean and standard deviation of satisfaction of students was 23.77 and 6.589 respectively.

Table 2 also reveals that 75.6% were moderately satisfied with their **infrastructure**.16.7% and 7.8% students' satisfaction level with infrastructure was found poor and high respectively. Overall mean and standard deviation of satisfaction of students was 13.78 and 4.326 respectively.

Also 74.4% were moderately satisfied with their **administration**.17.8% and 7.8% students' satisfaction level with administration was found poor and high respectively. Overall mean and standard deviation of satisfaction of students was 11.18 and 4.021 respectively.

Satisfaction Level	Management		Course Curriculum		Faculty		Infrastructure		Administration	
	F	%	F	%	F	%	F	%	F	%
Poor	16	17.8	13	14.4	18	20	15	16.7	16	17.8
Moderate	62	68.9	71	78.9	62	68.9	68	75.6	67	74.4
High	12	13.3	6	6.7	10	11.1	7	7.7	7	7.8
Total	90	100.0	90	100.0	90	100.0	90	100.0	90	100.0

Table 2: Satisfaction Level of Students in terms of Different factors

F - Frequency of response, %-Percentage of response

Factors	Mean	Standard Deviation
Management	16.42	4.709
Course Curriculum	16.36	3.881
Faculty	23.77	6.589
Infrastructure	13.78	4.326
Administration	11.18	4.021

Table 3: Mean and Standard Deviation of the factors determining the satisfaction level of Students

Satisfaction Level of Faculty with respect to those factors

Table 3 reveals that majority of the faculty, 66.7% were moderately satisfied with the **management**.
8.3% and 25% faculty's satisfaction level with management was found poor and high respectively. Overall mean and standard deviation of satisfaction of faculty was 16.42 and 3.260 respectively.

Table 3 reveals that majority of the faculty, 58.3% were moderately satisfied with the **course-curriculum**.16.7% and 25% faculty's satisfaction level with course-curriculum was found poor and high respectively. Overall mean and standard deviation of satisfaction of faculty was 14.17 and 2.691 respectively.

Table 3 reveals that majority of the faculty, 58.3% were moderately satisfied with their **students**.16.7% and 25.5% faculty's satisfaction level with students was found poor and high respectively. Overall mean and standard deviation of satisfaction of faculty was 24.08 and 2.314 respectively.

Table 3 reveals that majority of the faculty i.e. 75% were moderately satisfied with the **infrastructure**, 16.7% and 8.3% faculty's satisfaction level with infrastructure was found poor and high respectively. Overall mean and standard deviation of satisfaction of faculty was 14.92 and 2.314 respectively.

Table 3 reveals that majority of the faculty, 66.7% were moderately satisfied with the **administration**.25% and8.3% faculty's satisfaction level with administration was found poor and high respectively. Overall mean and standard deviation of satisfaction of faculty was 16.67 and 2.498 respectively.

Satisfaction Level	Management		Course Curriculum		Student		Infrastructure		Administration	
	F	%	F	%	F	%	F	%	F	%
Poor	1	8.3	2	16.7	2	16.7	2	16.7	3	25.0
Moderate	8	66.7	7	58.3	7	58.3	9	75.0	8	66.7
High	3	25.0	3	25.0	3	25.0	1	8.3	1	8.3
Total	12	100.0	12	100.0	12	100.0	12	100.0	12	100.0

Table 3: Satisfaction Level of Faculties in terms of Different factors

Factors	Mean	Standard Deviation
Management	16.42	3.260
Course Curriculum	14.17	2.691
Student	24.08	2.314
Infrastructure	14.92	2.314
Administration	16.67	2.498
Exam pattern	12.58	3.288

Table 4: Mean and Standard Deviation of the factors determining the satisfaction level of Faculty

Comparing Satisfaction Level between Students and Faculty

To compare the satisfaction levels of faculty and students, Z-test has been performed.

The calculated value of z = -0.165, which is not statistically significant (p = 0.87 >.05). Similarly calculated values of z to compare satisfaction of infrastructure (z = -0.892, p = 0.374>0.05) and course curriculum (z = 1.89, p = 0.062 >0.05) are not significant. We can thus infer that the satisfaction levels of faculty and students do not vary considerably. The Z-test is shown in the table 5.

		Z-test for Equality of Means				
	Z	P-value	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Student Faculty Relationship	-0.165	0.870	-.317	1.925	-4.136	3.502
Infrastructure	-0.892	0.374	-1.139	1.276	-3.671	1.393
Course Curriculum	1.890	0.062	2.189	1.158	-.109	4.487

Table 5: Comparing Satisfaction Level between Students and Faculty using Z-test.

5. LIMITATION

The study was conducted in private university in India and so the analysis and findings were limited to a small sample. Larger sample would have yielded different result. Also the variables or the factors that have been taken into consideration for judging the quality are broad and have further scope of subdivision. Also the inferences only cover fulfilment of the objectives and no further analysis is done and the work was restricted to only relation between student and faculty members.

6. CONCLUSION

From the findings we can draw inference that students as well as faculty share the same view point about quality in education and the satisfaction level of teacher and student has no difference. The perception in both the levels are same. The university needs to improve the quality level in areas like infrastructure and course-curriculum which are comparatively lacking behind with respect to expectation of students. Measures should be taken to improve the elements of these areas and benefit student as well as faculty. Further it can be concluded that the faculty-student carry a similar perception and strong demand for quality as the majority are found to be moderately satisfied. Some recommendations could be like, asking for feedback for improvement in course-curriculum, standardising the infrastructural elements etc. This will help both faculty and students to increase their productivity and hence the overall quality.

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