TQM : A Comparative Study Between Teachers And Students

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ABSTRACT

The Indian educational system is realizing the significance of providing quality education to its youth. The “quality” dimension forms the core of the education system. Quality has become recognized as perhaps the crucial factor in determining long-term success and survival. It is therefore, the need of the hour and the responsibility of every academic institution, to see where the quality work at the institution stands today. This paper starts with the background theory and then outlines the results of a study conducted on students and teachers of Allahabad district of Uttar Pradesh, India to obtain their perception about the quality aspect of their institution. The data thus collected was subjected to reliability analysis and t-test to test the various hypotheses.

INTRODUCTION

Today’s education system is demanding a dynamic change in itself. Quality is one of the most crucial issue in education. Service quality is now acting as a centre of attraction to practitioners, managers and researchers owing to its robust impact on business performance, lower cost, customer satisfaction, customer loyalty and profitability. Quality management is a vehicle to which professionals can use to cope with the “forces of change”. The concept has been developed by Edward Deming, Joseph M. Juran, Philip B. Crosby. Feigenbaum believes that “quality of education” is the key factor in “invisible” competition between countries since the quality of products and services is determined by the way that “managers, teachers, workers, engineers, and economists think, act, and decisions about quality”.

In today’s competitive globalization age, higher education, like any other business needs quality. The “quality” dimension forms the core of the education system. Quality has become recognized as perhaps the crucial factor in determining long-term success and survival.

This paper outlines the results of a study aimed at developing a framework for quality measurement in professional education and assesses the perception of the students and the teachers on the quality aspect of the institution.

THEOREOTICAL BACKGROUND

- Service quality
  The word quality has different meanings for different people. Green (1994) refers to quality as an elusive and difficult concept to define. The Characteristics like intangibility, heterogeneity, and inseparability must be acknowledged for full understanding of service quality.

- Quality in education
  The number of interpretations has been involved while applying the concept of quality to higher education.
  Quality in education has been defined with varying perspectives as:
 Excellence in education (Peters and Waterman, 1982);
 Value addition in education (Feigenbaum, 1951);
 Fitness for purpose (Reynolds, 1986; Brennan et al., Tang and Zairi, 1998);
 Fitness of educational outcome and experience for use (Juran and Gryna, 1988);
 Conformance of education output to planned goals, specifications and requirements (Gilmore, 1974; Crosby, 1979);
 Defect avoidance in education process (Cosby, 1979); and
 Meeting and exceeding customer’s expectations of education (Parasuraman et al., 1985)

Thus defining quality is a complex task as it involves various conceptualizations and this poses problems in formulating a unique and inclusive definition. Numerous studies have been conducted to measure the quality of service of various sectors. Studies have focussed upon the specific sectors like SMEs, banking, education and others. Studies on quality in education have identified the dimension of quality measurement at an academic institution. Quality is a multidimensional concept which includes among its ambit all related functions and processes that form the part of the educational system. Therefore, any process for assessment of quality should take into account the quality of students, teachers, infrastructure student support services, curricula assessment and resources (Isani and Virk, 2005).

Aldemir and Gulcan (2004) examined the satisfaction level of Turkish students’, the results of study showed that the satisfaction of students depends on various factors like the quality of instructors, education, textbooks. Kamran Moosa (2006) in their Quality Assurance Model in Education, is of the view that academic standards and quality objectives is the basis for customer satisfaction which in turn defines the quality at the institute. Accordingly to Marginson (2003), there is also a need to recognize that the quality of the programme depends to a large extent on the quality of the work of academicians who deliver them. Findings from Masood Akhtar(2007) points out that, building up of management capabilities and practices is of equal importance than setting up the right educational processes at the universities, colleges and schools.

Archana Krishnan(2011) conclude that, we need to improve the infrastructure, teaching methodologies, quality of teachers recruited to completely revamp the system. She has also directed the researchers to focus on various other dimensions of the quality.

OBJECTIVES OF THE STUDY

The objectives of the study were to:

 To investigate the quality of the private professional institution.
 To assess the perception of the teachers on the quality aspect of the institution.
 To assess the perception of the students on the quality aspect of the institution.
 To compare the perception scores of the teachers and the students on the quality aspect of the institution.

THEOREOTICAL FRAMEWORK

On the basis of above referred literature this study has identified some important dimensions of quality like quality of administration, quality of infrastructure, quality of faculty, quality of examination and assessment system and the quality objectives of the B.Tech Programme which can affect the overall quality of the professional educational institution. The framework to assess the overall quality of the institute is presented here:
RESEARCH HYPOTHESES

Based on the review of literature, the paper is an attempt to diagnose whether any significant differences exist between the perception of teachers and students regarding practice of TQM in the Private Professional Institution. Hence the following hypothesis has been framed.

**H\textsubscript{1}**: A significant difference exists between teachers and students of Private Professional Institution on perceived level of TQM.

**H\textsubscript{1A}**: A significant difference exists between teachers and students of the Private Professional Institution regarding perceived quality of administration.

**H\textsubscript{1B}**: A significant difference exists between teachers and students of the Private Professional Institution regarding perceived quality of infrastructure.

**H\textsubscript{1C}**: A significant difference exists between teachers and students of the Private Professional Institution regarding perceived quality of faculty.

**H\textsubscript{1D}**: A significant difference exists between teachers and students of the Private Professional Institution regarding perceived quality of examination and assessment system.

**H\textsubscript{1E}**: A significant difference exists between teachers and students of the Private Professional Institution on perceived quality objectives of B.Tech Programme.

RESEARCH METHODOLOGY

This study is an Empirical research based upon Descriptive research design. The study is confined to the teachers and the students of select professional institution of Allahabad city. This study is set in the Area of Allahabad city; the population in this study comprises teachers & students throughout the world while the sample units consist of teachers & students in the city of Allahabad. The sample size comprises 15 teachers and 40 students & the data was collected using Non-probability, convenience sampling. The data used in this study is both primary as well as secondary. The primary data was collected through survey method. The tool administered for collecting relevant data was in the form of a questionnaire which was comprised of five sections and examines the perception of teachers and students regarding the overall quality of the institution on a Likert’s five point scale anchored by “strongly disagree” (1) to “strongly agree” (5).
TABLE 1: RELIABILITY ANALYSIS OF THE DIMENSIONS OF QUALITY ASSESSMENT

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Administration</td>
<td>0.868</td>
</tr>
<tr>
<td>Quality of Infrastructure</td>
<td>0.733</td>
</tr>
<tr>
<td>Quality of Faculty</td>
<td>0.854</td>
</tr>
<tr>
<td>Quality of Examination and Assessment System</td>
<td>0.711</td>
</tr>
<tr>
<td>Quality Objectives of B.Tech Programme</td>
<td>0.718</td>
</tr>
<tr>
<td>Overall Quality of the Institution</td>
<td>0.948</td>
</tr>
</tbody>
</table>

From Table 1, it is evident that, Reliability analysis demonstrated the Cronbach’s Alpha coefficient for this questionnaire to be 0.948 which is considered to be relatively high and internally consistent (Hair et al., 1998).

Secondary data used in this study has been collected from sources such as Journals, Books & Websites. The tools used for data analysis comprises charts, graphs, tables on Ms Excel & SPSS. The techniques adopted for data analysis & interpretation comprises reliability analysis & t-test.

HYPOTHESES TESTING AND INTERPRETATION

To test the hypotheses, perception scores of teachers and students on various dimensions of TQM are calculated using t-test through SPSS. The following results were obtained from hypotheses testing.

**H1: There exists a significant difference between teachers and students of Private Professional Institution on perceived level of TQM.**

<table>
<thead>
<tr>
<th>Type of sample unit</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t- value</th>
<th>df</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>40</td>
<td>3.0555</td>
<td>.49646</td>
<td>.07850</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers</td>
<td>15</td>
<td>4.0173</td>
<td>.39438</td>
<td>.10183</td>
<td>6.736</td>
<td>53</td>
<td>.000**</td>
</tr>
</tbody>
</table>

*Significant at the 0.01 level

**Interpretation**

The test statistics shows that the t- value is 6.736 which is significant at .01 level which shows that hypothesis H1 is accepted. It refers that there is a significant difference between TQM level of Private Professional Institution as perceived by their teachers and students. The mean values of the responses indicate that teachers strongly agree whereas the students moderately agree with the level of TQM.

**H_{1A}: There exists a significant difference between teachers and students of the Private Professional Institution regarding perceived quality of administration.**

<table>
<thead>
<tr>
<th>Type of sample unit</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t- value</th>
<th>df</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>40</td>
<td>3.0867</td>
<td>.59594</td>
<td>.09423</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers</td>
<td>15</td>
<td>4.0711</td>
<td>.51975</td>
<td>.13420</td>
<td>5.637</td>
<td>53</td>
<td>.000**</td>
</tr>
</tbody>
</table>

*Significant at the 0.01 level
The test statistics shows that the t-value is 5.637 which is significant at .01 level which means that hypothesis is accepted.

It refers that there is a significant difference between teachers and students of the Private Professional Institution regarding perceived quality of administration. The mean values of the responses indicate that teachers strongly agree whereas the students moderately agree with perceived quality of administration.

**H_{1B}: There exists a significant difference between teachers and students of the Private Professional Institution regarding perceived quality of infrastructure.**

<table>
<thead>
<tr>
<th>Type of Sample unit</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t-value</th>
<th>df</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>40</td>
<td>3.1208</td>
<td>.64383</td>
<td>.10180</td>
<td>5.473</td>
<td>53</td>
<td>.000**</td>
</tr>
<tr>
<td>Teachers</td>
<td>15</td>
<td>4.1667</td>
<td>.59428</td>
<td>.15344</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at the 0.01 level

The test statistics shows that the t-value is 5.473 which is significant at .01 level which means that hypothesis is accepted.

It refers that there is a significant difference between teachers and students of the Private Professional Institution regarding perceived quality of infrastructure. The mean values of the responses indicate that teachers strongly agree whereas the students moderately agree with perceived quality of infrastructure.

**H_{1C}: There exists a significant difference between teachers and students of the Private Professional Institution regarding perceived quality of faculty.**

<table>
<thead>
<tr>
<th>Type of Sample Unit</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t-value</th>
<th>df</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>40</td>
<td>2.9635</td>
<td>.59686</td>
<td>.09437</td>
<td>6.155</td>
<td>53</td>
<td>.000**</td>
</tr>
<tr>
<td>Teachers</td>
<td>15</td>
<td>3.9795</td>
<td>.36484</td>
<td>.09420</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at the 0.01 level**

The test statistics shows that the t-value is 6.155 which is significant at .01 level which means that hypothesis is rejected.

It refers that there is a significant difference between teachers and students of the Private Professional Institution regarding perceived quality of faculty. The mean values of the responses indicate that teachers moderately agree whereas students moderately disagree with perceived quality of faculty.

**H_{1D}: There exists a significant difference between teachers and students of the Private Professional Institution regarding perceived quality of examination and assessment system.**

<table>
<thead>
<tr>
<th>Type of Sample Unit</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t-value</th>
<th>df</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>40</td>
<td>3.1944</td>
<td>.52403</td>
<td>.08286</td>
<td>5.341</td>
<td>53</td>
<td>.000**</td>
</tr>
<tr>
<td>Teachers</td>
<td>15</td>
<td>4.1704</td>
<td>.32656</td>
<td>.08432</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at the 0.01 level**
The test statistics shows that the t-value is 5.341 which is significant at .01 level which means that hypothesis is accepted.

It refers that there is a significant difference between teachers and students of the Private Professional Institution regarding perceived quality of examination and assessment system. The mean values of the responses indicate that teachers strongly agree whereas the students moderately agree with perceived quality of examination and assessment system.

\[ H_{1E}: \text{There exists a significant difference between teachers and students of the Private Professional Institution on perceived quality objectives of B.Tech Programme.} \]

<table>
<thead>
<tr>
<th>Type of Sample unit</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t-value</th>
<th>df</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>40</td>
<td>2.9250</td>
<td>.69459</td>
<td>.10982</td>
<td>5.043</td>
<td>53</td>
<td>.000**</td>
</tr>
<tr>
<td>Teachers</td>
<td>15</td>
<td>3.9048</td>
<td>.46343</td>
<td>.11966</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at the 0.01 level

The test statistics shows that the t-value is 5.043 which is significant at .01 level which means that hypothesis is accepted.

It refers that there is a significant difference between teachers and students of the Private Professional Institution on perceived quality objectives of B.Tech Programme. The mean values of the responses indicate that teachers moderately agree whereas the students moderately disagree with perceived quality objectives of B.Tech Programme.

DISCUSSION
This study investigates the quality of the private professional institution and assesses the perception of the teachers and the students towards the quality determinants of an educational institution like quality of administration, quality of infrastructure, quality of faculty, quality of examination and assessment system and the quality objectives of the B.Tech Programme.

From the results it is evident that there exists a significant difference between the perception of the teachers and the students on various quality determinants which is in line with the research by Pandi et al. as teachers strongly agree with the existence of some of the quality determinants like quality of administration, quality of infrastructure, quality of examination and assessment system whereas on the other hand students moderately agree with the same determinants.

The finding corresponds with some previous field studies dealt by the researcher Masood Akhtar. A strong dissatisfaction can be seen from the student’s viewpoint towards the quality of faculty at the institute and with the quality objectives of the B.Tech programme, this matches with the study by Abdullah et al. In line with the study by Zeithaml et al. (2009), it can be concluded that perceptions of stakeholders i.e. teachers’ and students’ varies on the same aspect of service quality. As a result, there is a need for institute service management to determine the importance of various service quality attributes from the view point of all the stakeholders and manage them accordingly.

CONCLUSIONS AND RECOMMENDATIONS
The people very well feel the importance of technical education. So the educational institutions are vested with tremendous responsibility to transform a youth into a high intellectual person in their respective fields by imparting quality based education.

In the light of above results here are some suggestions and recommendations for the improvement of quality of the private professional institution. Efforts should be made to induct, train and retain qualified and expert teachers for promoting the quality education. Objectives of the B.Tech Programme should be designed to meet the contemporary challenges and needs of the market, for this, they need to be made more practical and skill oriented.
Institution should focus more on placement activities and technology-based teaching should be emphasised. The study has clearly established importance of the quality dimensions towards world-class education. Therefore, the study concluded that in order to satisfy the present need of the society, the role of quality cannot be neglected in higher education and should be implemented through proper educational system.

REFERENCES


