**Title: Measuring Service Quality on educational services: SERVQUAL Model Framework**

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**Abstract:**

By examining students' expectations and perceptions of the services offered, service quality measurement is one of the key measuring techniques or instruments used by educational institutions to comprehend students' needs and experiences. In order to identify the service variables in the educational sector, this study assesses the service quality of a university in Surat, Gujarat, India. At the educational institution, five specific dimensions—tangibles, reliability, responsiveness, assurance, and empathy—were looked at. A well-structured questionnaire was created, and SERVQUAL dimensions scales were modified for the purpose. The management and commerce students who made up the sampling units were asked about the expected and perceived quality of the services provided to them. Personal interviews were used to gather their thoughts. Students received a total of 120 questionnaires, 113 of which were deemed legitimate. The results of service gap analysis showed negative gaps for the assurance, reliability, and tangibles dimensions. To enhance service quality and raise student happiness, a few service solutions are suggested to the university.

**Keywords:** Service Quality, Gap Model, Educational Services.

1. **Introduction:**

Because it creates a significant amount of jobs, education is a vital component of every country's economy and a major focus for both public and private universities and colleges. The current investigation and research are being carried out at a university in Gujarat, India's Surat area. In Gujarat State, there will be 68 recognized universities in 2020, with three private universities and one government university located in Surat district. Increased rivalry among universities and colleges in higher education puts more focus on satisfying the needs and expectations of its students.As a result, efforts are essential to monitor actions done by various colleges and guarantee that quality is a fundamental component of higher education. Understanding how students viewed service quality is also important. Today, students make up the majority of the clientele for Gujarat's colleges and universities. As a result, service expectations and service perception are extremely important in determining the final quality perceptions that students form. Every private university now has a distinct marketing division that handles admissions, counseling, student feedback about courses, teaching & non-teaching staff members, and places more focus on satisfying the expectations and wants of its participating customer, i.e., students. The needs and expectations of students should be managed by each university or educational institution. This research study mainly focus on SERVQUAL dimensions i.e. tangibles, reliability, responsiveness, assurance & empathy in University management & commerce students.

1. **Review of Literature:**

QUALITY is an elusive and indistinct construct. Often mistaken for imprecise adjectives like "goodness, or luxury, or shininess, or weight" (Crosby, 1979)[5]. Explication and measurement of quality also present problems for researchers (Kent B. Monroe, 1983)[12], who often bypass definitions and use uni-dimensional self-report measures to capture the concept (Jacoby, 1971)[11].

But understanding product quality is insufficient to comprehend service quality. For a complete understanding of service quality, three well-documented features of services—intangibility, heterogeneity, and inseparability—must be addressed. First, most services are intangible (Terry Clark, 1996)[24]. Because they are performances rather than objects, precise manufacturing specifications concerning uniform quality can rarely be set. The majority of services cannot be tallied, measured, inventoried, tested, or confirmed in order to guarantee quality prior to sale. Due to intangibility, the business may find it challenging to comprehend how customers view its offerings and assess service quality (Valarie A. Zeithaml, 1981)[25]. Second, services, particularly those with a high labor element, are heterogeneous; the quality of their performance fluctuates often between producers, between customers, and even within a single day. Consistency of behavior from service personnel (i.e., uniform quality) is difficult to assure (Mary J. Bitner, 1981)[15] because what the firm intends to deliver may be entirely different from what the consumer receives. Third, production and consumption of many services are inseparable (Benoit, 2010)[3]. As a result, services' quality is not engineered at the manufacturing facility before being given to the customer intact.

For instance, in labour-intensive services, quality happens throughout service delivery, typically in an interaction between the client and the company contact person (Lehtinen, 1991)[13]. In services where there is significant user involvement (e.g., haircuts, doctor visits), the service provider may also have less managerial control over quality. In these circumstances, the customer's input (description of the desired haircut, description of symptoms) is crucial to the performance quality of the service (Parasuraman, 1985)[16].

**2.1. Service Quality in Education:**

The dimensions of service quality have varied according to the thought of two different schools, the Nordic school (Grönroos, 1993)[8] and the American school (Parasuraman, 1988)[17], by industries (Haksik Lee, 2000)[9], by service types (Emin Babakus, 1992)[6], by culture (Ben Shaw-Ching Liu, 2001)[2] or even by providers or firms in the same industry (Abdullah, 2006)[1]. An awareness of the quality dimensions and their pertinent features was offered by the dimensional approach to service quality. Contrarily, the antecedent framework offered insights into how consumers perceived service quality as a whole and how this perception affected the ability to forecast their behavior (Pratibha A Dabholkar, 2000)[19]. Across study perspectives, the effects of service quality are different. For a commercial product, for instance, the economic worth of the service may be quite important. When compared to emotional worth, however, this might not mean much in terms of the emergency services' quality of service.

Universities should move away from being product-led, or depending on the product to sell, and toward a more "customer-led" approach since higher education is a service and students are expected to pay for their educational expenses (Robert J. Angell, 2008)[20]. In the most recent research, it was discovered that students sought proof of high-quality services when making an unclear and risky decision about which university to attend (Bill Donaldson, 2006)[4]. This demonstrates how crucial high-quality services are in a university setting. Because the school is unaware of how difficult it is to measure service quality and recruit students, it will ultimately be at a disadvantage (Robert J. Angell, 2008)[20]. Therefore, a marketing approach to the higher education domain may provide an important outcome.

Higher education has seen a significant trend of increased rivalry between colleges and the options accessible to students to pursue their studies on a global scale. Implementing quality techniques, such overall quality management, is seen by many university and college administrators as a strategy to ensure that institutions perform effectively and that higher education customers are being well-served (M. Sadiq Sohail, 2004)[14]. As a result, many institutions of higher education have made a commitment to putting quality practices into practice and have used the process to alter the essential character of academic life or curriculum. There have also been some concerns that the reformation of these campuses has focused mostly on non-academic issues, such as better and more efficient use of funding, campus administrative improvements, and the processing of admissions (J. V. Koch, 1998)[10].

**2.2. Service Quality Dimensions:**

Table No: 1 represents the generic dimensions of Service Quality of Parasuraman, Zeithaml and Berry model. The Service Quality attributes in an educational setting now-a-days demanding more as more number of universities are going to open in future.

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| **Table 1: Summary of generic dimensions of Service Quality of Parasuraman, Zeithaml and Berry** (Parasuraman, 1985)[16] | |
| Tangibles | Physical facilities and equipment that is needed to provide services. |
| Reliability | Ability to deliver the desired services accurately, consistently and dependably. |
| Responsiveness | Ability to response to customer request on time. |
| Assurance | Ability to convey trust & confidence to customer through the services provided. |
| Empathy | Ability to show personal care and attention to customers. |

1. **Problem Statement:**

The educational sector is become extremely competitive. Numerous private colleges and universities are struggling with issues like diminishing enrollments of students, competition from other private colleges and universities, inadequate marketing plans and strategies, etc. The quality of education is a key consideration for attracting and keeping students because many private institutions offer courses of a similar nature. Internationalization of quality and guarantee of service quality take center stage because the majority of private institutions are in competition with one another for achieving some level of international rating & accreditation in their programs. Numerous studies have found that good service raises a university's reputation (Parves Sultan, 2012)[18]. Private universities compete fiercely with one another, especially when the same courses or programs are being offered. Universities must also contend with the fact that students' perceptions of quality are changing quickly as a result of emerging new technologies, techniques, skills, and knowledge. Additionally, students come to universities with a variety of needs and expectations, and there aren't enough quality assurance procedures in place to gauge their satisfaction with the educational services they receive.

1. **Research Methodology:**

By examining the differences between predicted and perceived student quality, the primary goal of this study is to assess the service quality characteristics of universities among Management and Commerce students. 120 students were chosen as the target group, and 113 of those responses were deemed legitimate. As a rule of thumb, sample size between 30 & 500 are considered as effective sample size (Sekaran, 2000)[22]. Purposive sampling was utilized as the sampling technique, and the distribution of the samples was concentrated mostly on the B.B.A. (Management) and B.Com. The instrument adopted for this research was basically the SERVQUAL by (Parasuraman, 1985)[16] with some items adopted from the research work of (Gaston LeBlanc, 1997)[7] in order to align with education services. The Service Quality Gap Model of Parasuraman, Zeithaml, and Berry is used to analyze data in order to determine the level of student expectations and perception.

1. **Results and Discussions:**

According to the respondents' demographics, 52% of respondents were men and 48% were women. Respondents were graduate students in business administration (B.B.A.) and business (B.Com) with a background in management (50%) and commerce (50%) at a university. In terms of age distribution, 23% of respondents were under the age of 20, 20% were between the ages of 19 and 20, 10% were under the age of 19, and 47% were over the age of 21.

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| **Table 2: Student Expectation for 21 SERVQUAL** | | | | | | | |
| **Statements** | **SDA** | **DA** | **UN** | **A** | **SA** | **Mean** | **Std. Dev.** |
| **Tangibles** | | | | | | | |
| Have up-to-date equipment | 0 | 0 | 12 | 67 | 34 | 4.19 | 0.61 |
| Visually appealing facilities | 0 | 10 | 12 | 42 | 49 | 4.15 | 0.938 |
| Employees are neat in appearance | 0 | 0 | 1 | 60 | 52 | 4.45 | 0.517 |
| Visually appealing material associated with the service | 0 | 0 | 12 | 76 | 25 | 4.12 | 0.563 |
| **Average of Tangibles** | | | | | | **4.23** | **0.657** |
| **Reliability** | | | | | | | |
| Providing services as promised | 0 | 15 | 9 | 57 | 32 | 3.94 | 0.948 |
| Sympathetic with and reassure student’s problem | 0 | 0 | 5 | 69 | 39 | 4.3 | 0.549 |
| Providing services at the promised time | 3 | 16 | 16 | 39 | 39 | 3.84 | 1.13 |
| University keep accurate records | 0 | 0 | 8 | 58 | 47 | 4.35 | 0.609 |
| **Average of Reliability** | | | | | | **4.11** | **0.809** |
| **Responsiveness** | | | | | | | |
| University inform students exactly when services will be performed | 0 | 11 | 21 | 52 | 29 | 3.88 | 0.908 |
| University give prompt service to students | 5 | 6 | 13 | 59 | 30 | 3.91 | 0.996 |
| Willingness to help students | 0 | 0 | 0 | 52 | 61 | 4.54 | 0.501 |
| Readiness to respond to student’s request | 0 | 1 | 4 | 67 | 41 | 4.31 | 0.584 |
| **Average of Responsiveness** | | | | | | **4.16** | **0.747** |
| **Assurance** | | | | | | | |
| Employees can be trusted | 0 | 0 | 7 | 49 | 57 | 4.44 | 0.611 |
| Students feel safe when dealing with university employees | 0 | 0 | 0 | 58 | 55 | 4.49 | 0.502 |
| Employees of college are polite | 0 | 3 | 3 | 50 | 57 | 4.42 | 0.679 |
| Employees get adequate support from management to perform jobs | 2 | 1 | 13 | 61 | 36 | 4.13 | 0.785 |
| **Average of Assurance** | | | | | | **4.37** | **0.644** |
| **Empathy** | | | | | | | |
| University gives students individual attention | 0 | 2 | 8 | 63 | 40 | 4.25 | 0.662 |
| University employees give personal attention | 3 | 2 | 14 | 61 | 33 | 4.05 | 0.854 |
| University employees know students’ need | 3 | 0 | 29 | 66 | 15 | 3.8 | 0.769 |
| The University has students' best interests at heart | 0 | 0 | 17 | 67 | 29 | 4.11 | 0.632 |
| University has operating hours convenient to all their students | 2 | 13 | 11 | 53 | 34 | 3.92 | 1.01 |
| **Average of Empathy** | | | | | | **4.03** | **0.79** |

Following assurance (Mean = 4.37, SD =.0644), tangibles (Mean = 4.23, SD = 0.657), responsiveness (Mean = 4.16, SD = 0.747), and reliability (Mean = 4.11, SD = 0.809), the analysis of the overall mean service expectation revealed that the empathy dimension had the lowest score (Mean = 4.03, SD = 0.79).

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| **Table 3: Student Perception for 21 SERVQUAL** | | | | | | | |
| Statements | SDA | DA | UN | A | SA | Mean | Std. Dev. |
| **Tangibles** | | | | | | | |
| University have up-to-date equipment | 0 | 8 | 14 | 49 | 42 | 4.11 | 0.880 |
| University have visually appealing facilities | 0 | 0 | 9 | 68 | 36 | 4.24 | 0.587 |
| University employees are neat in appearance | 0 | 0 | 0 | 71 | 42 | 4.37 | 0.485 |
| University have visually appealing material associated with the service | 0 | 11 | 4 | 69 | 29 | 4.03 | 0.829 |
| **Average of Tangibles** | | | | | | **4.19** | **0.695** |
| **Reliability** | | | | | | | |
| University providing services as promised | 6 | 12 | 4 | 60 | 31 | 3.87 | 1.098 |
| University sympathetic with and reassure student’s problem | 0 | 3 | 6 | 65 | 39 | 4.24 | 0.672 |
| University providing services at the promised time | 0 | 19 | 17 | 39 | 38 | 3.85 | 1.071 |
| University keep accurate records | 0 | 0 | 6 | 55 | 52 | 4.41 | 0.592 |
| **Average of Reliability** | | | | | | **4.09** | **0.858** |
| **Responsiveness** | | | | | | | |
| University inform students exactly when services will be performed | 0 | 13 | 14 | 47 | 39 | 3.99 | 0.968 |
| University give prompt service to students | 0 | 11 | 5 | 57 | 40 | 4.12 | 0.884 |
| University shows willingness to help students | 0 | 3 | 0 | 65 | 45 | 4.35 | 0.623 |
| University shows readiness to respond to student’s request | 0 | 0 | 10 | 65 | 38 | 4.25 | 0.605 |
| **Average of Responsiveness** | | | | | | **4.17** | **0.770** |
| **Assurance** | | | | | | | |
| University employees can be trusted | 0 | 3 | 3 | 57 | 50 | 4.36 | 0.669 |
| Students feel safe when dealing with University employees | 0 | 0 | 3 | 74 | 36 | 4.29 | 0.512 |
| Employees of University are polite | 0 | 3 | 5 | 55 | 50 | 4.35 | 0.691 |
| University Employees get adequate support from management to perform jobs | 0 | 6 | 9 | 55 | 43 | 4.19 | 0.800 |
| **Average of Assurance** | | | | | | **4.30** | **0.668** |
| **Empathy** | | | | | | | |
| University gives students individual attention | 0 | 5 | 4 | 73 | 31 | 4.15 | 0.684 |
| University employees give personal attention | 3 | 3 | 20 | 47 | 40 | 4.04 | 0.949 |
| University employees know students’ need | 5 | 3 | 10 | 65 | 30 | 3.99 | 0.931 |
| University has students' best interests at heart | 0 | 0 | 18 | 63 | 32 | 4.12 | 0.656 |
| University has operating hours convenient to all their students | 5 | 5 | 8 | 67 | 28 | 3.96 | 0.949 |
| **Average of Empathy** | | | | | | **4.05** | **0.832** |

The assurance dimension had the highest overall mean score for service perception (Mean = 4.30, SD = 0.668), followed by tangibles (Mean = 4.19, SD = 0.695), responsiveness (Mean = 4.17, SD = 0.770), and reliability (Mean = 4.09, SD = 0.858), with empathy having the lowest overall mean score (Mean = 4.05, SD = 0.832).

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| **Table 4: Student Expectation and Student Perception & Gap Analysis for 21 SERVQUAL.** | | | | | |
|  | **Student Expectations** | | **Students Perception** | | **Overall Gap** |
|  | **Mean** | **SD** | **Mean** | **SD** | **GAP (MP - ME)** |
| **Tangibles** | 4.23 | 0.657 | 4.19 | 0.695 | (-0.04) |
| **Reliability** | 4.11 | 0.809 | 4.09 | 0.858 | (-0.02) |
| **Responsiveness** | 4.16 | 0.747 | 4.17 | 0.77 | 0.01 |
| **Assurance** | 4.37 | 0.644 | 4.3 | 0.668 | (-0.07) |
| **Empathy** | 4.03 | 0.79 | 4.05 | 0.832 | 0.02 |

(Note: Mean = Overall mean of the dimension, SD = Standard Deviation, Mean Score of 1 = strongly disagree, 5 = strongly agree)

The gap analysis was done using the above table to examine the discrepancy between what students expected and what students evaluated as service quality. The results demonstrate that if students' impression of the five SERVQUAL dimensions is lower than their expectation, service improvement initiatives are required to raise the standard of university services. Indicating that the university is providing students with good educational services, especially in the areas of empathy and responsiveness, the gap between students' expectations and perceptions is almost nonexistent, which shows that the university is exceeding expectations and leading to high levels of student satisfaction. But service improvement initiatives are required to close the gap in the variables like tangibles, reliability, and assurance. The assurance dimension had the largest gap, measuring (-0.07). The gap score for the item "Students feel safe when dealing with university employees" was the greatest at -0.20, followed by the tangibles dimension at (-0.04) and the item "Visually appealing material associated with the service" at (-0.09). There is evidence that pupils' expectations and perceptions almost exactly match each other because of how little space there is between them.

1. **Conclusion and Future Scope:**

The university is generally doing a fantastic job in the area of education, as evidenced by the very low gap score, which indicates excellent satisfaction among graduate students. It is advised that the institution start the process of applying for ISO 9000 certification in order to build ISO standards of service quality and maintain the level of performance currently demonstrated. It will assist in closing the gap between students' expectations and perceptions and in developing strategies to raise the standard of services. Quality must continue at the forefront of higher education after five years of college in the pursuit of NAAC accreditation and reaching international ranking. (Sein Min, 2012)[21] highlights that while making planning and developing their education programs, one should consider the role and influence of the motives of students in evaluation of service quality. This is supported by (Sharabi, 2013)[23] that all employees who have contact with the students are greatly depends on coordination with top management and its departments. The future scope under this paper shows that service quality measurement can be extended to other engineering and science graduate students of University.

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