Service Quality Gap Analysis: Measuring Students' satisfaction in the tertiary education sector of Bangladesh

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Abstract: Private universities in Bangladesh are shifting their focus towards student expectation and satisfaction, competition, and the realities of today's dynamic business environment. The quest for competitive advantage demands a comprehensive evaluation of educational service quality to provide appropriate feedback on the effectiveness of current state of the service delivery. Despite the importance of measuring service quality in higher education sector, very limited empirical research efforts have focused on the tertiary education sector of Bangladesh. This research is an effort to gain insight into the expectations and perceptions of Bangladeshi private university students.

The study used service quality model (SERVQUAL) to investigate undergraduate and graduate students' perceptions of service quality in the tertiary education sector. A sample of 224 private university students participated in this study.

The findings showed that responsive, knowledgeable and caring services are the most important attributes in regards to student/client expectations. Tangible dimensions were found to be less important to students' assessment of service quality. The study also found that private universities of Bangladesh did not fare well in performing the promised service dependably and accurately.

Keywords: *Service quality, Gap analysis, SERVQUAL, Higher education, Bangladesh.*

Introduction

According to the University Grant commission of Bangladesh (2016), there are 92 private universities in Bangladesh. Service quality, student satisfaction, design and tuition fees of the private universities is an area of concern for regulatory students, parents, authorities, academics and policymakers of the country (Ashraf et al. 2016).The quality of higher education rendered by these private universities is often subject to criticisms by the civil society, academics and policy planners of Bangladesh. Therefore, measuring service quality in higher education of Bangladesh is essential to identify areas of improvement in the tertiary education sector to attract and retain tuition-based returns.

Whilst service quality of university undergraduate and postgraduate students have been extensively measured in different countries (Angell et al., 2008; Duque and Weeks, 2010; Yusoff et al. 2015), private university based research, particularly in the context of Bangladesh has been negligible.

Globally, higher education leaders have had a false sense of security, which was embodied in the principle that little attention need be given to the delivery of services to students. Quality academic programs were obviously a goal of many campus leaders. Faculty in higher education is increasingly sensitive to matters of teaching quality and has depended heavily on end-of-term student evaluations of teaching (Fortson and Brown, 2004). However, researchers such as Tapp et al. (2004) believe that higher educational institutions will benefit from developing relationships with their students, as this will provide a competitive edge.

According to O' Driscoll (2012), quality of student life and other non-institutional factors need to be accounted for in offering a more comprehensive explanation of student satisfaction. Elliot and Shin (2002) further identified that student satisfaction depends of the favorability of a student's subjective evaluation of the various outcomes and experiences associated with education.

From a customer/student retention standpoint, it makes sense for higher education leadership to upgrade service delivery specifications and set high employee performance standards to improve service quality. Before creating any new programs to improve the quality of services delivered to students, tertiary education administrators should learn more about the expectations and perceptions of their students.

The purpose of this study is to use the service quality model to measure undergraduate and postgraduate students' perceptions of service quality in the tertiary education sector of Bangladesh. The study attempted to determine the gaps in terms of students' expectations versus the perceptions of their actual experiences with services delivered by their institutions. The study requires students to compare expectations with their experiences, thereby giving a measure of the customer gap in educational service quality. The gap between expectations and perceptions of customers is the general definition of consumer satisfaction (DiDomenico and Bonnici, 2001). The gap theory method of service quality focuses on determining the level of service quality by subtracting the perceived service score from the customer's expected score for each question in the SERVQUAL questionnaire. The following research questions were used as the basic focus of this investigation: What is the difference between students' expectations and perceptions in the tertiary education sector of Bangladesh?

Literature Review

The Service Quality Gaps Model, also known as the SERVQUAL Model developed by Parasuraman et al. (1985) considers this gap between customer expectations and perceptions as a major restraint for achieving satisfactory levels of service quality and attempts to explain the intangible nature of service quality in more definitional terms. The model identifies four gaps, which leads to the gaps between customer expectations and perceptions. These are as follows:

- Gap 1: This represents the difference between what the consumer expect and what management perceives the consumer to expect.
- Gap 2: This occurs when management is unsuccessful in designing service standards that meet customer expectations.
- Gap 3: This happens when the organisations service delivery systems, that is, its employees are unable to deliver the required service standards,
- Gap 4: This takes place when the organisation through its communications promises customers a level of service performance that the service delivery system is unable to meet.

Furthermore, Gap 5 (the difference between expected and perceived service quality) depends on the size and directions of the first four gaps (Gap 5 = the sum of Gap 1, Gap 2, Gap 3, and Gap 4).

To evaluate the quality of service, consumers compared the service they received with the service they expected (i.e., P - E, with P being the consumer's perceived level of service received and E being consumer expectations prior to the service encounter). A negative number indicated that expectations were not met. A zero indicated consumer expectations were met. A positive number indicated consumer expectations were exceeded (Kurtz and Clow, 2004).

The majority of service quality research has been conducted in fields outside education and was undertaken to verify the use of the SERVQUAL instrument in measuring service quality (Allen and Davis 2000; Boulding et al. 1993; Schwantz 1996). Allen and Davis (2000) conducted a study to link the service quality of an MBA program to recommendations, donations, and identification behaviors of graduate students and alumni. Boulding et al. (1993) used contained 36 items to study expectations and perceptions associated with the delivery of services in an educational setting. Schwantz (1996) used a modified SERVQUAL instrument to compare traditional and non-traditional students' views of service quality at Texas Tech University. The researcher asked students to compare service quality from support staff with that from faculty. Based on the research and studies cited in this section, the researcher determined that SERVQUAL is an appropriate tool for assessing service quality as recommended by Parasuraman et al. (1991) with appropriate modifications and adaptations. Inherent within the SERVQUAL model is the notion that the use of expectation/perception gaps appropriately identifies service areas in need of improvement. The gap analysis methodology can be a useful diagnostic tool in efforts to understand student satisfaction. These conclusions formed the basis for this study.

Methodology

This study was designed to use the service quality model to investigate undergraduate and graduate students' perceptions of service quality in the tertiary education sector of Bangladesh.

The population of the study is comprised of all junior and senior undergraduate students, fifth-year graduates, and all graduate students enrolled in five major private universities in Bashundhara area of Dhaka, Bangladesh during the summer semester of the year 2015.

Using face to face survey method; we randomly selected 318 students to compare their perceptions with their expectations. In total, 224 students returned the completed questionnaire. Gap scores were computed by subtracting a respondent's perception score on an item from his/her expectation score for that item.

Table 1: Sample Size

Sample		
Student Level	**N**	**%**
Fifth-year graduates	35	16
Non-degree graduates	16	7
Undergraduates	87	39
Graduate	86	38
Totals	224	100

As mentioned in Table 1 the sample of this study is comprised of 16% fifth-year graduates, 7% non-degree graduates, 39% undergraduate students, and 38% graduates.

The instrument used in the study was a modification of SERVQUAL (Parasuraman et al. 1988), which was a 44-item self-completed questionnaire that measured consumer expectations and perceptions of service quality. SERVQUAL measures expectations and perceptions of quality along five dimensions of service quality determinants. These five

service quality determinants are tangibles, reliability, responsiveness, assurance, and empathy. The instrument is in the public domain, making it readily available to research uses.

Results and Discussion

The analysis of data is outlined in the following sections. Each question in the survey was analyzed individually for expectations, performance perceptions, and gap scores. The findings are summarized as follows:

Table 2: Summary of SERVQUAL Results (Overall)

SERVQUAL Dimension Expectation-Perception (E-P)	Average Points	Weighted Score	Weighted Score/100	Weighted Average GAP Score
Tangibility (5.29-4.94)	-0.34	11	0.11	-0.0374
Reliability (6.35-4.57)	-1.78	28	0.28	-0.4984
Responsiveness (6.60-4.69)	-1.81	23	0.23	-0.4163
Assurance (6.47-4.99)	-1.48	26	0.26	-0.3848
Empathy (6.39-4.79)	-1.60	12	0.12	-0.192
Total	-7.01	100	1.0	-1.5289
SERVQUAL SCORE:	-1.402		SERVQUAL	-0.30578

Table 3: Student Classification Gap Scores (Perceptions - Expectations)

Student classification	Variables gap scores (P - E)	n	M
Fifth-year graduates	Tangibles	35	-0.226
	Reliability		-1.989
	Responsiveness		-2.045
	Assurance		-1.563
	Empathy		-1.816
Non-degree graduates	Tangibles	17	-0.100
	Reliability-		-1.336
	Responsiveness		-1.316
	Assurance		-1.022
	Empathy		-0.982
Undergraduates	Tangibles	87	-0.440
	Reliability		-1.966
	Responsiveness		-1.952
	Assurance		-1.590
	Empathy		-1.788
Graduates	Tangibles	86	-0.336
	Reliability		-1.597
	Responsiveness		-1.656
	Assurance		-1.427
	Empathy		-1.431
Totals	Tangibles		-0.342
	Reliability		-1.783
	Responsiveness		-1.807
	Assurance		-1.483
	Empathy		-1.598
Total		224	

The findings revealed that non-degree graduates have the lowest mean gap score for all five dimensions. Undergraduates had the largest mean gap score for tangibles and the assurance dimension, and fifth-year graduate students had the greatest discrepancy in mean gap scores for reliability, responsiveness, and empathy mean gap scores.

An interesting finding was revealed when comparing graduate and undergraduate students across the five dimensions. The findings showed that graduate students had lower mean gap scores for all five dimensions than did undergraduates.

In comparing the percentage differences in gap scores for each dimension between undergraduates and graduates, undergraduates' gap scores exceeded those of graduates by 24% in the tangible dimension, 19% in the reliability dimension, 15% in the responsiveness dimension, 10% in the assurance dimension, and 20% in the empathy dimension. This suggests undergraduates are more dissatisfied with service quality than are graduate students. One might have suspected graduate students would cast a more critical eye on the service they received, as related to their experience as consumers. However, in this case, it appears graduate students are more pleased with the service quality than the undergraduates. Generally, graduate students and faculty have a closer relationship. Because of the age based maturity, professional and personal experiences, graduate students may be more comfortable interacting with faculty and staff, and/or may have lower expectations.

Equally interesting are the percentage differences between undergraduates and fifth-year graduate students, which revealed that undergraduates' gap scores exceeded those of fifth-year graduates by 49% in the tangible dimensions. However, in all other dimensions, fifth-year graduates' gap scores were relatively close to the undergraduate gap scores in reliability (-1%), responsiveness (-5%), assurance (2%), and empathy (-2%). This suggests that, except for the tangible dimension, fifth-year graduates and undergraduates had comparable assessments of service quality.

A final percentage difference comparison involves looking at fifth-year graduates and graduate students. Except for the tangibles dimension, fifth-year graduates had higher gap scores in all other dimensions than graduates. As a comparison, fifth-year graduates are 49% more satisfied with the gap in performance perceptions and expectations in the tangible dimension than graduates; however, in the reliable dimension, fifth-year graduates have a 20% larger gap in responsiveness (19%), in assurance (9%), and in empathy (9%).

Conclusion

The result suggests that students' expectations are highest for responsive, knowledgeable, and caring services which are the two key dimensions of service quality naming responsiveness and assurance. The highest expectation scores received compared to other items were "Staff are willing to help," "faculty are willing to help," "faculty have knowledge to answer questions," and "faculty have your best interests at heart".

This indicates the most important factors the student expects from the university are responsive, knowledgeable, and caring service providers. In addition, despite the performance perception scores reaching above 4, it is still quite below of the students' expectations. Also the all the gap scores in the performance were above 1 however a gap of 2.04 in terms of staffs' willingness to help is significantly alarming.

In the tangible dimension all the items showed the lowest scores among the 35 items for expectations. These results indicate that tangibility is perceived to be least important in comparison to the other dimensions, and that students are generally satisfied with this aspect of service quality of their education providers.

Bangladeshi private universities should concentrate on improving its services as perceived performance and expectations items such as "when school promises to do something, it does," "shows sincere interest to solve problem," "staff respond to requests and inquires promptly," "staff give prompt service to," showed widest gaps above 2. It is important to improve these basic service elements and failure to doing so will affect the profitability of the institutions.

The result in the analysis suggests that non-degree graduates have the lowest mean gap score for all five dimensions and fifth-year graduate students had the greatest discrepancy in mean gap scores for reliability, responsiveness, and empathy mean gap scores. Also the largest mean gap score for tangibles and the assurance dimension is found in the scores of the undergraduates.

When comparing the postgraduate and undergraduate students across the five service quality dimension, interestingly it has been found that graduate students had lower mean gap scores for all five dimensions than the undergraduates. This suggests graduates are more satisfied with the service quality compare to the undergraduate students. The reason for these differences indicates that postgraduate students are more mature and understanding due to their professional and personal experiences. Usually, graduate students and faculty/staff have a closer relationship and they may be more comfortable interacting with faculty and staff, and might have lower expectations.

In addition, the differences of gap score between fifth year graduates and the undergraduate students showed that undergraduates have higher gap score than the fifth year graduates. On the other hand, the findings further revealed that the gap score of the fifth year graduate is higher than those of the graduates. All these findings portray that the measurement of the gap score gradually becomes lower with time and experience at the university.

Implications

This study revealed that improving the facilities of the universities will not necessarily improve students' perceptions of service quality or increase student satisfaction with their experiences at the school or with service quality in the school.

However, students are concerned that the universities deliver what it promised to deliver when it promised to deliver it. They should consider establishing service standards and service scripts to improve employee performance in the areas of reliability, responsiveness, assurance and empathy.

The inseparability of services makes it impossible for a student to receive an education without interacting with a secretary, an advisor, or faculty. Service encounters involve the interaction between the customer and the service worker. The universities should make sure that it improves performance in the following areas where most needed:

- When the university promises to do something, it does what is promised.
- Show sincere interest to help solve problems.
- Respond to requests and inquiries promptly.
- Provide prompt and efficient service.
- Provide service within a specific timeframe

All the above statements from the survey had gap scores of greater than 2. The front stage employees (staff), who link an organization with its customers, have the largest gaps. Therefore, they should emphasize on improving the technical and social skills of its employees. Resources should be directed towards making sure that the school makes good hiring decisions with people who value customer satisfaction and service quality. For example, it was apparent that employees needed substantial training to improve the level of performance.

Employees should be cross-trained to address students' questions and to respond promptly to student inquires. Also, the school should assess the requirements of the academic and administrative staff to ensure that they are available during published office hours. Departments should avoid having departmental or committee meetings during faculty office hours. The student services office and faculty advisors should work more closely together to ensure that students are receiving the same messages about program requirements and

certification requirements. All of these improvements would improve service quality and service delivery to the students.

Service performances are extremely complex and require focused attention on the part of the educational institutions. The universities should consider putting in place a process for evaluating service performance and scripting the performance for each service process. To accomplish the task of improving service quality, the performance of employees should be effectively evaluated, and the school should reward excellent service performance.

Limitations & Suggestions for future research

This study was conducted as an overall assessment of service quality. However, a student's experience in the university can be determined by services within the university and outside of the university (e.g. admissions, school/registrar relations, graduation, and student life). A student may have entirely different perceptions depending on the service area under examination. This limitation does not lessen the importance of an overall assessment of service quality, but rather suggests that the study of service quality by service programs and units may complement an overall assessment.

This study relied on a convenience sample of students enrolled in five private universities. A larger sample size would have been more useful to generalise the findings. Future studies should involve comparison of public and private universities, in terms of student and employee satisfaction. Additional studies should seek to determine if there is stability with the results and reliability across institutions and time.

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