Measuring Service Gap of Higher Education in Bangladesh - A Comparative Study between Public University and Private University

Tarannum Islam Shimin

Abstract:

The study investigates the gap between student's expectations and perceptions regarding higher education services in Bangladesh with a special focus on SERVQUAL model along with the following dimensions: Tangibility, Reliability, Responsiveness, Assurance, and Empathy. Thirteen public and private universities were surveyed. Average 20 students were taken as a sample from the universities. As of students perception, the services gap (Expected service - Perceived service), in the dimensions of tangibility, responsiveness, assurance and empathy, is significant because expected service is far below from perceived service in the public universities in Bangladesh. But in the dimension of reliability, the services gap is insignificant because expected service is near about perceived service in the same universities. Again, the services gap (Expected service - Perceived service), in the dimensions of responsiveness, reliability, assurance and empathy, is significant because expected service is far below from perceived service in the private universities in Bangladesh. But in the dimension of tangibility, the services gap is insignificant because expected service is near about perceived service in the private universities. However, this SERVQUAL model is used to find out the services gap as well as ensure the service quality in the public and private universities in Bangladesh and to recommend some strategies to minimize this gap as well as to enhance service quality to benefit students, policy makers, government, service providers and country.

Keywords: SERVQUAL Model, Reliability, Responsiveness, Assurance, Empathy and Tangibles.

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1. Introduction

As higher education systems grow and diversify, society is increasingly concerned about the quality of programs. Much attention is given to public assessments and international rankings of higher education institutions. This study reviewed 13 higher education institutions both public and private universities in Bangladesh, collecting information and setting benchmarks on the quality of their overall services. A questionnaire gave participating universities the chance to set out and analyze their own practices. Although previous studies agree that education quality can be determined by multiple dimensions that help the higher education institutions to design appropriate value propositions, which factor(s) influence the students' perception about these dimensions is relatively unexplored. Some authors focus on students' evaluation of individual classes or the evaluations of individual teachers by students to measure the quality of education (Ginns, P. Barrie, M. (2007). The main purpose of this report is to evaluate the service gap on services provided by public and private universities in Bangladesh. Specifically, the study found significant deviation among the five dimensions of service quality (tangibility, reliability, responsiveness, assurance, and empathy) or SERVQUAL, to measure their relative importance from the student's point of view and measuring service gap, to identify the problem faced by the students of service provided by the universities and to provide important suggestions to overcome the problems.

1.1. Importance of the study

The study will leverage students' intention and brand awareness of Bangladesh learning institutions' quality. This study can play a vital role to create the qualitative students as well as an educated nation. By this research the teachers will able to know the necessity of students and the teachers will try their best to meet the student's want. By doing this they can produce quality products (students). These students can play a vital role to build a better nation. This study would help the management of higher educational institutions to provide better service for the students. The students would then get proper service when management would aware about those services. It can play a vital role to create a better nation. Education is the backbone of a nation. This study would provide direction to future researchers and would help policy makers to consider the importance of service offered to get desired outcomes in shaper of students' satisfaction. This paper helps to find problems in higher educational institution and provides suggestions to overcome the problems. Ensuring service quality of higher educational institution is not only a national issue but it should be viewed as a global issue as because a significant number of graduates from Bangladeshi universities are now working abroad. There are 40 public universities and 96 private universities in Bangladesh. Some of them are newly established. These universities have no adequate facilities and they also have inappropriate infrastructure. However the service quality at university level is questionable due to lack of fulltime faculty members, updated curriculum, infrastructure facilities and library, teaching aid, session jam, students-teachers politics and proper monitoring. In higher educational institutions, service quality is the key parameter in order to improve performance and gain student satisfaction. Quality service has become a major challenge for the universities and it has been recognized that quality service major source of competitive advantage and this quality also leads towards student retention, attraction for new students and positive word of mouth communication. Today, many universities in Bangladesh are being driven towards commercial imposed by environmental challenges and performance measurement of service quality at higher learning institutions is embedded to the matching between students' expectation and their experience of a particular

service. Therefore, now it becomes very important issue to measure service quality of higher educational institutions in Bangladesh.

1.2 Objective of the Study

The main objective of this study is to evaluate the service gap on quality of higher education in Bangladesh. The specific objectives are as following:

- To identify the factor/service(s) incorporated for the quality of higher education
- To know the expectations of the students regarding those benefits/ factors (services) for the quality of higher education (Expectation)
- To identify the existing factors (benefits) are available in the selected Universities (Perception)
- To calculates the deviation between expectation and perception in terms of the benefits/services/factors
- To tests the Hypothesis for justifying the difference between the benefits/services/factors of expectation and perception

2. Literature Review

The review of literature has demonstrated that enormous studies used the SERVQUAL model to measure service quality gap in higher education. Ahmadi, A. A. & Ghelichli, B. (2006) evaluated service quality in Payamenoor University using SERVQUAL model. They got the gap of -0.7, hence shows that students' expectations were higher than services performance. Bradley, R., (2006) measured the service quality of Chinese post graduate students and found that the perception of students lower than actual expectations. Zeshan, A., Afridi, T. & Khan, S. M. (2010) appreciated service quality gap among eight business schools in Pakistan indicating that the students perceived low quality in all five dimensions of service quality (tangibles, reliability, responsiveness, assurance, and empathy) in all institutes. Abu Hasan, H. F., Ilias, A., Abd Rahman, R. & Abd Razak, M. Z. (2008) perused service quality in private higher educational institutions and found that five dimensions and overall service quality had a significant relationship. Legcevic, J. (2009) studied to the students' expectations and perceptions of service quality in the faculty of law at Osijek University in Croatia and found that student's expectation overstepped their perception. Khodayari, F. &Khodayari, B. (2011) examined the perception and expectation of Islamic Azad University in Iran, their results showed that there was a gap between student's expectations and perceptions among the dimensions of the service quality. Mohamad Yusof, A.R., Hassan, Z., Abdul Rahman, S. & Ghouri, A. M. (2012) studied to measure service quality gap in higher education between research universities and non-research universities visualizing that the tangible dimension was most essential, whereas empathy and assurance were least essential and reliability & responsiveness was also equal important as tangible dimension. Al-Alak, B. A. & Alnaser, A. S. M. (2012) examined the relationship between the service quality dimensions (tangibles, responsiveness, reliability, assurance and empathy) and overall service quality gap with undergraduate students' satisfaction in the Faculty of Business at the University of Jordan. Their findings indicated that the assurance and reliability dimensions of service quality were two most important dimensions related to improvement. Amelia, L., Hidayanto, A. N. &Hapsari, I. C. (2011) reported that the quality of IS/IT service at STMK MDP Palembang in Indonesia had gap between expectation and service perception with the highest and lowest gap on the reliability and the assurance dimension respectively. Bagherzadeh, K. M.

&Bagherzadeh, F. (2010) assessed the higher educational services in Tabriz through SERVQUAL model. They found that higher educational institutes in Tabriz failed to deliver quality education as they had gotten negative signs for all the five dimensions of SERVQUAL model.

2.1 An Overview of Higher Education

Higher education is becoming a major driver of economic competitiveness in an increasingly knowledge-driven global economy. The imperative for countries to improve employment skills calls for quality teaching within educational institutions. National and transnational debates like the Bologna Process, direct state regulations or incentives, competition among private and state-owned institutions all prompt institutions to put quality teaching on their agenda. Moreover, national quality assurance agencies push for reflection on the subject, even if their influence is controversial. As higher education systems grow and diversify, society is increasingly concerned about the quality of programs. Much attention is given to public assessments and international rankings of higher education institutions. However these comparisons tend to over emphasize research, using research performance as a yardstick of institutional value. If these processes fail to address the quality of teaching, it is in part because measuring teaching quality is challenging. Institutions may implement evaluation mechanisms in order to identify and promote good teaching practices. The environment of higher education institutions can enhance the quality of teaching through various means. For example, a national policy run by the public authorities or recommendations issued by quality assurance agencies are likely to help university leaders to phase in a culture of quality that encompasses teaching. The OECD Institutional Management in Higher Education (IMHE) study on quality teaching highlights effective quality initiatives and promotes reflection; this may in turn help other institutions to improve the quality of their teaching and thereby the quality of their graduates. The study analyzed the role of the faculty members, the department, the central university and the state. It identified long-term improvement factors for teaching staff, decision-making bodies and institutions. The study is designed to contribute to reflection on outcomes indicators for higher education.

GAP-1: Knowledge gap: The difference between what customers expect of a service and what's management perceives that customer expect.
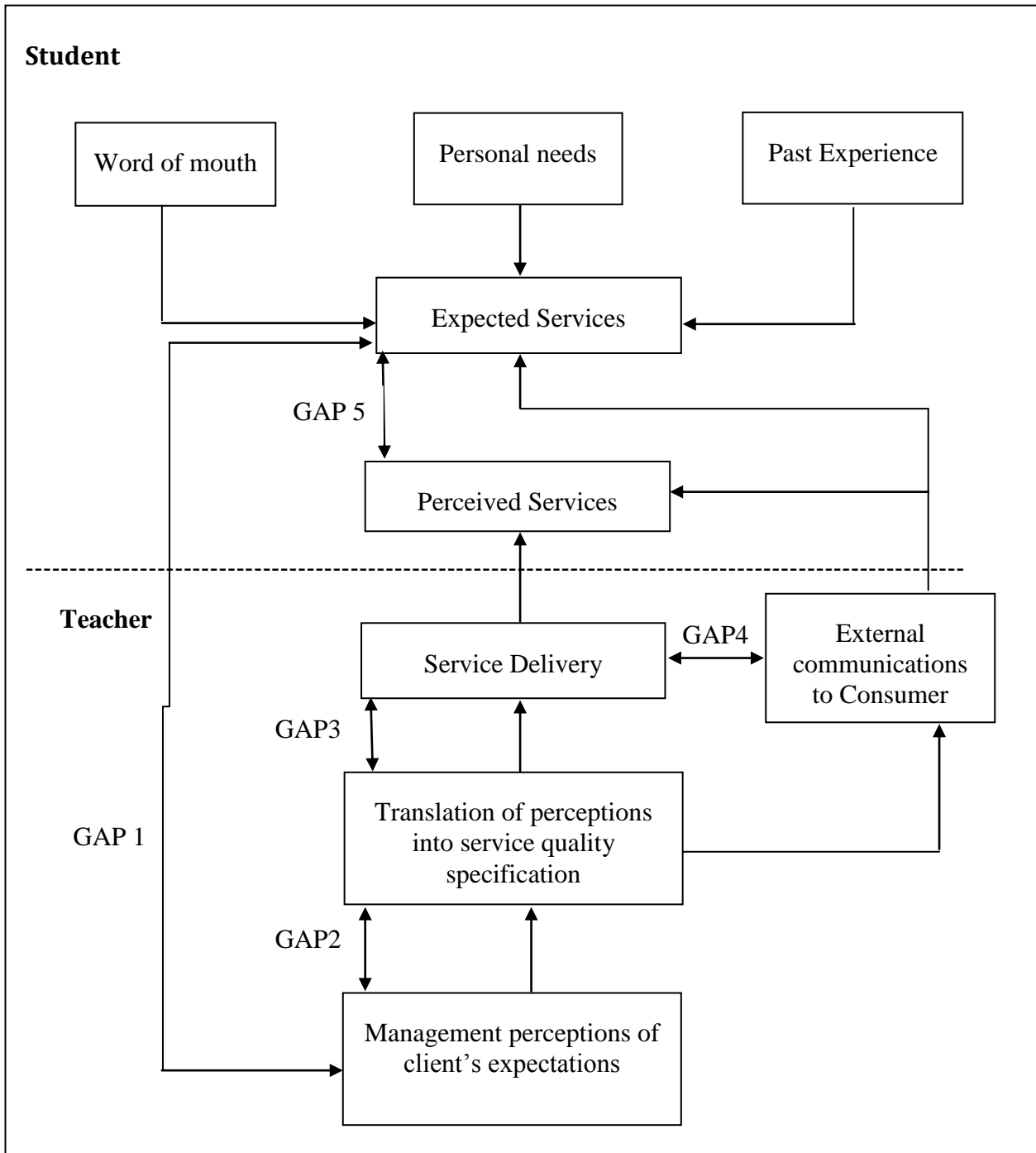
GAP-2: Standard Gap: The difference between what management perceives that customers expect and the quality specifications set for a service delivery.

GAP-3: Delivery Gap: The difference between the quality specifications set for service delivery and the actual quality of service delivery is called delivery gap.

GAP-4 Communication Gap: The difference between the actual quality of service delivered and the quality of service described in the firm's external communications.

GAP-5 Service Gap: The term "service gap" is the difference between a customer's expectations of a service and perception of that service actually delivered called service gap. The more service gap required the more customer dissatisfaction.

2.2 Conceptual Framework of SERVQUAL Model

Source: A. Parasuraman, Valarie A. Zeithamal, and Leonard L Berry (Fall, 1985): p.44.
Fig: Conceptual Framework of service quality gaps

3. Research Methodology

The empirical study is based on qualitative and quantitative research. To conduct the study, primary data were collected through personal interview with a structured questionnaire (Malhotra, 2005).To measure the gap between service expectations and precipitations on different service dimensions in the higher education in Bangladesh, a scale was formed similar to Likert-five points scale, where the number 1 indicates 'strongly disagree' and the number 5 indicates 'strongly agree'.

Table: 1 Research Policy

Research type	The research is conclusive in the form of descriptive design
Research instrument	Self- Administered Questionnaire
Data Source	Primary data for statistical analysis and secondary data for literature review
Data collection mode	Data collection mode is survey in the personal face to face interview
Measurement Technique	Comparative scaling in the form of Itemized rating scaling technique through Five Point Likert-Type scale ranging from 1 to 5 where 5= Strongly agree, 4= Agree, 3= Neutral, 2= Disagree and 1= Strongly Disagree
Sample Size	Students of public universities in Bangladesh were the sample of the study. The sample size was 250 from total 13 universities both public and private. Both Final year students and postgraduate full time students were targeted for this study.
Sampling Technique	Non probability in the form of judgmental sampling
Sample Location	Public & Private Universities in Bangladesh (7 Public & 6 Private Universities)
Data Analysis Tools	Factor Analysis, Frequency Distribution, Correlation, T-test & Hypothesis Testing

3.1 Data Analysis Procedure

The data analysis was done by using for an in-depth investigation of the data. Step-wise regressions were used to test hypothesis and find the mean and standard deviation to know the relationship between independent variables and dependent variable and to assess the service gap. Ms Excel was also used to carry out calculations in some cases. SPSS (Statistical Package for Social Science) software was used for descriptive analysis, correlation, and multiple regression analysis as well.

4. Analysis and Findings

Factors incorporated for the quality of higher education in Bangladesh

Student's perception of higher education quality is heavily influenced by the university they study at, scholarship status, extra-curricular activities, parent's education, age, and previous educational success. This study indicates that the environment created student perception influence the quality of higher education. Here pre-test is done before selecting the 22 factors under five dimensions on SERVQUAL model according to the importance of response respondent. The following table: 2 shows that the highest percentages are given highest priority for selecting the 22 factors.

Table: 2 Factors incorporated for the quality of higher education in Bangladesh

S.L	Factors	Actual Respondent	Response Respondent	Percentage
1.	Degree to which classrooms and study rooms are comfortable	30	30	100%
2.	The degree to which curriculum is up to date	30	30	100%
3.	Library facilities	30	30	100%
4.	Health care facilities	30	30	100%
5.	Registration is timely and error-free	30	30	100%
6.	Transparency of marking system	30	30	100%
7.	Educational background of teachers	30	30	100%
8.	Teaching capability of lecturers proficiency	30	29	96%
9.	Lecturers interest in solving students problem	30	29	96%
10.	Availability of personnel to assist you	30	30	100%
11.	Availability of lecturers to assist you	30	30	100%
12.	Lecturers capacity to solve problem when they arise	30	29	96%
13.	Students complains are addressed smoothly	30	29	96%
14.	Security measures of university	30	30	100%
15.	Communication skills: courses are well taught by the lecturers in university	30	30	100%
16.	Friendly and courteous university staff	30	30	100%
17.	Friendly and courteous lecturers	30	30	100%
18.	Administration has student's best interest at heart	30	30	100%
19.	Access to computer facilities	30	30	100%
20.	Access to study rooms	30	30	100%
21.	Staffs are willing to give students individual attention	30	29	96%
22.	University are fair and unbiased in their treatment of individual students	30	29	96%

Sources: Field data

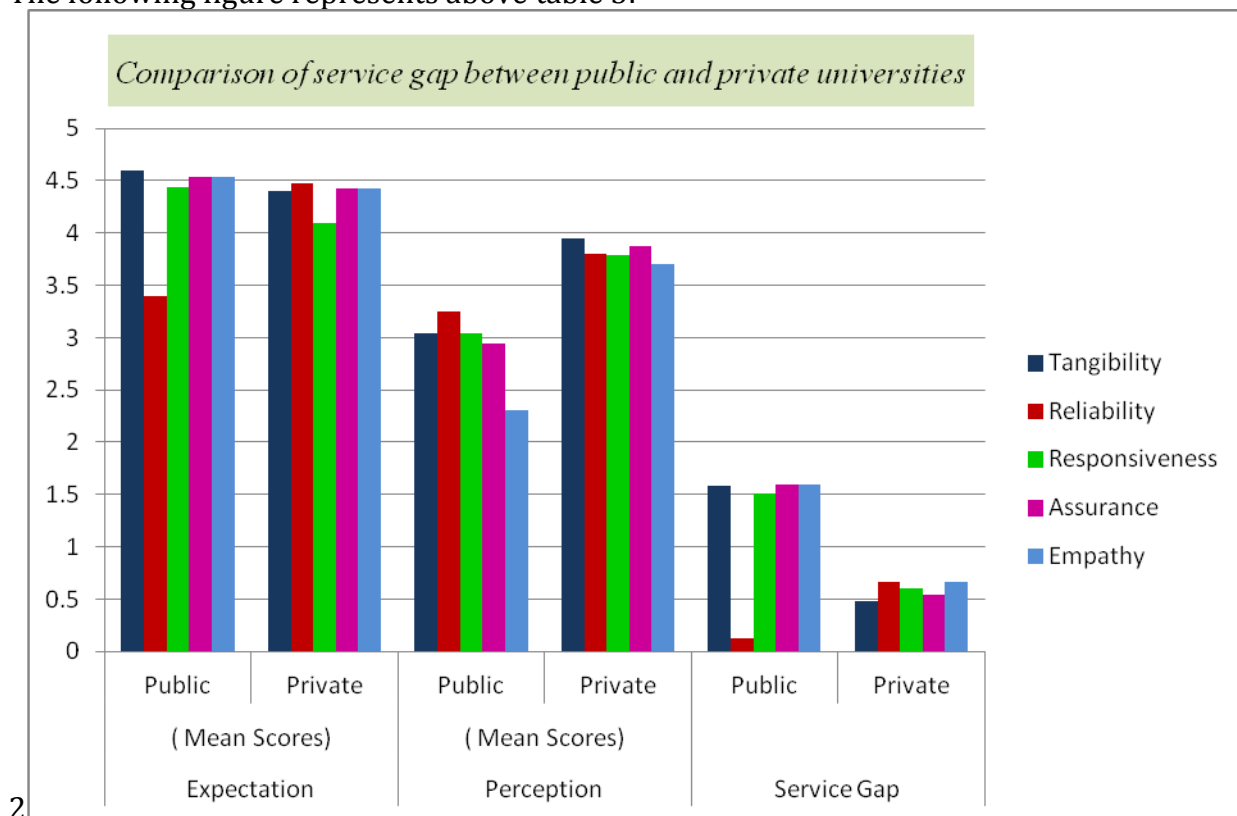**Comparison of Service Gap between Public & Private Universities**

The service gap between expectations and perceptions on different service dimensions of public and private universities have been shown below in table: 3

Table: 3 Comparison of Service Gap between Public & Private Universities

Serial no	Expectation (Mean Scores)		Perception (Mean Scores)		Service Gap	
	Public	Private	Public	Private	Public	Private
1.Tangibility	4.624	4.434	3.042	3.954	1.58	0.48
2.Reliability	3.392	4.473	3.256	3.803	0.13	0.67
3.Responsive ness	4.445	4.394	3.042	3.794	1.51	0.60
4.Assurance	4.54	4.43	2.942	3.886	1.60	0.54
5.Empathy	4.537	4.417	2.904	3.739	1.6	0.67

Source: Field data

The following figure represents above table 3:

Graph 1: Comparison of Service Gap between Public & Private Universities

From graph 1, it is clear that the Tangibility and Empathy dimension has the highest gap based on the student's expectation (mean score) and their perceptions (mean score) in public

universities. The second highest gap is found in the Assurance and Responsiveness dimension. Again, it is clear that the Reliability and Empathy dimension has the highest gap based on the student's expectation (mean score) and their perceptions (mean score) in private universities. The second highest gap is found in the Responsiveness dimension in private universities. So here can say, the dimension of tangibility, responsiveness, assurance & empathy in private university are more advance rather than public university. But reliability has more strong existence in public university.

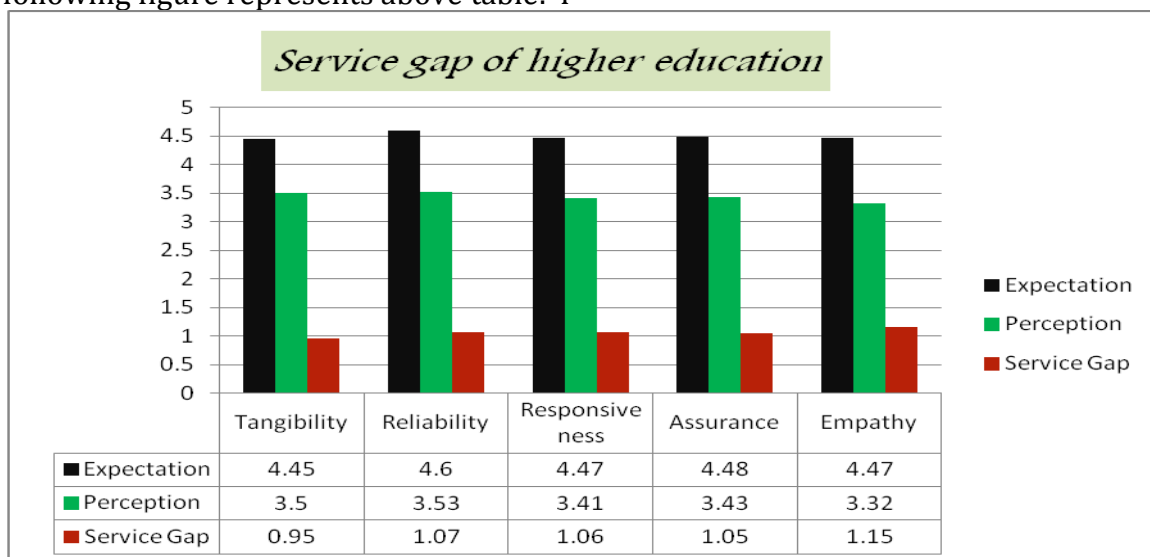**Service Gap of Higher Education in Bangladesh**
Relative position of service quality gap based on five dimensions of higher education in Bangladesh have been shown below in table: 4
Table: 4 Service Gap of Higher Education in Bangladesh

S.L	Dimensions	Expectation (Grand Mean Scores)	Perception (Grand Mean Scores)	Service Gap
1	Tangibility	4.45	3.5	0.95
2	Reliability	4.6	3.53	1.07
3	Responsiveness	4.47	3.41	1.06
4	Assurance	4.48	3.43	1.05
5	Empathy	4.47	3.32	1.15

Source: Field data

The following figure represents above table: 4

Service gap of higher education

	Tangibility	Reliability	Responsiveness	Assurance	Empathy
Expectation	4.45	4.6	4.47	4.48	4.47
Perception	3.5	3.53	3.41	3.43	3.32
Service Gap	0.95	1.07	1.06	1.05	1.15

Graph 2: Service Gap of Higher Education in Bangladesh

Graph 2 indicates that grand mean scores of service expectation and perception on different service dimensions like tangibility, reliability, responsiveness, assurance & empathy are 4.47,

4.6, 4.47, 4.48 & 4.45 and 3.5, 3.32, 3.41, 3.43 & 3.53 respectively in public and private universities in Bangladesh. Here the service gaps are 0.95(tangibility), 1.07(reliability), 1.06(responsiveness), 1.05(assurance) & 1.15 (empathy). Moreover, it has clearly been evident that the service gaps (Expected service - Perceived service) of all the dimensions are far below from perceived service. So there is a significant gap exist among all the dimensions under service quality model.

T-test
For analyzing the data t-test is used where null hypothesis is that there is no
Gap exist between the student's expectation and perception of service delivered by higher education in Bangladesh under five dimensions.

Table: 5 Test Result of Hypothesis

S.L	Dimensions	Hypothesis	Result
1	Tangibility	$P = 0.05 > P_{Critical\ =0.000}$	H_{o1} = Rejected
2	Reliability	$P = 0.05 > P_{Critical\ =0.000}$	H_{o2} = Rejected
3	Responsiveness	$P = 0.05 > P_{Critical\ =0.000}$	H_{o3} = Rejected
4	Assurance	$P = 0.05 > P_{Critical\ =0.000}$	H_{o4} = Rejected
5	Empathy	$P = 0.05 > P_{Critical\ =0.000}$	H_{o5} = Rejected

Recommendations

We know that service gap is the difference the customer perception of service and customer expectations. The service gap is a function of the knowledge gap, the standard gap the delivery gap and the communication gap. As each of these gaps increases or decreases, the service gap responds in a similar manner. To minimize the service gap these recommendations can be followed:

- As the highest gap exists in the Tangibility dimension of the SERVQUAL model, the institutions should concentrate on all the items of this dimension in order to minimize the gap. Government and policy maker should give more emphasis to improve the quality of classroom, updated curriculum, medical facilities and library facilities.
- The second gap exists in the Assurance dimension of the SERVQUAL model; the educational institutions should keep its promises to do something by a certain time.

Teachers and staffs of the institutions should give prompt service to the students and always be willing to help them.

- The third gap exists in the Empathy dimension of the SERVQUAL model; the educational institution should have staffs who give the students personal attention. They should understand the actual need of their students as they are offering services. The educational institutions should have the student's best interest at heart.

- The educational institutions should have available teachers and staffs to assist the students. They should solve the problems of the students in a quick time.

Further research is needed to determine the student's zone of tolerance. This is important for service provider to gradually improve the quality and allocate resource accordingly. Owing to resource restrictions, rules, regulation, as well as policies, in some instances it is almost impossible for public and private universities to provide everything that student's want. Future research should be focus on the service quality from other stakeholders (such as internal customer, government, industries). A comprehensive study would help the faculty to review and beef-up its overall service quality in the education sector.

Conclusion

The study explored the variables associated with student expectations and perceptions with their educational experiences at the Bangladeshi Universities. The questionnaire was reliable. To determine and assess the service gap with the service quality provided by higher educational institutions is not easy but not impossible. The results can be very helpful in minimizing the service gap for management of any educational institution to leverage or enhance the services provided. In this study, the results indicated that students have strong relationship with dependent variable. This study also showed that generally the education level at higher learning institutions in Bangladesh are correlated with the service quality offered. The results also indicate that generally higher learning institutions students are satisfied with the service quality performed by the Bangladeshi learning institutions, i.e. tangibility, reliability, responsiveness, assurance and empathy. Higher educational institutions, which can make quick and better decision, have better potential to increase their market share i.e. number of students. All the findings are important criteria for segmenting the total area and then targeting the most attractive group(s) of students. Future studies in this area can be done considering different sets of socio-cultural dimensions. Future studies can explore similar associations and explain them in different contexts.

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