Service quality and student satisfaction: a case study on private universities in Bangladesh

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Abstract: With an ever growing assortment of educational options, students seek institutions that will provide for them a unique educational experience that they will remember for a life time. In addition, the present student is a customer seeking an educational program that will prepare him/her for a successful career and gainful employment. Since institutional budgets are developed based upon projected enrolments, it is becoming crucial for private institutions to retain the students they recruit. This situation has created a need for continued research in the area of student satisfaction and student retention. A reduction in student numbers, therefore, leads to a reduction in budgeted funds available to operate, maintain, and grow a private institution. This study attempts to examine the relationship between service quality dimensions and overall service quality (tangibility, responsiveness, reliability, assurance and empathy) and students satisfaction. Furthermore, this study is also examining critical factors in service quality dimensions (tangibility, responsiveness, reliability, assurance and empathy) that contribute most to the satisfaction of the students. This study was conducted using a set of questionnaire to 550 Business students from Private University institutions, Dhaka City, Bangladesh. Among the respondents, male respondents were 411, thus representing 75% of the total population, whereas the female respondents were 139 and thus representing 25% of the total population. All the respondents are undergraduate students. Majority of the Student population were between 18 to 24 years of age group. There is a significant correlation among all the constructs with student satisfaction. Factor 1 is by far the most important, accounting for the largest proportion of the variance (34 per cent), with eigenvalues greater than 3.00 (10.596). This factor includes a group of statements related to environment and facilities of the university, and is labeled here 'tangibles'.

Keywords: Service Quality, Student Satisfaction, Private University, Bangladesh

1. Introduction

In today's competitive academic environment where students have many options available to them, factors that enable educational institutions to attract and retain students should be seriously studied. Higher education institutions, which want to gain competitive edge in the future, may need to begin searching for effective and creative ways to attract, retain and foster stronger relationships with students. As a private organization, it has to depend on the interaction and mechanism of the market. As a result, competition to woo as many students as possible or so-called "potential customer" may become more and more intense. To make the matter harder, as a private institution, it does not have the "privilege" to receive any subsidies or financial assistances from the government (see Teo, C. L., [50]).

Student satisfaction has become a major challenge for the universities and it has been recognized that student satisfaction is the major source of competitive advantage and this satisfaction also leads towards student retention, attraction for new students and positive word of mouth communication, as well (Arambewela & Hall [8]). It has been recognized and reported in earlier studies that long term survival and success of the universities depending upon the quality of services and the effort made by them to achieve that distinguishes one university from other universities (Aly and Akpovi [5]; Kanji et al., [30]). In some earlier studies it had been reported that universities were also implementing quality management principles and used these principles as a strategic tool to gain competitive edge (Montano and Utter [34]; Swift [49]) and improved performance (Kanji and

Tambi [29]). Now the concept of quality and customer satisfaction had been evolved in educational sector and got considerable attentions (Ana Brochado [6]). These trends have also been seen in the developing countries like Bangladesh.

The higher education sector in Bangladesh has undergone enormous growth in recent years and it is widely believed that future success in a globalize world economy belongs to those firms that go the extra distance in providing customers with world-class customer service. Universities must continually assess their service. Outstanding service quality as perceived by the customer, can give any organization a competitive advantage (Albrecht [3]). Therefore, perceived service quality could be the product of the evaluations of a number of service encounters and in this case, of a student, these could range from encounters with office staff, to encounters with tutors, lecturers, the head of departments, etc (Hill [27]). As a result, if an organization regularly provides service at a level that exceeds customer expectations, the service will be evaluated as high quality. In contrast, if an organization fails to meet customer expectations, the service will be judge as poor quality (Zammuto et al., [51]).

Generally, students have three main criteria that need to be satisfied with services. These has been labeled as Requisite encounters which essentially enable students to fulfill their study obligations; Acceptable encounters which students acknowledge as being desirable but not essential during their course of study and Functional, an encounter of a practical or utilitarian nature (Oldfield and Baron [37]) According to Lassar, Manolis and Winsor [32]), two most prevalent and widely accepted perspectives on service quality include the SERVQUAL model and the Technical/Functional Quality framework. Gronroos [22]) held that service quality is made up of three dimensions "the technical quality of the outcome", "the functional quality of the encounter" and "the company corporate image". He argued that in examining the determinants of quality, it is necessary to differentiate between quality associated with the process of service delivery and quality associated with the outcome of service, judged by the consumer after the service is performed. Parasuraman, Zeithaml and Berry [43] however listed ten determinants of service quality that can be generalized to any type of service. The ten dimensions include tangibility, reliability, responsiveness, competence, access, courtesy, communication, credibility, security and understanding. In addition, these ten dimensions were then regrouped in the well-known five dimensions in the SERVQUAL model (Parasuraman et al., [41]) which include assurance, empathy, reliability, responsiveness and tangibility. Ijaz et al. [1] used a modified SERVQUAL instrument to evaluate the service quality of four business schools working under public sector universities based on student perceptions. Based upon the present context of service quality in the higher education sector of Bangladesh, the main objectives of this paper is to examine the relationship between service quality dimensions (tangibility, responsiveness, reliability, assurance, empathy and overall service quality) and students satisfaction.

2. Background of the Private Higher Education in Bangladesh

In the 1990s the government realized the need for setting up private universities as it was clear that the public universities in Bangladesh would not be able to meet the increasing demand for higher education. The government recognized and appreciated the initiatives taken, in the early nineties by a group of educationists to establish private universities. After due examination of their proposals, the government felt the necessity of enacting the legal framework under which private universities could work. As a result the National Parliament passed the Private University Act-1992. It was a milestone in the history of higher education in Bangladesh. With the ratification of this Act, the government lost the monopoly of providing higher education. The first government approved private university was established in 1992 quickly followed by several others. In 1998, the private university Act was amended to remove some inadequacies and prevent misuse of privileges granted by the Act. At present, we have 70 private universities in Bangladesh. Of the 70 private universities most are located in Dhaka. The total number of students enrolled in these universities is more than 280822. This number is increasing yearly by 20 percent compared to 5 percent yearly increase in the public universities (Annual report of UGC: 2011).

3. Literature Review

The services literature focuses on perceived quality, which results from the comparison of customer service expectations versus perceptions of actual performance (Zeithaml, [52]). Quality as relating to how good a service is, and not necessarily how large or extensive. The recipients of a service therefore must experience quality, which may also be a property of the service itself and the client, and not necessarily of the provider. Quality can also be seen as relating to the fitness of a service or product to its intended purpose or use, subject to the expectations of the customer, user or public. Quality, therefore, must be in conformity with the customer's requirements or needs. This means that the quality of a service can be a definition of the customer's perception of what is good or bad, acceptable or not acceptable service (Babbar, [10]). Customers are likely to be satisfied when their perception on services provided exceeds their expectations. Service quality in educational industry is defined on the basis of students overall evaluation on the services they received which is part of their educational experience. This covers a variety of educational activities both inside and outside the classroom such as classroom based activities, faculty member/student interactions, educational facilities, and contacts with the staff of the institution.

3.1. Service Quality

The concept of quality had been evolved from "excellence" to "value", to "conformance to specification", and to "meeting and exceeding customer expectations" (Reeves and Bendnar [46]). The service quality in the field of education and higher learning particularly is not only essential and important, but it is also an important parameter of educational excellence. It has been found that positive perceptions of service quality has a significant influence on student satisfaction and thus satisfied student would attract more students through word-of-mouth communications (Alves and Raposo [4]). The students can be motivated or inspired from both academic performance as well as the administrative efficiency of their institution. Ahmed et al. [2] mentioned that service quality is a key performance measure in educational excellence and is a main strategic variable for universities to create a strong perception in consumer's mind. Similarly, Parasuraman, Zeithaml and Berry [42] also concluded that consumer perceptions of service quality result from comparing expectations prior to receiving the service, and their actual experience of the service. Perceived quality is also seen as a form of attitude, related to, but not the same as satisfaction, and resulting from a comparison of expectations with perceptions of performance (Rowley [47]).

Quality issues related to measure the quality of services was a subject to a large number of investigation by the practitioners and academicians over past 25 years due to its intangible and complex nature (Prabha et al., [45]). Prabha et al., [45] further explored that studies on measuring the service quality of educational institutions had also been the focus of increased attentions during the last couple of years due the tough competition among the educational institutions and the demand for excellence in education. Due to the abstract nature of services as compared to products, measurement of service quality and to its characteristics was also difficult and complicated task for the academicians and practitioners (Parasuraman et al., [42]; Carman [14]). Still there is no precise definition of service quality in educational point of view however, according to O'Neill and Palmer [39]), service quality in educational setup had been defined as "the difference between what a student expects to receive and his/her perceptions of actual delivery".

To measure the quality of services on a university campus is one thing; to measure the quality of manufactured goods is another matter. Fitzgerald [19] takes this further and says that "a service ... cannot be objectively measured." Such frustration stems from the difference between services and goods. For example, educational services are intangible and cannot be packaged, displayed or inspected fully by prospective students. Services also have a perishability problem because they cannot be stored for future delivery: when a student cut class, the professor's time is wasted (DiDomenico & Bonnici, [16]).

3.2. Student Satisfaction

Kotler and Clarke [31] define satisfaction as a state felt by a person who has experienced performance or an outcome that fulfill his or her expectation. Satisfaction is a function of relative level of expectations and it perceives performance. Satisfaction is also perceived as the intentional performance which results in one's contentment (Malik, Danish and Usman [33]). According to Sapri and Finch [48]), customers are the lifeblood of any organization, whether private or public enterprise sectors. The satisfaction concept has also been prolonged recently to the context of higher education and is focused on among the community of students. As referred to Oliver and DeSarbo [38], it is define that student satisfaction is "the favorability of a student's subjective assessment of the numerous outcomes and experiences related with education and being shaped continually and repeated experiences in campus life". Elliott and Shin [18] also mention that student satisfaction gives a positive effect on fundraising and student motivation in higher education. On the other hand, according to Elliot and Healy [17] the term student satisfaction is mainly about a short term attitude that results from the evaluation of their experience with the education service received. It is merely a conceptualized identification according to Bhattacharya et al. [12] as a degree to which an organization such as the university and the organizational members in this case referring to the graduates exchanging attributes and values in return, an attempt to satisfy one or more personal needs among themselves. Despite to the various definitions, student satisfaction is also considered as an effective reaction in a time referred to Beerli et al. [13] resulting from the assessment of the teaching services and study support offered to the student by the university. Furthermore, it is also viewed by Astin [9] as a broad construct covering student's subjective experience and perceptions of the value experience consequently resulted as a key outcome in higher education. Harvey, Plimmer, Moon, and Geall [25] also indicate that student satisfaction is a quality enhancement tool which is designed to improve the quality of student experience. In addition, Bailey, Bauman and Lata [11] study shows that student satisfaction can be viewed in a way of associating various multiple factors such as campus community, advertising services, and faculty in the educational environment accounted for the variance in students 'satisfaction.

Gold [21] reported that students are the key customers of academic institutions. Illias, Hasan, Rahman, and Yasoa [28] proposed that student satisfaction has been built continuously with experiences on campus during the college years. Word-of-mouth communication from satisfied students to their friends, acquaintances, and relatives can help many academic institutions to attract new students. These satisfied students could go back to their previous academic institutions to study further or take other courses (Helgesen and Nesset [26]; Gruber, Fub, Voss, and Glaser-Zikuda [23]. Every academic institution must make every effort toward meeting and exceeding student's expectation in order to ensure their sustainable operation and development (Anderson et al., [7]). Student satisfaction plays an important role in determining accuracy and authenticity of the system

being used. The expectation of the students may go as far as before they even enter and engage in the higher education (Palacio, Meneses, and Perez [40]).

4. Methodology

This study was adopted from Parasuraman's SERVQUAL dimensions. The dependent variable in this study is overall student satisfaction that is measured by the overall satisfaction with the HEIs. The independent variable in this study is service quality in higher education that measures the level of satisfaction with service performance. The dimensions included in this variable are tangibility, assurance, responsiveness, reliability, and empathy. The major client group for the present research work will be the students of the Private University of Bangladesh who usually interact with the faculty offices/classrooms/library with sufficient frequency and numbers to permit and justify measurements with the faculty. The student population consists of those who were enrolled at the Private University of Bangladesh. A sample of 550 students will be chosen on a stratified random sampling to represent the population in this present research, based on their respective faculty, level of study and gender. The researcher will be purposefully restricted the sample to those students who are enrolled at the Private University of Bangladesh after 2008. In this way, it will be more likely that the respondents would still remember their previous experience at the University. Hence, most of the questions will be in the 5 point Likert scale format. The consistent use of the Likert scale format in the questionnaire is a good way to easily collect and code the data. This study will be adopted from Parasuraman's SERVQUAL dimensions. The dimensions included in this variable are tangibility, assurance, responsiveness, reliability, and empathy.

5. Results and Discussion

Reliability of the data was checked using Cronbach Alpha which provides a value of 0.85 is more than the acceptable value of 0.70 (Nunnally [35]; Hair et al., [24]; Zikmund [53]) and a value ranges between 0 and 1 and the value close to 1 provides more reliability (Nunnally and Bernstein [36]). As reliability of the data plays a significant role in analyzing the results.

Demographics of the data are reported in Table 1. The participants of this study are the male and female students. Male respondents were 411, thus representing 75% of the total population, whereas the female respondents were 139 and thus representing 25% of the total population. All the respondents are undergraduate students. Majority of the Student population were between 18 to 24 years of age group and only 5% of the population was above 24 years of age.

Students from fourteen different private universities were selected the highest number of students were 10.7% from AIUB, 10.2% from East West University, where as only 4.7% respondents were from ULAB and number of students from

other universities were about 5% to 9%.

Table 1: Demographics of the Study

Gender	Frequency	Percentage	Institution	Frequency	Percentage
Male	411	75%	NSU	52	9.5%
Female	139	25%	Brac	42	7.6%
Total	**550**	**100%**	EWU	56	10.2%
			ASA	45	8.2%
			South East	28	5.1%
Age			AIUB	59	10.7%
< 18	2	0.4%	DIU	29	5.3%
18-20	103	18.7%	NUB	36	6.5%
20-22	294	53.5%	UIU	40	7.3%
22-24	121	22.0%	Green	34	6.2%
24-26	25	4.5%	Uttara	29	5.3%
26+	5	0.9%	ULAB	26	4.7%
Total	**550**	**100.0%**	Darul Ihusan	34	6.2%
			Stamford	40	7.3%
			Total	**550**	**100.0%**

Table 2 provides information regarding correlation between the five service quality dimensions namely; tangibles, reliability, responsiveness, assurance, empathy and student satisfaction. Averages of all the constructs were calculated and then run the correlation among the constructs representing the independent variables. There is a significant correlation among all the constructs with student satisfaction and also among each other at 0.01 significant levels. However, highest correlation between satisfaction and tangibles of the institution which is 54.6%, which indicates tangibles of the institution plays a significant role while selecting the institution for study and it also has a significant impact on student satisfaction. The weakest correlation among student satisfaction and assurance is 48.4%, however, the correlation is positive among them and the p-value among the variables is 0.000 indicating a significant correlation among them at 1% level of significant. It is also observed that p-value between all the variables is 0.000 indicates, and positive correlation among all the variables exists.

The most important finding of the research to be reported here was that the factor analysis. Indeed, as set out in Table 3, five dimensions are identified, and of these, Factor 1 is by far the most important, accounting for the largest proportion of the variance (34 per cent), with eigenvalues greater than 3.00 (10.596). This factor includes a group of statements related to environment and facilities of the university, and is labeled here 'tangibles'.

Table 2: Correlation among service quality dimensions and student satisfaction

Variables	Mean	S.D	Tan	Rel	Res	Ass	Emp	Sat
Tan	4.1036	.563	1					
Rel	4.1291	.551	.722**	1				
Res	3.9824	.572	.629**	.655**	1			
Ass	4.0916	.554	.620**	.665**	.679**	1		
Emp	4.0218	.605	.649**	.641**	.716**	.675**	1	
Sat	4.1600	.683	.546**	.514**	.492**	.484**	.543**	1

**Correlation is significant at the 0.01 level (2-tailed).

Table 3: Results of Factor Analysis

	Factors				
	1	2	3	4	5
Factor 1: Tangibles					
Lighting in class room is very nice	.591				
Appearance of building and ground is nice	.648				
Overall cleanliness	.651				
Temperature of class room and study room are comfortable	.642				
Decoration and atmosphere	.580				
Appearance of personnel is good	.560				
Available of parking	.554				
Computer adequacy provided in lab	.556				
Access to the internet	.523				
Factor 2: Reliability					
Registration is timely and error free		.509			
University keeps records accurately		.551			
Classes take regularly		.515			
Staffs are sincere to solve student's problem		.582			
Provide service in time		.651			
Teaching capability of teachers are well		.612			
Academic staffs are interested to solve student's problems		.596			
Factor 3: Responsiveness					
Availability of			.534		
personnel to assist you					
Availability of teachers to assist you			.594		
Teacher's have capacity to solve immediate problems			.511		
Staff's have capacity to solve immediate problem			.630		
Channels are available for complains			.617		
Queries are deal with efficiently			.535		
Factor 4: Assurance					
Staffs are friendly				.468	
Teachers are friendly				.617	
Teachers are efficient for research				.592	
Staffs has knowledge of university rules and responsibility				.591	
University has enough security				.610	
Factor 5: Empathy					
University administration has student based interest					.615
Computer facility for students is sufficient					.627
Study rooms are available for students					.628
Staffs are willing to give students individual attention					.575
Eigenvalue	10.596	1.581	1.445	1.187	1.075
Explained variance by factor (%)	34.180	5.101	4.662	3.830	3.469

Extraction Method: Principal Component Analysis, **Rotation Method:** Varimax with Kaiser Normalization, Rotation converged in 9 iterations.

The other four factors did not reach eigenvalues of 3.00, and the percentage variance together only accounts for 17 per cent of the total. The second factor is labeled 'reliability'. The items here emphasize the importance of the lecturer in his or her intrinsic role as a teacher, willing to guide, teach and motivate students. The variables included in this factor also provide evidence of the responsibilities of the lecturer towards the students in terms of providing clear instructions, accurate and punctual feedback and private consultation. Factor 3 includes six items and although they only explain 4.66 per cent of the common variance, all the items have loadings, ranging from 0.511 to 0.63. Interestingly, they all relate to the adequate provision of services by the university and hence are labeled here 'responsiveness'. Factor 4 is

labeled 'assurance'. It includes five items and they only explain 3.83 per cent of the common variance. The last factor, although composed of four items and all the items have loadings, ranging from 0.575 to 0.628 and they only explain 3.47 per cent of the common variance.

6. Conclusion

Although measuring the quality of services based on customer perceptions is a complex task, however, to some extent we can get a little understanding about the quality of services provided by the service providers. The concept of quality has also been recognized in the services sector and now the universities are also concentrating and making efforts to gain student satisfaction by delivering quality of teaching and non-teaching services (Petruzzellis et al., [44]). Students from fourteen different private universities were selected the highest number of students were 10.7% from AIUB, 10.2% from East West University, where as only 4.7% respondents were from ULAB and number of students from other universities were about 5% to 9%. Among the respondents, male respondents were 411, thus representing 75% of the total population, whereas the female respondents were 139 and thus representing 25% of the total population. All the respondents are undergraduate students. Majority of the Student population were between 18 to 24 years of age group. There is a significant correlation among all the constructs with student satisfaction. This study shows that there is a significant correlation among all the constructs with student satisfaction and also among each other. Factor 1 is by far the most important, accounting for the largest proportion of the variance (34 per cent), with eigenvalues greater than 3.00 (10.596). This factor includes a group of statements related to environment and facilities of the university, and is labeled here 'tangibles'.

The institutions considered in the study have to make continuous efforts to enhance quality of educational services update the curricula according to the local industry requirements and also the global acceptability. These Institutions need to develop and implement quality standards and system and continuously monitor it in order to increase the quality of education and gain competitive edge on rapidly growing institutes in private sector.

This study was conducted at a local level and only few private sector universities in Bangladesh. Due to shortage of time sample size was not so large, therefore the results of this study cannot be generalized. However, a more comprehensive study can be conducted by taking a larger sample size and including all the educational institutions in the country to develop a comprehensive service quality and student satisfaction model.

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