

Student Satisfaction in Private and Public Universities in Bangladesh

Quamrul H. Mazumder

Department of Mechanical Engineering, University of Michigan-Flint, USA

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ABSTRACT

To compare and contrast the quality of higher education in public and private universities of Bangladesh, a study was conducted, to evaluate student satisfaction in these institutions. The study used a modified Noel-Levitz student satisfaction survey, consisting of twenty two questions which measured student satisfaction levels in four different areas: faculty, curriculum, resources, and campus environment. The survey also measured the students' overall level of satisfaction with the institution. Data collected from different private and public universities showed overall satisfaction level to be higher among private university students than public university students. The data also indicated that students from private universities are more satisfied than those of public universities. Finally, comparison of data from male and female students showed higher level of satisfaction among female students.

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Corresponding Author:

Quamrul H. Mazumder,
Department of Mechanical Engineering
University of Michigan-Flint
303 East Kearsley Street, Flint, MI 48502, USA.
Email: qmazumde@umflint.edu

1. INTRODUCTION

The Private Universities Act of 1992 was passed in Bangladesh. This has allowed for the rise of many private universities in Bangladesh creating more options, as well as competition amongst universities. This is beneficial to students, the public, and the nation. However, there is no regulatory agency with power to control quality and costs. One of the public perceptions is that in Bangladesh, private universities are using business models to maximize profit and therefore, effecting quality of education. On the other hand, public universities are resistant to change their legacy system of education and therefore unwilling to improve the quality. The perception of higher education stakeholders is that some private universities provide better educational services than public universities [1]. Yet it remains to be determined whether student satisfaction levels are higher in private universities. Determining whether student satisfaction levels are higher in private universities, and in which categories (professor, curriculum, university resources and extracurricular activities), is useful for two reasons. One, it may determine whether higher costs at private universities are actually justified. Two, it may provide a framework for other universities to follow. The previous studies available in the literature mainly focused on quality management in general and within institutions, though at least one study noted the lack of quality management in distance education programs [2]. The study presented in this paper attempts to evaluate level of quality in higher education using student satisfaction levels within, and across, universities

As early as the 1980s, principles of Total Quality Management (TQM) were adopted from the business world, and incorporated into institutions of higher education. In regards to TQM, students were thought of as the customers. However, many educators did not welcome TQM, as "the customer is always right" [3]. In the late 1990s, it became clear that, regardless of what educators thought about treating students

as customers, reform in higher education was needed. There was also more demand amongst students to be treated as customers [4]. Though quality assurance (QA) measures have a place in post-secondary education, they often fail to produce meaningful results due to the “lack of rigorous theoretical foundations ... [and] demands of satisfying external agendas,” leading to differences between the “rhetoric” and “reality.” It is clear that more research into student satisfaction levels is needed, as most post-secondary institutions use quality assurance methods to monitor issues of accountability rather than student concerns. The student feedback questionnaire (SFQ) has been used to improve the quality of teaching, to assess the staff, and to meet standards of quality assurance [5].

The Noel-Levitz Student Satisfaction Inventory (SSI) is one of the popular and valid instruments used to assess students' perception of teacher quality and other quality factors in institutions of higher education. Then these perceptions of quality and measures of student satisfaction are used to improve services. The Noel Levitz SSI is widely utilized in North America [6]. In addition, the importance-satisfaction gap is a beneficial feature of the SSI, because it allows universities to ascertain how much a particular level of satisfaction or dissatisfaction actually matters to students. The addition of the importance-satisfaction measurements to the SSI constitutes the reasoning for many researchers, including the author of this study on public and private universities, to use it above other Student Satisfaction Inventories [7]. Because of the importance-satisfaction measurements, institutions can “identify aspects of the students' experience where the institutions are failing to meet their expectations” [8]. Noel-Levitz's 2000 study also recommends that there are “four areas of interaction between importance and satisfaction,” including “high importance/low satisfaction,” which suggests an area commanding prompt attention, “high importance/high satisfaction,” an area which could be beneficial in marketing the institution, “low importance/high satisfaction,” an area in which resources might be reallocated to an area with “greater need,” and “low importance/low satisfaction,” an area which should continue to be monitored [9]. The importance-satisfaction gap has been criticized due to the fact that gap scores sometimes do not effectively predict overall student satisfaction, and because the gap scores in each area may lead to recommendations that are counter-productive [10]. However, they are still useful for managers [11].

In many cases, the SSI is used only to measure satisfaction within a university, not to compare and contrast one university with other universities. This is useful in that administrators can focus on strengths and weaknesses of their institution; however, by assessing the experiences of students at other universities, administrators may be able to improve their competitiveness. There are some studies that have compared and contrasted student satisfaction levels across institutions, by type of institution. Among these are the National Student Satisfaction Reports of 2002 and 2003 [12]. Another study assesses the difference in satisfaction levels and quality control between a campus-based program and a distance education program within a university [13]. One study is particularly relevant to this study of the difference between satisfaction levels at public and private universities in Bangladesh, analyzing the satisfaction levels of students at ten private universities in Bangladesh, and finding that students correlate “faculty credentials, ... campus facilities, research facilities and cost of education ... with quality education,” but that the cost of these private universities is still unreasonable, despite the higher quality of the education [14]. A limited number of studies were performed to evaluate the quality of higher education in Bangladesh as reported in the available literature. Challenges and opportunities related to higher education quality improvement based on a survey of university faculty showed training to improve curriculum and faculty motivation to be two most important factors [15]. These barriers can be eliminated by providing systematic and regular training on teaching and learning methodologies. Comparative analysis of learning styles of students of Bangladesh and USA resulted no significant difference between them as the differences were based on major field of study [16] pursued by individual student. A study on globalization of engineering curriculum in USA explored the existing quality issues and how to address them effectively [17]

The current study compares and contrasts student satisfaction levels at two different private and public universities in Bangladesh, to determine whether the higher costs at private universities are justified, and in what ways these public and private universities might improve.

2. RESEARCH METHOD

The study was performed using the Noel Levitz Student Satisfaction Inventory (SSI), which was found to be internally and externally reliable [17]. Six additional questions were added at the end of the survey, to evaluate students overall satisfaction and expectations, and to solicit comments about the strength and areas of improvement needs of the university. The first step consisted of the computation of mean of scores in four categories (professor, curriculum, university resources and extracurricular activities) for both the Chittagong Veterinary and Animal Sciences University (CVASU), a public college, and Ahsanullah

University of Science and Technology (AUST), a private college. Results were then analyzed using One-Way ANOVA.

Analysis was performed to determine the mean satisfaction rating and the mean importance rating using the satisfaction-importance pairs. One-way ANOVA was performed in order to examine the relationship between the mean scores for importance and satisfaction for professors, curriculum, universities and extra-curricular activities from students in different universities. Paired samples t-tests were performed between importance and satisfaction ratings for each group of survey questions. The survey included 21 questions divided into four different categories: professor, curriculum, university resources, and extracurricular activities. In the survey questions, seven are related to professors, five are related to curriculum, six are related to university services, and three are related to extracurricular activities. A seven point Likert scale was used on two dimensions for each of the questions as follows: (1) not important at all, (2) not very important, (3) somewhat unimportant, (4) neutral, (5) somewhat important, (6) important, (7) very important, and N/A – not applicable. One of the dimensions was importance, and the other dimension was satisfaction level of the students. For example, one of the questions asked whether professors are fair and unbiased in their treatment of individual students. Students were asked to rate how important the professors' fair and unbiased treatment was to them, and their level of satisfaction with it.

Each student's responses to questions were averaged for each of the four categories for importance and satisfaction. For example, the average of responses to the first seven questions was used as importance and satisfaction measures of students' attitude toward the professor, resulting in four different average values for level of satisfaction for each student. Average values falling between zero and seven were used in the analysis of the data. The statistical analysis compared the relationship between importance and satisfaction for each category. Comparative analysis was performed between public and private universities, and between male and female students.

At the end of the survey questions, comments from student were collected using six additional questions: the additional questions includes a) how the university was able to meet expectations, b) overall satisfaction with the university, by percentage of 0 to 100 (%), c) whether the student will recommend this university to others, d) whether the current university was their first choice for admission, e) what was the best experience at the institution, and f) what would the student like to see changed. The last two questions were free response questions, and were used in order to determine the strengths and weaknesses of the university.

3. RESULTS AND DISCUSSION

The results of the current study are summarized alongwithcomprehensive discussion. The anlaysis results are presented using appropriate figures and tables for proper interpretation [2], [5].

3.1. Analysis of the Data

The analysis presented in this paper is based on 216 survey responses, out of which 96 responses were from a public university, and 120 from a private university. Data collected from Chittagong Veterinary and Animal Science University (CVASU), a public university and Ahsanullah University of Science and Technology (AUST), a private university located in Dhaka, the capital of Bangladesh. A few students choose not to respond to some questions, thereby showing different n- values in the analysis. Data was collected from first year to final year students in an effort to represent a wide range of students with different levels of experience at the universities. The data sets included 62 first year students, 45 second year students, 33 third year students, 76 fourth year students, with 13 not reporting their year level. Out of 216 students, 159 were male and 47 were female students, with 10 not reporting gender.

3.2. Limitations of the Study

It is important to note that there were some limitations to this study. One is that the methodology was influenced by lack of complete data. When students failed to rate a particular question in each category, the response was not included. Scale scores not reported were recognized as null value and were not included in computation. As the number of null responses were small, the influence on overall result was negligible. Another limitation is the sample size of number of universities. While care was taken to survey diverse students from a number of different public and private universities, inclusion of data from more universities could improve validity of the results.

3.3 Results

Statistical analysis was performed using SPSS software, and the results are presented in Tables 1-5 in the following section.

Table 1. Importance and Satisfaction in Public and Private Universities (N=216)

Criteria		University (Public) CVASU (Private) AUST	Mean	95 % Confidence Interval for Mean		F	Sig.
				Lower Bound	Upper Bound		
Professor	Importance	CVASU	5.81	5.59	6.02	0.08	0.768
		AUST	5.85	5.66	6.04		
	Satisfaction	CVASU	3.54	3.31	3.76	87.83	0.000
		AUST	5.02	4.81	5.23		
Curriculum	Importance	CVASU	5.65	5.41	5.88	6.39	0.012
		AUST	6.03	5.84	6.22		
	Satisfaction	CVASU	3.84	3.59	4.09	55.66	0.000
		AUST	5.03	4.83	5.23		
Campus Resources	Importance	CVASU	6.19	6.00	6.38	4.48	0.035
		AUST	5.90	5.71	6.09		
	Satisfaction	CVASU	3.99	3.75	4.22	25.03	0.000
		AUST	4.84	4.60	5.07		
Extra-curricular Activities	Importance	CVASU	5.60	5.33	5.87	0.22	0.639
		AUST	5.69	5.43	5.94		
	Satisfaction	CVASU	3.22	2.93	3.50	34.03	0.000
		AUST	4.40	4.12	4.68		

The relationship between importance and satisfaction of 216 students is presented in Table 1 for all four categories. Among all four categories, campus resources were considered to be most important (mean=5.90 and 6.19), followed by curriculum (mean=5.88 and 6.03), professor (mean=5.81 and 5.85), and extracurricular activities (mean=5.60 and 5.69). Students' response showed lower levels of satisfaction in all four categories: Professors (mean=3.54 and 5.02), curriculum (mean=3.84 and 5.03), campus resources (mean=3.99 and 4.84) and extracurricular activities (mean=3.22 and 4.40). The role of professors was rated as important, with scores ranging between 5.59 and 6.04, with a maximum possible score of 7.0. However, the level of satisfaction with professors was lower (mean=3.31 and 3.76) in public universities, contrasted with private universities (mean=4.81 and 5.23). The difference between importance and satisfaction was calculated to determine whether there is an agreement between them. If students reported a category as very important, are they also highly satisfied? The difference between importance and satisfaction was greater among public university students.

Table 1 shows the results of one-way ANOVA for importance and satisfaction of each group of survey questions (professor, curriculum, campus resources, and extracurricular activities) for both public and private universities. Results showed no significant differences in importance of professor and extracurricular activities between public and private universities (for professor, $p=0.768$, for extra-curricular activities, $p=0.639$). However, significant differences were observed in curriculum ($p=0.012$) and campus resources ($p=0.035$). Students at both universities felt these categories to be equally important to them. However, significant differences were observed in level of satisfaction between public and private universities in all four categories (professor: $F=87.38$, $p=0.000$; Curriculum: $F=55.664$, $p=0.000$; Campus resources: $F=25.038$, $p=0.000$; Extracurricular activities: $F=34.03$, $p=0.000$).

Table 2. Overall Student Satisfaction in Public and Private Universities (N=216)

Criteria	Name of University	Mean	95% Confidence Interval of Mean		F	Sig.
			Lower Bound	Upper Bound		
How Well the Expectations were met	CVASU (public)	2.33	2.65	2.93	23.02	0.000
	AUST (private)	2.79	2.48	2.68		
Overall Satisfaction	CVASU (public)	54.55	51.68 %	59.41 %	17.01	0.000
	AUST (private)	66.70	63.03 %	70.38 %		

Two of the six free response questions at the end of the survey were analyzed using ANOVA, as shown in Table 2. These questions were an important determinant of quality and student satisfaction, as responses were sought about how well the universities were able to meet their expectations, and their level of overall satisfaction. There was a significant difference observed in the responses to these two questions, between public and private universities. However, the level of overall satisfaction was higher in private universities than public universities.

Table 3. Importance and Satisfaction between Male and Female Students (N=206)

Criteria	Gender	Mean	95 % Confidence Interval for Mean		F	Sig.	
			Lower Bound	Upper Bound			
Professor	Importance	Male	5.83	5.65	6.00	0.27	0.603
		Female	5.73	5.47	5.99		
	Satisfaction	Male	4.43	4.21	4.64	0.09	0.765
		Female	4.36	4.06	4.66		
Curriculum	Importance	Male	5.88	5.70	6.05	0.28	0.596
		Female	5.78	5.43	6.12		
	Satisfaction	Male	4.52	4.30	4.73	0.31	0.576
		Female	4.64	4.34	4.93		
Campus Resources	Importance	Male	6.04	5.88	6.19	0.20	0.655
		Female	5.96	5.65	6.27		
	Satisfaction	Male	4.42	4.21	4.63	2.66	0.104
		Female	4.77	4.45	5.08		
Extra-curricular Activities	Importance	Male	5.63	5.41	5.84	0.35	0.557
		Female	5.76	5.39	6.12		
	Satisfaction	Male	3.83	3.58	4.08	2.87	0.092
		Female	4.27	3.85	4.68		

Comparison between importance and satisfaction of male and female students at both public and private universities are presented in table 3. The number of respondents was 206 compared to 216 total responses, as 10 students did not respond to the gender question. Among all four categories, campus resources were considered to be most important by both male (6.04), and female (5.96), students followed by curriculum. Satisfaction level was highest for curriculum (male: 4.52, Female: 4.64) followed by campus resources (male: 4.42, Female: 4.77). Student satisfaction level was third for professors' contribution to the learning process (male: 4.43, Female: 4.36). In general, female students are slightly more satisfied than the male students. Difference between importance and satisfaction level was highest for male students in extracurricular activities category (1.80), and lowest for female students in curriculum category (1.14). This can be interpreted as, female students are more satisfied with the curriculum, and male students are less satisfied with extra-curricular activities.

Results of one-way ANOVA for importance and satisfaction of each group of survey questions (professor, curriculum, campus resources, and extracurricular activities) between male and female students is presented in Table 3. No significant difference in importance and satisfaction was observed among the four categories. There was also no significant difference in how well the universities were able to meet students' expectations. However, the overall satisfaction level showed a significant difference ($p=0.007$). The female students were more satisfied than the male students in both public and private universities. Students at both universities felt these categories to be equally important to them. However, significant differences were observed between level of satisfaction between public and private universities in all four categories (professor: $F=87.38$, $p=0.000$; Curriculum: $F=55.664$, $p=0.000$; Campus resources: $F=25.038$, $p=0.000$; Extracurricular activities: $F=34.03$, $p=0.000$).

Table 4. Overall Student Satisfaction between Male and Female (N=215)

Criteria	Gender	Mean	F	Sig.
How Well the Expectations Met	Male	2.57	2.01	0.158
	Female	2.74		
Overall Satisfaction	Male	60.03	7.50	0.007
	Female	69.15		

Two of the six free response questions at the end of the survey were analyzed using ANOVA, as shown in Table 4. These questions were an important determinant of quality and student satisfaction, as responses were sought about how well the universities were able to meet their expectations, and their level of overall satisfaction. There was a significant difference observed in the results from both of these two questions, between public and private universities. However, the level of overall satisfaction was higher in private universities than public universities.

Table 5. Paired Sample t-test Between Importance and Satisfaction

	Criteria	Mean	t	DOF	Significance (2 tailed)
Public	Professor	2.29	14.76	96	0.000
	Curriculum	1.84	10.20	96	0.000
	Campus Resources	2.22	14.28	96	0.000
	Extracurricular Activities	2.46	11.95	95	0.000
Private	Professor	0.86	8.91	117	0.000
	Curriculum	1.03	9.06	117	0.000
	Campus Resources	1.13	8.87	117	0.000
	Extracurricular Activities	1.35	7.81	117	0.000

Paired sample t- tests between importance to satisfaction for each category of survey questions (professor, curriculum, campus resources and extracurricular activities) are summarized in Table 5. The analysis was performed for both a public (CVASU) and a private university (AUST) to determine whether any significant difference exists. As shown in Table 5, significant differences were observed in all four categories, in regards to satisfaction levels between public and private universities. Based on the results in the previous tables, students of private universities appear to be more satisfied than those of the public universities.

4. CONCLUSION

A survey was conducted among 216 students from one public university and one private university in Bangladesh, using a modified Noel-Levitz student satisfaction survey. The survey questions were grouped in four different categories, as professor, curriculum, campus resources and extracurricular activities. The twenty two question survey used a seven point Likert scale, with two different responses for each question. Students were asked to rate the importance of each of the four categories and their satisfaction with current level of university services.

The survey also included questions to measure whether the students' expectations were met, and their overall satisfaction with the university, measured as a percentage. Paired sample t-test and ANOVA results revealed that students from Chittagong Veterinary and Animal Sciences University (public) and Ahsanullah University of Science and Technology (private) hold similar opinions about the importance of professors, curriculum, campus resources, and extra-curricular activities. However, students at the private university were more satisfied than at the public university, in all four categories. Female students expressed higher levels of satisfaction than the male students in both public and private universities. One of the reasons may be the expectations of male students are higher than the female students.

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BIOGRAPHY OF AUTHOR



Dr. Quamrul Mazumder is an Associate Professor of Mechanical Engineering at University of Michigan-Flint, USA. His research areas include metacognition, student motivation, engagement, teaching and learning styles of student in USA and Asia. As an international consultant on teaching and learning methodologies, he conducted seminars and workshop in USA, Canada and other countries around the world. Dr. Mazumder is a Fulbright scholar in the engineering education discipline. His current research includes development of quality models for higher education across the world.