Drivers of Students' Satisfaction at Tertiary Level in Bangladesh: A Holistic Approach

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Abstract

This study examines the various factors of education service which can influence students' satisfaction at the tertiary level in Bangladesh. The sample size consisted of 373 students from a private university in Bangladesh. The study focuses on both the tangible and intangible elements of education, namely "Organizational structure and facilities," "Faculty and teaching," "Branding and promotion," "Industry links," "Fees structure," "Financial assistance," and "Skills development and extracurricular activities." The results of the regression analysis reveal that all the seven independent variables have a positive impact on students' satisfaction, nevertheless, only four of the independent variables were found to have a significant effect, namely "Organizational structure and facilities," "Faculty and teaching," "Branding and promotion," and "Industry links." The findings from this study will assist educators and policymakers to take appropriate initiatives in order to produce high quality graduates in Bangladesh by satisfying all the needs of their customers.

Introduction

Dhaka, the capital city of Bangladesh is renowned as having the highest number of universities within a city area. It also stands out as having the highest number of universities among capital cities worldwide, with one university per 5.38 square kilometers. Nine public universities and 48 private universities are currently situated in Dhaka's 306.4 square kilometers (Jashim & Siddiqui, 2019).

The current public universities in Bangladesh that are autonomous in their functions yet funded by the government are failing to cater for the growing needs of the large number of students in Bangladesh. Hence, the private sector began to offer tertiary education with private universities starting to appear in Bangladesh during the 1990s, following the establishment of the Private University Act of 1992. Currently, all private universities in Bangladesh are operated according to the Private University Act of 2010. At present there are 104 private universities in Bangladesh that are monitored by the University Grants Commission (2019), a governmental authority responsible for regulating the structures and activities of higher education academic institutions throughout Bangladesh.

The private higher education sector in Bangladesh has flourished in response to the global academic trends, and has been noted for its impressive rate of growth with a continuously increasing number of private universities operating in response to the growing numbers of students in Bangladesh. Attracting and retaining students has become increasingly important within this competitive sector. Therefore, student satisfaction has become a significant factor for private institutions, as it affects their institutional student enrolment rates (Douglas et al., 2006; Ganyi, 2016; Palmer, Eidson, Haliemun, & Wiewel, 2011). A number of factors go into determining student satisfaction within education institutions including faculty performance, teaching methods, organizational structure and facilities, university image, industry links, financial cost, and skills development.

The current study aims to explore the factors that can influence students' satisfaction at the tertiary level in Bangladesh. Accordingly, the primary purpose of the study is to reveal those factors that students most identify as the influencing determinants to their satisfaction within higher education studies in Bangladesh. This study has the potential of directing higher education institutions to the pertinent factors that should be taken into consideration in the provision of quality education to students in Bangladesh, and in attaining the satisfaction of current students in order to boost the rate of student enrolment in the future. The study may also benefit academicians and policymakers through the provision of valuable information about the changing demands and needs of students in Bangladesh, and thereby facilitating the molding and reshaping of tomorrow's institutions.

Literature Review

In general, satisfaction refers to an emotional reaction associated with the experience of a product or service (Spreng & Singh, 1993). In the context of the current study, student satisfaction may be defined as a function arising from a relative level of experiences and perceived quality of educational services offered by an institution (Carey, Cambiano, & De Vore, 2002; Mukhtar, Anwar, Ahmed, & Baloch, 2015). Elliott and Shin (2002) defined student satisfaction as "the favorability of a student's subjective evaluation of the various outcomes and experiences associated with education. Student satisfaction is being shaped continually by repeated experiences in campus life" (p 198). In other words, student satisfaction may be referred to as a short-term attitude derived from a value judgment of

students' educational experience, and of the institutional facilities and services on offer (Weerasinghe, Lalitha, & Fernando, 2017). Relating this to the role of studentship, Bean and Bradley (1986) defined student satisfaction as "a pleasurable emotional state resulting from a person's enactment of the role of being a student". Student Satisfaction is a state of mind, a feeling which arises as a student progresses through their academic course of study, and the experiences and outcomes that fulfilled their expectations (Kotler & Clarke, 1987).

Student satisfaction can thus be deemed to be the resulting emotional effect of students' academic experiences and the subjective evaluation of those experiences. Researchers have identified a number of factors that contribute to the generation of such positive (or negative) feelings of students towards higher education institutions. Appleton-Knapp and Krentler (2006) provided two factor types that can influence students' satisfaction within the higher education institution they attend. These factors are "personal factors" and "institutional factors." Personal factors that can affect student satisfaction are their age, gender, choice of learning, their academic results, and potential employment. Whereas, institutional factors include teaching style, quality of instruction, active instruction, feedback, and clarity of expectation as the determinant factors of students' satisfaction within an institution. A study conducted by Garcia-Aracil (2009) in 11 European countries revealed that course content, learning tools, teaching and learning materials, teaching quality, availability of books from a library, and communication with fellow students etc. can significantly affect student satisfaction levels. Moreover, students' satisfaction affects various academic outcomes such as grade achievement, student retention at the institution, and the institution's graduation rates (Jamelske, 2009; Pascarella & Terenzini, 2005). Some of the factors that are recognized by the researchers as influential determinants of generating satisfied students are service quality, university image, faculty performance, institutional facilities, teaching environment, and teaching methods.

Students' satisfaction in Bangladesh

In Bangladesh numerous studies have been conducted with regards to the factors influencing students' satisfaction, as well as their loyalty to and retention by higher educational institutions. A substantial number of studies have testified to a positive relationship between students' satisfaction and students' loyalty toward their institution. Hossain, Hoq, Sultana, Islam, and Hassan (2019), in their study on 182 students from different public and private universities in Bangladesh, found that faculty skills and expertise as well as the design of course curricula were two major factors that influence students' satisfaction. Das and Haque (2013) conducted a study with over 660 students from 11 different public and private universities in Bangladesh, and their findings revealed faculty performance to be a significant factor influencing students' satisfaction at the tertiary level of education. Regularity of classroom teaching, proper preparation for delivering class lectures, fair evaluation and grading processes, followed by teachers' and student counseling hours were found to be some of the determinants of high quality faculty services that can positively influence students' satisfaction (Das & Haque, 2013). Students' dissatisfaction can cause students to dropout from their selected higher education studies, with several factors deemed responsible for students' dissatisfaction.

A study conducted with over 400 students at a private university in Bangladesh, revealed that students were highly dissatisfied with the available cafeteria services, as well as a lack of extracurricular activities. Teaching can also significantly impact on students' satisfaction (Ullah et al., 2019). Students of private universities in Bangladesh generally

experience lower levels of satisfaction in terms of the availability of courses on offer, the educational costs, and the availability of library resources (Mazumder, 2014). According to Hossain et al. (2019), the relationship between students and faculty must be improved in order to address students' dissatisfaction at the tertiary level in Bangladesh.

Haque, Das, and Farzana (2011) conducted a study with 300 students from 10 public and private universities in Bangladesh in order to assess the quality of student services received at these higher education institutions. Classroom comfort such as the size of a classroom, the multimedia and Internet connections in the classroom, supportive services for arranging co-curricular and extracurricular activities such as debating, various social and cultural clubs, adventure etc., and laboratory facilities were identified as significant determinants of quality student services in Bangladesh. Moreover, campus infrastructure including a campus canteen, Internet and computer facilities, and sports facility were also identified as significant drivers of satisfaction and student retention in private higher educational institutions in Bangladesh (Haque et al., 2011). Teaching quality was identified as the most important determinant of students' satisfaction at higher educational institutions in Bangladesh (Thornton, 2006). However, students' satisfaction level in Bangladesh can also vary based on gender, class, and location. Male students, students from urban areas, and students from middle-income families tend to exhibit higher levels of satisfaction toward their academic institution in comparison to their peers (Hossain et al., 2019).

Conceptual Framework

According to Bateson and Parsons-Chatman (1989), higher education is a professional service that has three major characteristics, namely intangibility, inseparability, and variability. There are certain tangible elements associated with education such as classroom facilities, an institution's campus, or their laboratories etc. On the other hand, there are intangible elements to education which can be quite difficult to evaluate such as brand image, links to industry etc. The primary responsibility of educational service providers is to manage both the tangible and intangible elements effectively so that proper signals are conveyed to the market and customers about the quality of their service. In the current study, we aim to identify the drivers of students' satisfaction at a private university in Bangladesh. We believe that the best way is to adopt a holistic approach by taking account of both tangible and intangible elements to higher education.
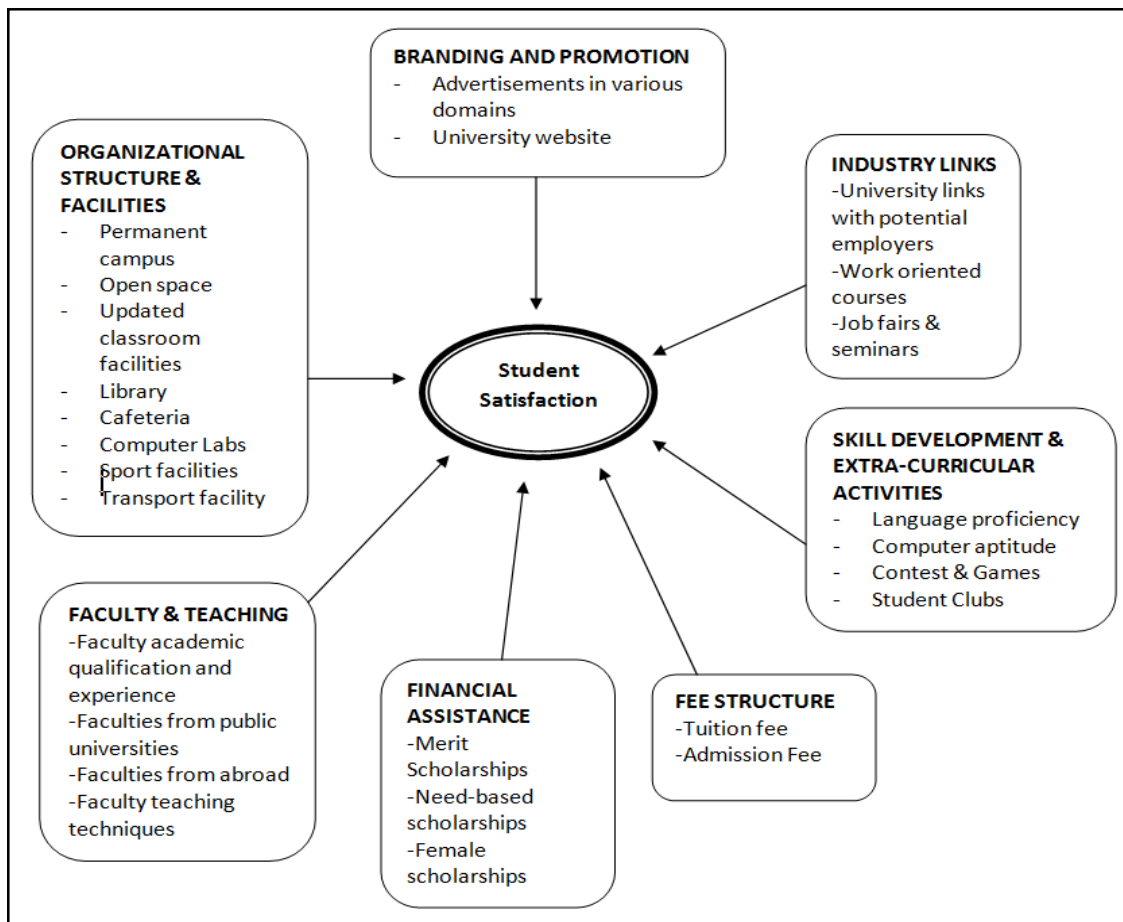
Figure 1. Conceptual model of drivers influencing students' satisfaction

If students find that they are not suited academically to the environment of their institution, they will have lower levels of satisfaction with that institution (Bean & Bradley, 1986). Facilities provided by the -university, financial assistance and tuition fees, as well as curriculum and advisory services can significantly affect students' satisfaction (Farahmandian, Minavand, & Afshar, 2013). Thus, in the current study we devised a conceptual framework where the satisfaction of a student undertaking their higher education at a private university in Bangladesh can be influenced by several institutional factors, as shown in Figure 1.

Hence, it can be hypothesized that:

H1: Organizational structure and facilities can positively impact students' satisfaction

The physical facilities of a university are a significant factor that can determine a student's decision in selecting a particular university (Douglas et al., 2006). The facilities and various services such as computers, libraries, and transportation etc. provided by a university can greatly impact a student's choice of university (Price, Matzdorf, Smith, & Agahi, 2003). Students' perception of service is affected by various physical features such as classrooms, lighting, the physical appearance of the buildings, cleanliness etc. (Sohail & Shaikh, 2004). Hence from these statements it can be hypothesized that better organizational structure and available facilities can positively impact students' satisfaction in higher education.

H2: High quality of faculty and teaching can positively impact students' satisfaction

Students' perception of quality education can be significantly affected by faculty performance, including their delivery of class lectures, the teacher-student relationship, and the provision of feedback to students on their assignments and tasks (Douglas et al., 2006; Hill, Lomas, & MacGregor,

2003). Hence, academic service is the most significant service quality aspect that impacts on students' satisfaction (Muhammad, Kakakhel, & Shah, 2018). Moreover, the more a student has contact with faculty members, their peers, and with other members of the institution, the more likely they will be satisfied with the academic institution (Weir & Okun, 1989). Therefore, based on these arguments in can be hypothesized that high quality of faculty and teaching can positively impact students' satisfaction in higher education.

H3: Financial assistance is positively related to students' satisfaction

Institutional scholarships strongly predict the persistence and progression of students within academic institutions (Ganem & Manasse, 2011). Therefore, based on this argument it can be hypothesized that financial assistance is positively related to students' satisfaction.

H4: Strong brand image and promotional activities can positively impact on students' satisfaction

The image of a university plays an influential role in not only determining the students' choice, but also in the retention of existing students at a particular university (James, Baldwin, & McInnis, 1999). A university's image affects their students' satisfaction and loyalty both directly and indirectly (Alvis & Rapaso, 2006; Hanssen & Solvoll, 2015). Therefore, based on these arguments it can be hypothesized that brand image is positively related to students' satisfaction.

H5: Creation of strong industry links enhances students' satisfaction

The industrial links and placement opportunities provided by an academic institution play a strong role in influencing the perception of educational service quality, and also in attracting new students (Osman & Saputra, 2019). Therefore, it can be hypothesized that links to industry that are offered by an academic institution is positively related to students' satisfaction.

H6: Skills development and extracurricular activities enhances students' satisfaction

As professional experience and academic performance are both influenced by extracurricular activities provided by an academic institution, it is suggested to enhance the quality of extracurricular activities (Muscalu & Dumitrascu, 2014). Therefore, it can be hypothesized that providing opportunities for greater skills development of students can positively enhance students' satisfaction.

H7: Affordable fee structure enhances students' satisfaction

Although a high quality campus environment plays a key role in creating positive perceived value among students, high educational costs and tuition fees in particular can result in low value perception amongst higher education students (Neves & Hillman, 2017). The cost of services can significantly influence the trust of the customers (Garbarino & Lee, 2003). Price and service quality perceived by customers determine their level of satisfaction (Aga & Safakli, 2007). Therefore, from these arguments it can be hypothesized that an affordable fee structure can positively enhance students' satisfaction.

Methodology

This Methodology section is divided into four subsections: Target group, Sampling technique, Data collection, and Analytical technique.

Target group

The survey was conducted with 373 undergraduate students enrolled in the Bachelor of Business Administration program at one of the reputed private universities in Bangladesh.

Sampling technique

The selection of the participants for the study was based on simple random sampling (SRS) technique. From a total population of 12,000 students, 373 students were selected as the final sample size using SRS technique. The sample size was determined using the online survey calculator, considering 5% margin of error at 95% confidence level.

Data collection

The primary data of the study were collected through the application of a survey containing closed-ended questions. The questionnaire was administered in order to collect primary data on students' satisfaction level due to various institutional factors. The questionnaire was pretested and the final version applied to 373 students.

The questionnaire items asked how the students' satisfaction levels were influenced by seven key factors, namely: (1) Organizational structure and facilities; (2) Faculty and teaching; (3) Financial assistance; (4) Branding and promotion; (5) Industry links; (6) Skills development and extracurricular activities; and, (7) Fees structure. In addition, secondary data were collected from various sources such as academic books, journals, newspapers and data archives.

Analytical technique

The study explored factors that could influence students' satisfaction level at a private university in Bangladesh. First, we developed a structured questionnaire and collected data using a Likert-type psychometric scale. The participating students were asked to provide responses on seven key parameters which could influence their satisfaction at the tertiary level of education. Each parameter consisted of various statements and each statement had five response levels that the student could select from, which were "Strongly agree" (SA), "Agree" (A), "Neutral" (N), "Disagree" (DA), and "Strongly disagree" (SDA).

From the application of the scale we developed an "index of students' satisfaction score." This index was then utilized as the dependent variable in the regression model. The independent variables were expressed in terms of average scores generated from the various elements included within each of the seven parameters, as shown in the conceptual framework in Figure 1.

As previously mentioned, this study aimed to identify factors which can influence students' satisfaction level at a private university in Bangladesh. For this purpose the Ordinary Least Square (OLS) technique was applied. Regression analysis techniques such as OLS and Weighted Least Square (WLS) have been applied by various researchers in order to assess the impact of independent variables on a dependent variable (e.g., Du, Zhang, & Tekleab, 2018; Hilton, Fischer, Wiley, & Williams, 2016; Mahmud, Hassan, Alam, Sohag, & Rafiq, 2014; Saqib, Udin, & Baluch, 2017; Saqib, Kuwornu, Panezia, & Ali, 2018). One important factor to note is the problem of heteroscedasticity, which can be the cause of significant problems. Therefore, we conducted the Breusch-Pagan-Godfrey (BPG) test in order to detect heteroscedasticity, which can then be solved in one of two ways: White's method or WLS.

The model can be specified as shown in Equation 1:

$$SS = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \mu \qquad [1]$$

where;

SS = Student satisfaction (score),
X_1 = Organizational structure and facilities (score),
X_2 = Faculty and teaching (score),
X_3 = Financial assistance (score),
X_4 = Branding and promotion (score),
X_5 = Industry links (score),
X_6 = Skills development and extracurricular activities (score),
X_7 = Fees structure (score),
β_o = Constant,
β_i = Coefficient to be estimated,
μ = Error term.

Findings and Discussion

Profiles of the respondents

In this study, the participants were 373 undergraduate students attending a private university in Bangladesh, with a mean age of 21 years (see Table 1). In terms of the participants' educational background, all of the respondents were enrolled in undergraduate programs and most had completed at least five semesters at the point when the study took place. As can be seen from Table 1, there were more male participants than females, with 57% male students and 43% females. It was also found that majority of the participants had their permanent residence in Banani, Dhaka. This is not very surprising as the selected university was located in the Banani area of Bangladesh. It was observed that 92% of the participants came from lower-income to middle-income families, with a monthly household income below BDT 100,000. Thus, along with the physical location of the university, the fee structure might have been a crucial factor which influenced their choice of academic institution for their Bachelor studies.

Table 1. Participants' demographic and socioeconomic characteristics

Variable	Number	%	Mean
1. Age (years)	373	100	21
2. Bachelor's education: Semesters completed			
o Below 5	239	64	120
o Above 5	134	36	67
3. Gender			
o Male	214	57	107
o Female	159	43	80
4. Permanent residence			
o Banani	166	45	83
o Tejgao	41	11	21
o Bashundhara	16	4	8
o Mohakhali	19	5	9.5
o Gulshan	15	4	7.5
o Others	116	31	58

5. Family income (monthly)			
○ Less than BDT 100,000	343	92	172
○ Greater than BDT 100,000	30	8	15

Regression results

In order to explore the factors which could influence students' satisfaction level, we conducted multiple regression analyses. The OLS estimation confirmed that, out of the seven independent variables, four were found to be statistically significant and positively related to the dependent variable of "Students' satisfaction" (see Table 2). The significant variables were: (1) "Organizational structure and facilities"; (2) "Faculty and teaching"; (3) "Branding and promotion"; and, (4) "Industry links," and their estimated coefficients (β) were found to be .913, .295, .206, and .285, respectively. It is hypothesized that due to improvements in organizational structure and facilities of an academic institution, the satisfaction level of students will be enhanced.

This study has shown that the independent variable, "Organizational structure and facilities," was positively and significantly related to the dependent variable "Students' satisfaction." This is an indication that students' satisfaction level will increase where universities provide better facilities to their students such as a permanent campus, sophisticated laboratories, up-to-date classroom tools, and transportation etc.

It is expected that high quality faculty and teaching will improve students' satisfaction. This study confirmed that the independent variable "Faculty and teaching" was significantly and positively related to the dependent variable "Students' satisfaction."

Similarly, it can be hypothesized that strong brand image of the university and various other promotional activities undertaken by the university will have a positive impact on students' satisfaction. This study showed that the variable "Branding and promotion" was significantly and positively related to the dependent variable "Students' satisfaction". This clearly indicates that the strong brand image of an academic institution can benefit students in various ways, hence it enhances their overall satisfaction level.

In Bangladesh, the current job market is highly competitive, and securing a job requires strong connections along with impressive academic results. Hence, it is hypothesized that strong industry links of academic institutions with potential employers will enhance students' satisfaction. The regression findings confirmed that the independent variable "Industry links" was positively and significantly related to the dependent variable "Students' satisfaction."

Finally, the other three independent variables in the regression model, "Skills development and extracurricular activities," "Fees structure," and "Financial assistance" were also positively related to the dependent variable "Students' satisfaction." However, the results were not found to be significant. The estimated coefficients (β) for "Skills development and extracurricular activities," "Fees structure," and "Financial assistance" were found to be .016, .046, and .121, respectively (see Table 2).

Table 2. Regression results of factors driving students' satisfaction

Variable	Coefficient	t-value	Level of significance
Organizational structure & facilities	.913	3.53	.000*
Faculty & teaching	.295	2.57	.011*
Financial assistance	.121	1.07	.287
Branding & promotion	.206	1.92	.052*
Industry links	.285	1.98	.049*
Skills development & extracurricular activities	.016	0.13	.898
Fees structure	.046	0.58	.560

Through the choice of the correct model for analyzing the role of intercultural communication in the multicultural world, we identified the characteristics of intercultural communication that affect the achievement of mutual understanding.

Conclusion

Student retention and students' academic success can be challenging for many higher education institutions worldwide. Universities can play a crucial role in contributing to their nation's wellbeing by supplying high quality graduates to the national labor force. In order to ensure that universities provide the best quality educational service to their students, it is necessary to identify the factors that contribute to the overall satisfaction of their students.

It is important to note that although a number of previous studies have been conducted to explore factors influencing students' satisfaction at the tertiary level in Bangladesh, less documented are studies where both tangible and intangible elements of educational service were considered in order to obtain a holistic view of the phenomena. In the current study, along with tangible elements such as classroom, campus, and transportation facilities offered by the university, we also included intangible elements such as brand image, industry links, and skills development which can impact on students' levels of satisfaction.

The findings from the study indicate that four key factors, namely "Organizational structure and facilities," "Faculty and teaching," "Branding and promotion," and "Industry links" have a significant positive impact on the dependent variable "Students' satisfaction" at the tertiary level in Bangladesh. The results further show that the other independent variables, namely "Financial assistance," "Fees structure," and "Skills development and extracurricular activities" also have a positive impact on the dependent variable "students' satisfaction," although the results were not found to be significant.

It is expected that the findings from the current study will assist educators, administrators and educational policymakers to set appropriate goals, and to undertake initiatives in order to provide better quality education to their students, and thereby produce high quality graduates for the national economy as a whole.

However, as with any other research, the current study had certain limitations. First, the study was conducted with students from a single academic institution, with a sample size restricted to 373 students. Hence, this research encourages further study to be conducted by collecting data from other universities in order to validate the findings of the current study. Second, this is a cross-sectional study, hence further research could be conducted using longitudinal data so as to assess students' satisfaction over a period of time.

Notes

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