

A Comparative Study of the Cost of Higher Education in Private and Public Universities in Bangladesh

Dr. Basanta Kumar Barmon*

Imrana Sharmin**

Debashish Dey***

ABSTRACT

The present study aims to attempt a comparative study of the reasons for enrolment in private universities and to estimate the cost of education for higher education in both private and public universities in Bangladesh. Primary and secondary data are used in this study. The findings of the study indicated that the monthly average cost of education of a student in a private university is significantly higher than in a public university. The main reasons are that the students of private universities spend more money on tuition fees, accommodation costs and better living expenses than those of public universities, and the costs also largely vary (in both private and public universities) among the students within the same university. On an average, the parents' monthly income of students who are enrolled in private universities is significantly higher than that of public university and most of the parents are engaged in business or good government services. The cost of education also depends on parents' income, family size, and the number of students in the same family. The study also indicates that on an average, monthly expenditures of male students are significantly higher than those of female students.

Keywords: Cost, Higher Education, Private and Public University, Bangladesh

Introduction

Education is the backbone of a nation. Bangladesh is a developing country and our standard of living is relatively low. To improve our present situation and convert Bangladesh into a developed country, proper higher education and the efficiency

* Associate Professor, Department of Economics, East West University, Dhaka

** Senior Lecturer, Department of Economics, East West University, Dhaka

*** Former Student, Department of Economics, East West University, Dhaka

of its citizens is much needed. In our country we have only twenty-five public universities (divided into many sectors) whereas there are about fifty-four private universities and two International universities (up to 2010, source: UGC). These private universities add more value to the citizens of our country by providing better higher education to them. This comparative study will assist students to make proper decisions about when to step forward into the future to receive their higher education. Before enrolling into any university the student should be able to organize information regarding, 'what these private or public universities will provide', 'what they are capable of' and 'what are their future goals'. According to the guardians of students, few sectors on which comparative study of enrolment decision rely are, quality of education, environment of the institution, availability of faculty members, availability of courses as preferred by the students and the society, cost of education, family earnings, presence of more technical instruments and support to enhance technological knowledge, better reputation worldwide, better career counseling, practical and research based teaching system, favorable library facilities, less crowded class rooms, no political interferences, advantageous accommodation facilities, low living costs and finally the most important thing is career development activities. The universities that can provide the above mentioned facilities proficiently can be considered as better universities compared to others. Along with these relative sectors, our present education system also has a great influence over enrolment decisions of students and guardians and in the establishment of new universities within the country.

Review of Literatures

There are a large number of research studies, reports and theoretical works based on the quality of higher education and its determinant factors (Jacobs, 1996; Stella, 2002; Varghese, 2004; Luxton, 2005 and Perry, 1994), causes of the establishment of private universities (Beck, 1990; Bray, 1988; Dube, 1995; Breslen, 1999; Geiger, 1986, Geiger, 1988; Lee, 1998; and Ransom, et.al, 1993), movement of growth rate of higher education in private universities (Quddus and Rashid, 2000) and history and reason for the establishment of private universities in Bangladesh (Hopper, 1998; Quddus and Monir, 1992; and World Bank, 1994). Alam et. al., (2007) has argued that private universities are creating quality students, and they have significant positive impacts on employment sector which is increasing very sharply compared to the impact that public universities have in Bangladesh. In addition, public universities have more political influences,

secession delays, and political violence compared to private universities in Bangladesh.

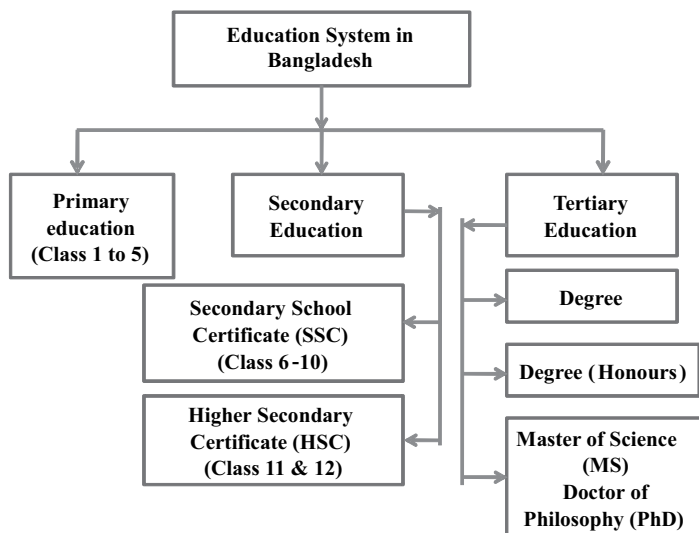
Sabur (2004) has conducted a research on quality of students in terms of education in private and public universities in Bangladesh and concluded that the students of public universities possess greater quality than private university students and they have better possibility in the job markets compared to private university students.

Lamanga (2002) has highlighted three different aspects which include measuring the quality of education, teaching and research, and demand for labor in job markets of Bangladesh and he concluded that the students of public universities are more qualified, their teaching environment is better and most of the teachers engage in research activities rather than in private activities compared to the private universities in Bangladesh.

Masum (2008) and Aminuzzaman (2007) have also conducted similar types of research activities on quality of education in private and public universities in Bangladesh. They have discussed the method of teaching and learning, assessment methods and examination quality, direct facilities, indirect facilities, political climate, updating and upgrading of professional knowledge and skills and improvement of broader educational knowledge, administrative and resource environments and they have found ambiguous results. However, comparative study of the cost of higher education in private and public universities in Bangladesh has not been analyzed explicitly. Therefore, the present study analyzes the comparison in the cost of higher education in public and private universities in Bangladesh.

Present Education Systems in Bangladesh

The present education system in Bangladesh is characterized by the co-existence of three major stages - primary stage, secondary stage, and tertiary stage of education. The present structure of education systems in Bangladesh is presented by Figure 1.

Figure 1: Education System in Bangladesh

Primary Education/Stage

The first stage of education is called primary education and its length is 5 years' formal schooling (class/grade I-V). At this stage education formally commences 5+ years of age group up to 11 years. Primary education is mainly imparted by the government and non-government primary schools under the Ministry of Primary and Mass Education (MOPME). The economically better-off families send their children to private English Medium schools for education and it is very expensive. The primary education in government primary school is totally free of cost and the government provides all text books for free. The primary education is compulsory for all children in Bangladesh. Now-a-days, most of the parents send their children to private schools/ kindergartens for one to two years as pre-primary education.

Secondary Education/Stage

After completion of primary education, students (11+ years) enroll in secondary high school. The secondary stage is again comprised of three phases: (i) First phase (ii) Second phase (iii) Third (final phase).

(i) First Phase: The length of the first phase of secondary education spans over 3 years of schooling for education (class/grade VI-IV).

(ii) Secondary Phase: At the end of the first phase, some students (mainly financially not solvent and not meritorious students) switch over to join the vocational stream, offered by Vocational Training Institutes (VIT) and Technical Training Centers (TTC) managed by the Ministry of Education and the Ministry of Labor and Employment, respectively. However, the students in the mainstream continue in the government and non-government secondary schools for 2 years of schooling in their respective areas of specialization i.e., science, humanities, commerce, etc. At the end of the 10th class, the students sit for their first public examination called Secondary School Certificate (SSC) under the supervision of seven education boards of Bangladesh.

The students of religious education and English medium streams also sit for their respective examination which are called 'Dakhil' and 'O' level run by the Madrasha Education board and Edexcel/ Cambridge board, London, respectively.

(iii) Third / Final Phase: After completion of 10 years of schooling (primary and secondary), students (16+ years) who succeed in passing the Secondary School Certificate (SSC/ Dhakil / 'O' level) examination have the opportunity to get admitted in college for 2 years' Higher Secondary Education in their respective areas of specialization (science, commerce and humanities), or enroll in technical/polytechnical institutes for technical education. At the end of the 12th class, the students sit for their second public examination called Higher Secondary Certificate (HSC) under the supervision of boards.

The students of religious education and English medium streams also sit for their respective examination which are called 'Alim' and 'A' level run by the Madrasha Education board and Edexcel/ Cambridge board, London, respectively.

Higher Education/Tertiary Stage

After successful completion of higher secondary certificate (HSC) examination, the students (18+) have an opportunity to enroll in public and private universities/ degree colleges/ technical colleges/ specialized institutions for higher education. There are two types of major higher education institutions in Bangladesh which are conducted by the government and the non-government bodies. The major higher education institutions in Bangladesh which are conducted by government include: degree-level liberal arts colleges affiliated by the Bangladesh National University, Bangladesh Open University, University of Engineering and

Technology, Agricultural University, medical colleges, dental colleges, teacher's training colleges, colleges of physical education, college of textile technology, college of leather technology. Each of the universities and colleges conduct its own examinations, while the Bangladesh National University is responsible for conducting bachelor's and master's examinations of the affiliated degree college throughout the country. Bangladesh Open University (BOU) conducts non-campus distance education programs especially in the field of teacher education and offers Bachelor of Education (B. Ed) and Master of Education (M. Ed) degrees. BOU conducts 18 formal courses and 19 non-formal courses.

There are 52 private universities and many private medical and dental colleges in Bangladesh and they were established under the Non-government Universities Act (Act 34 of 1992) and all the universities are independent to conduct examinations like public university in Bangladesh.

Trend of Higher Education in Bangladesh

After the independence of Bangladesh, all governments considered educational development as one of the prime sectors and spent huge amount of money (highest portion of national budget) for the development of education sectors. The trend of institutions for higher education such as number of colleges and universities are presented in Table 1 and 2 and numbers of students in public and private universities are presented in Table 3 and 4.

Table 1: Trend of Number of Colleges and Students from 1970 to 2008

Year	No. of College			No. of Students		
	Public	Private	Total	Total	Male	Female
1970	32	362	394	300,047	271,213	28,834
1980	74	525	599	333,580	269,232	64,348
1990	198	650	848	824,112	621,790	202,322
2000	251	2,176	2,427	1,725,601	1,039,462	686,139
2008	252	3,025	3,277	1,855,633	1,034,823	820,810

Source: BBS, 1979, 1990, 1999, and 2009.

The Tables 1 and 2 show that from 1970 to 2008 the number of colleges increased sharply and compared to that number of students' enrolment increased substantially. It shows a huge influence on higher education in the University

level. However, the number of colleges increased more rapidly from 1990 to 2008 mainly because of the increased awareness of the people in Bangladesh. As a result, the number of student enrollment has also increased in the same manner.

Table 2: Trend of Number of Universities and Students from 1970 to 2008

Year	No. of Universities			No. of Students		
	Public	Private	Total	Male	Female	Total
1970	6	-	6	21,942	4,448	26,390
1975	6	-	6	22,850	4,703	27,553
1980	6	-	6	29,572	6,958	36,530
1985	6	-	6	34,486	7,294	41,780
1990	7	-	7	41,108	10,672	51,780
1995	11	16	27	56,010	16,862	72,872
2000	13	19	32	83,219	27,437	110,656
2005	21	53	74	157,710	49,867	207,577
2008	31	51	82	293,795	93,638	387,433

Source: BBS, 1979, 1990, 1999, and 2009.

The trends of number of universities and the number of students enrolled in universities of Bangladesh are shown in Table 3 and 4. The tables show that from the year 1970 to 2008 there was a significant increase in number of universities and students showing that the demand of university education greatly increased from that period onwards.

Table 3: Trends of Universities in Bangladesh from 1970 to 2008

Year	No. of universities		
	Public	Private	Total
1970	6	-	6
1975	6	-	6
1980	6	-	6
1985	6	-	6
1990	7	-	7
1995	11	16	27
2000	13	19	32
2005	21	53	74
2008	31	51	82

Source: BBS, 1979, 1990, 1999, and 2009.

Table 4: Trend of Enrolment of Students in Private and Public Universities, Bangladesh

Year	University		Total	% of private students to total students
	Publi	Private		
2000	81,066	13,192	94,258	14
2001	86,219	35,968	122,187	29
2002	92,562	28,125	120,687	23
2003	99,474	32,927	132,401	25
2004	104,350	44,224	148,574	30
2005	104,350	44,224	148,574	30
2006	105,467	44,697	150,164	30

Source. Bangladesh Arthonoitik Somikkha 2006, Ministry of Finance, Government of Bangladesh, pp.226.

After 1990, our education sector improved by large number of enrolments and growth in quality and quantity of the public and private universities. From that period onwards the private sector received much boost in comparison with the public sector which has been statistically proved and now both the sectors challenge each other. So, before taking the enrolment decision, we should be more concerned about the comparative performance of our private and public universities.

Methodology of the Study

Source of Data

Based on the objectives of the study, primary and secondary data were used in this study. Primary data were collected through comprehensive questionnaire that included both public and private university students. A total of 49 samples were randomly selected from four private universities and 31 samples were collected from 3 public universities in Bangladesh. Secondary data were collected from the report of Bangladesh Bureau of Statistics (BBS), Ministry of education of Bangladesh and from the report of University Grants Commission (UGC). Tabular and statistical analyses were used in this study.

Analytical Technique

To compare the total expenditure of a student of private and public universities, the following multiple regression was estimated using ordinary least square (OLS) method.

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4D_1 + b_5D_2 + b_6D_3 + b_7D_4 + b_8D_5 + e_i$$

Where,

Dependent variable:

Y = Total expenditure of a student (Taka/month)

a = Constant term

b_i = Regression coefficients to be estimated ($i = 1, 2, \dots, 8$)

Independent variables:

X_1 = Family income (Taka/month)

X_2 = Family size (Number)

X_3 = Number of student of respondent family

Dummy variables:

D_1 = Gender (male = 1 and female = 0)

D_2 = Institution/university (private university = 1 and public = 0)

D_3 = Home district of the students (Dhaka = 1 and other district = 0)

D_4 = Residence of the students (With family = 1 and without family = 0)

D_5 = Job of the guardians (Service = 1 and others = 0)

e_i = Random error (normally distributed with mean μ and σ^2)

In addition to this, student t-test and tabular forms are used in this study.

Results and Discussions

Definition of Variables and Expected Sign

Based on the objectives of the study, per month expenditure (Y) of a student as a dependent variable and per month income of parents of student (X1), family size (X2), number of students of sampled family (X3), dummy variables gender (D1: male =1 and female =0), university (D2: private =1, and public =0), home district (D3: Dhaka =1, and others = 0), residence (D4: own family = 1, hired house = 0), and job status of parents (D5: service = 1 and other = 0) are used as independent variables in the regression model. The definitions of the variables used in the regression model are presented in Table 3.1.

Table 3.1: Definition of the Variables used in the Regression Equation

Variables	Definitions
Dependent variable:	
Total expenditure (Y)	: Total monthly expenditure on education(tuition fees) and living expenses (taka)
Independent variables:	
Income of parents (X1)	: Total monthly family income earned by all the family members (taka)
Family size (X2)	: Number of family members
No of student of respondents' family (X3)	: Total number of students in the family
Dummy variables:	
Gender (D1)	: Male = 1 and female = 0
University (D2)	: Private university = 1 and public university = 0
Home district (D3)	: Dhaka = 1 and other district = 0
Residence (D4)	: Own family = 1 and hired house = 0
Job of parents (D5)	: Service = 1, business or others = 0

Source: Field survey, 2010.

Income of Parents (X1)

Per month expenditure of students (tuition fees and daily expenses) mainly depends on the parents' income (X1). As usual, the student has a tendency to use more money as expenditure if his/her parents provide a large amount of money and this money mainly depends on the income of parents. Therefore, the coefficient of parents' income in the regression model is expected to be positive.

Family Size (X2)

Family size (X2) is considered in the regression model as a number of family members. If the family size is large, then the large portion of parents' income is used as daily food expenditure and for other purposes. As a result, the parents send comparatively less amount of money to their son/daughter for monthly expenditure. Thus, the coefficient of family size in the regression model is expected to be negative.

Number of Students in the Family (X3)

The number of students in the family has also significant impact on the per month expenditure of students that the parents send to their sons/daughters. A part of the parents' income is also used as the expenditure of the other children's education. Therefore, the coefficient of number of students in the family is expected to be negative.

Dummy Variables (D)***Gender (D1)***

The coefficient of dummy variable gender (D1: male =1 and female =0) in a regression is expected to be positive or negative. Considering the socio-economic text of our country, mainly the male students use more money in smoking and other activities. Consequently, the coefficient of gender in the mentioned regression model is expected to be negative.

University (D2)

Tuition fees are a large part of per month expenditure of a student. In Bangladesh, the students who study in private universities use comparatively large amount of money as tuition fees compared to those of public universities. Therefore, the coefficient of university (D2: private university =1 and public university =0) in the regression model is expected to be positive.

Home District (D3)

The coefficient of home district (D3: Dhaka city = 1 and other city = 0) in the regression model can be expected to be positive or negative. Usually most of the private universities are located in Dhaka city and the students coming from outside

the Dhaka city live in hired houses around the university campuses. The students of Dhaka city come to their universities from their own houses using various modes of transports. Thus, in this case the coefficient of home district (D3) in the regression model is expected to be negative.

Residence (D4)

The coefficient of residence (D4: reside with family =1 and reside without family =0) in the regression model can be expected to be positive or negative. The students who do not live with family comparatively spend more money on daily meals than students who live with their family. Therefore, the coefficient of residence in the regression model is expected to be negative.

Job of Parents (D5)

The coefficient of jobs of parent's (D5: Service =1 and business or others =0) in the regression model is expected to be positive or negative.

Analysis of Descriptive Statistics

The descriptive summary of statistics of the dependent and independent variables used in the regression model are presented in Table 3.2. The table shows that the mean of monthly expenditure of the sampled students (both private and public universities) is taka 13,256, which varies from taka 1,540 to taka 36,000 with a standard deviation of taka 8,067. Most of the students of private universities expend more money on tuition fees, hired houses and better living condition than students of public universities. Most of the students of public universities live in government allocated residence halls and their monthly tuition fees are very low.

The mean per month income of parents of the sampled students is about taka 87,804 with a range between taka 12,000 and taka 546,000 and with a standard deviation of taka 86,585. Monthly income level widely varies from parents to parents mainly because of different professions. The mean of the sampled family size is 4.9 which vary from 2 to 10 members and the standard deviation is 1.59. The sampled family size represents the mean family size of Bangladesh (BBS, 2009).

Table 3.2: Summary Statistics of the Variables in the Regression Model

Variables	Mean	Maximum	Minimum	Standard deviation
Dependent variable:				
Total expenditure	13,256	36,000	1,540	8,067
Independent variables:				
Income of parents	87,804	546,000	12,000	86,585
Family size	4.9	10.0	2.0	1.588
No of students of respondents' family	0.775	3.0	0.0	0.8565
Dummy variables:				
Gender	0.3500	1.0000	0.0000	0.4800
Institution	0.6125	1.0000	0.0000	0.4903
Home district	0.6625	1.0000	0.0000	0.4954
Residence	0.4125	1.0000	0.0000	0.4954
Job of parents	0.5000	1.0000	0.0000	0.5032

Source: Authors' calculation.

Note: Total sample size is 80 of which 49 are private universities and 31 are public universities.

Some dummy variables are introduced in the regression model. As dummy holds two values 0 and 1, some the maximum value is 1 and minimum value is 0. The mean of gender variable is 0.35 with a standard deviation of 0.48, whereas, the mean of dummy variable university (institution) is 0.6125 with a standard deviation of 0.4903. The average of the dummy variables in home district, residence of student and jobs of parents is 0.6625, 0.4125 and 0.50, respectively, with their corresponding standard deviations of, 0.4954, 0.4954 and 0.5032 respectively.

Analysis of the Regression Model

The analyses of the regression model are briefly discussed in Table 3.3. The coefficient of determination (R^2) is about 83%, indicating that the dependent variable per month expenditure of student (Y) is explained or accounted for by about 83% by the independent variables that include income of parents (X1), family size (X2), number of students in family (X3), gender (D1), types of university (D2), home district (D3), residence (D4) and types of jobs of parents (D5).

Table 3.3: Estimates of the Regression Model

Variables	Coefficients	t-statistic
Constant	7443*** (1818)	4.09
Income of parents (X1)	0.01147** (0.0053)	2.15
Family size (X2)	-491.2** (258.53)	-1.90
No. of student in family (X3)	-864.2 (533.46)	1.62
Dummy variables:		
Gender (D1)	-1447.8* (883.2)	1.69
Institution (D2)	14712.8*** (992.8)	14.82
Home district (D3)	-1363.9 (967.4)	-1.41
Residence (D4)	-2341** (1037)	-2.26
Job of parents (D5)	-189.9 (923.5)	-0.21
R^2	0.83	

Source: Authors' calculation.

Notes: (i) ***, ** and * indicate 1%, 5% and 10% significance level, respectively.

(ii) The figures in parentheses indicate standard error.

The coefficient of the parents' income (X1) is statistically significant at 5% level, indicating that the parents' income has significant impact on the monthly expenditure of students. In other words, monthly expenditure of a student mainly depends on the parents' income. If parents' income increases then the parents comparatively allocate a large amount of money to their sons/daughters for their monthly expenditure. The coefficient of family size (X2) is also statistically significant at 5% level, which indicates that if the family size increases, then the parents allocate comparatively less amount of money to their sons/daughters for daily expenses. In order words, an

inverse relationship exists between family size and monthly expenditure of a student. The main reason is that the parents with a comparatively large family size use a large portion of their monthly income on daily food.

The coefficient of number of students in a sampled family (X3) has a negative (not statistically significant) impact on the amount of the monthly expenditure on a sampled student. This indicates that the parents also use a part of their family income on other children's education; as a result, monthly expenditure is decreased.

The coefficient of the dummy variable gender (D1) in the regression model is statistically significant at 1% level, indicating that monthly expenditure for male students is significantly higher than their counterpart female students. The main reason for this is that most of the male students expend money on smoking, traveling and hanging out whereas female students have no smoking expenses and they spend less on traveling and hangouts expenses.

The coefficient of university (D2) in the regression model is statistically at 1% significant level, which indicates that the tuition fee of private universities is higher than that of public universities. Moreover, most of the students of the private universities live in hired houses; on the other hand, the students of public universities live in government allocated residence (halls) and the rent of such halls is very cheap.

The coefficient of home district (D3) in the regression equation is negative and not statistically significant but the coefficient of residence (D4) is statistically significant at 5% level and the expected sign is negative. This indicates that students who come to university outside from Dhaka are residing in hired houses which are around the university areas. The students who are living with their family use various transporting modes for coming to university and need additional money that is not required for the students who live in hired houses. Moreover, the students who live with their family have less meal charge than the students who live in hired houses.

The coefficient of job of parents (D5) is not statistically significant but the sign is negative, indicating that the parents who engage in business send larger amounts of money to their children than parents who are service holders. As a result, monthly expenditure of a son/daughter of parents who engage in business is higher than the parents who engage in service.

Global Test: Testing the Multiple Regression Model

The global test is mainly used to test the ability of the independent variables (income of parents (X1), family size (X2), number of students in family (X3), gender (D1), types of university (D2), home district (D3), residence (D4) and types of jobs of parents (D5)) to explain the behavior of dependent variable (monthly expenditure of student (Y)). To test the ability of the independent variables, state the null and alternative hypotheses.

Null hypothesis, $H_0: \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = \beta_7 = \beta_8 = 0$

Alternative hypothesis, H_1 : Not all the β_i 's are 0.

Table 3.4: Testing of Multiple Regression Model

Sources	df	SS	MS	F	Probability
Regression	8	4266510318	533313790	43.33	0.00
Error	71	873947032	12309113		
Total	79	5140457350			

Source: Authors' calculation.

The result of the global test is presented in Table 3.4. The table shows that the value of F-statistic is very high which indicates that it is statistically significant at 1% level and the null hypothesis is rejected. This indicates that all coefficients in the regression model are not the same and the regression is well explained by the independent variables.

Comparison in Monthly Expenditure (Private versus Public University)

Student t-statistic is applied to test the variation of monthly expenditure among the students of private and public universities. Monthly expenditure of a student (both private and public universities) largely varies from students within the same institution mainly because of parents' income, own attitude, style of daily life etc. The descriptive statistics of the monthly expenditure of the students of private and public universities are presented in table 3.5 and table 3.7. The average monthly expenditure of a student of private universities is taka 18,831 with a wide range between taka 11,000 and taka 36,000 and with a standard deviation of taka 4,923, whereas, the mean monthly expenditure of a student of public university is only taka 4,443 which varies from taka 1,540 to taka 8,040 and has a standard deviation

of taka 1,248. Both the means are statistically significant at 1% level. This indicates that monthly expenditure of a student varies widely within the same institution (university). Moreover, the mean monthly expenditure of a student of private university is higher than that of a public university. The main reason is that the students of private universities bear the huge tuition fees and rent for hired houses.

Table 3.5: Comparison of Per Month Mean Expenditure of a Student of Private and Public Universities

Variable	University			
	Private	t-statistic	Public	t-statistic
Mean	18,831***	26.77	4,443***	19.82
Minimum	11,000		1,540	
Maximum	36,000		8,040	
SD	4,923		1,248	

Source: Author's calculation.

Notes: (i) *** indicates statistically significant at 1% level.

(ii) Sample size of private and public university are 49 and 31, respectively.

(iii) Field survey, 2010.

Comparison in Parents' Income (Private and Public University)

The summary statistics and t-statistics of monthly income of parents of students of both private and public universities are shown in Table 3.6. It is observed that most of the parents of the students of private universities are engaged in businesses rather than services. The figures in Table 3.6 show that the average monthly income of parents of private universities is taka 99,061 which is widely varied from taka 25,000 to taka 546,000 and with a large standard deviation of taka 89,403. The value of the t-statistics of the parents of private universities is statistically significant at 1% level, indicating that monthly income widely varies within the same groups in the parents of the students of private universities. On the other hand, the average monthly income of parents of the students of public university is taka 70,010, ranges from taka 12,000 to 350,000 and with large standard deviation of taka 80,121. The value of t-statistic is also statistically significant at 1% level (Table 3.6). This means that the income widely varies within parents of the students who study in public universities.

Table 3.6: Comparison of Per Month Mean Income (taka) of Parents' of a Student of Private and Public Universities

Variable	University			
	Private	t-statistic	Public	t-statistic
Mean	99,061***	7.76	70,010***	4.87
Minimum	25,000		12,000	
Maximum	546,000		350,000	
Standard Dev.	89,403		80,121	

Source: Author's calculation.

Notes: (i) *** indicates statistically significant at 1% level.

(ii) Sample size of private and public university are 49 and 31, respectively.

(iii) Field survey, 2010.

The comparison in monthly expenditure of the students of private and public universities is presented in Table 3.7. It appears from the table that the mean income of the parents of private universities is higher than that of their counterparts in public universities and it is statistically significant at 1% level.

Table 3.7: Comparison of Per Month Mean Expenditure and Income of Parents of a Student in Private and Public Universities

Variable	University	Mean	Standard dev.	t-statistic
Expenditure (Tk)***	Private	18,831	4,923	19.49
	Public	4,443	1,248	
Income (Tk)*	Private	99,061	89,403	1.72
	Public	70,010	80,121	

Source: Author's calculation.

Notes: (i) *** and * indicate statistically significant at 1% and 10% level, respectively.

(ii) Sample size of private and public university are 49 and 31, respectively.

(iii) Field survey, 2010.

Conclusions

The demand for higher education in Bangladesh is increasing. Since independence, every government that came to power has taken many initiatives to improve and expand education from the primary level education to the higher level education in Bangladesh. In this regard, the government has allowed the operating of private universities to support the government initiatives as well as to reduce the pressure on the number of enrolments in the public universities. The present study attempts to estimate the comparative cost of higher education in public and in private universities in Bangladesh. The study has explored financial and social status of parents, educational background of parents, and the causes of enrolment in public and private universities in Bangladesh. Statistical and descriptive analyses were used in this study. The findings of the study indicated that the enrolment process varies from public to private universities mainly because of the accommodation facilities, social security, guardians' financial ability, educational background of the students and parents, students' own perspectives and many other related factors. The cost of education in private universities is significantly higher than that of the public universities mainly because of the huge tuition fees charged and the cost of dormitory/hall. Moreover, most of the students of the private universities live in hired houses. On the other hand, the students of public universities live in government allocated residence – halls /dormitories, which is very cheap. The students of private universities mostly come from families that are very much financially solvent whereas the students of public universities come from all types of income groups. On an average, monthly income of the parents of a student in private university is significantly (statistically significant at 1% level) higher than that of public university. The cost of education also depends on the family size, number of students in the same family, and source of income and types of jobs. The study also indicates that on an average monthly expenditure of a male student is significantly higher than their counterpart female students. The main reason for this is that most of the male students expend more money on smoking, traveling and hanging out compared to the female students. The students those who live with their families use various transporting modes for going to university from home and need additional money but this expenditure is not required for the students who live in university dormitories/halls. Moreover, the students who live with their families have to pay less charge for daily meals compared to the students who live in university dormitories/halls. All these together have illustrated that the enrolment process varies from public to private universities and the cost of education in private universities is significantly higher compared to the public universities.

References

- Alam, M., Haque, S., and Siddique, S. F. (2007). Private Higher Education in Bangladesh, Paris: International Institute for Educational Planning (IIEP).
- Ahmed, M. (2004). The Tale of the First Private University of Bangladesh, Dhaka: Academic Press and Publishers Limited.
- Aminuzzaman. S. (2007). Quality Issues of Higher Education in Bangladesh. URL:http://www.apqn.org/events/past/details/179/presentations/files/quality_issues_of_higher_education_in_bangladesh.pdf
- BBS (1979, 1990, 1999 and 2009). Bangladesh Bureau of Statistics. Statistical Yearbook of Bangladesh. Planning Division, Ministry of Planning, Government of the People's of Bangladesh.
- Beck, E. (1990). Hungarian Professors, Saying a Highly Educated Elite is Essential to Future, Try to Start a Private University. The Chronicle of Higher Education, A39.
- Bray, M. (1998). Financing Higher Education in Asia: Patterns, Trends, and Policies. International Higher Education.
- Breslen, M. (1999). Planet University. University Business, 29-38.
- Dube, S. (1995). Proliferation of Bogus Universities Alarms India's Education Officials. The Chronicle of Higher Education, A37.
- Geiger, R. L. (1986). Private Sectors in Higher Education: Structure Function and Change in Eight Countries, 296. Ann Arbor: University of Michigan Press.
- Geiger, R. L. (1988). Conference Report: Privatization of Higher Education, International Council for Educational Development, 1-61. New York: Inter-book Inc.
- Hopper, R. (1998). The New Universities of Bangladesh: A Case Study in Private Post Secondary Education, International Educator, 7 (1).
- Lee, M. (1998). Corporatization and Privatization of Malaysian Higher Education. International Higher Education.

- Quddus, M. (1992). Private University in Bangladesh: The Tuition Dilemma. *Dhaka Courier*, 29-31.
- Ransom, A., Siew-Mun K., and Selvaratnam, V. (1993). *Improving Higher Education in Developing Countries*, EDT Series, The World Bank: Washington, D.C., 1-80.
- Jacobs, J. A. (1996). Gender Inequality and Higher Education. *Annual Review of Sociology*, 22, 153-85.
- Lamanga, Z. C. (2006). *Quality Assurance in Tertiary Education – Bangladesh Experience*. World Bank, Learning Seminar.
- Luxton, A. (2005). *Quality Management in Higher Education*. Higher Education Management Series.
- Masum, M. (2008). Higher Education in Bangladesh: Problems and Policies. *Journal of the World Universities Forum*, 1, 5.
- Quddus, M., & Rashid, S. (2000). The Worldwide Movement in Private Universities: Revolutionary Growth in Post Secondary Higher Education. *American Journal of Economics and Sociology*. 59 (3), 487-516.
- Stella, A. (2002). *External Quality Assurance in Indian Higher Education: Case Study of the National Assessment and Accreditation Council (NAAC)*. International Institute for Educational Planning (IIEP), Paris: UNESCO.
- Varghese, N. V. (2004). *Private Higher Education in Africa*. International Institute for Educational Planning (IIEP), Paris: UNESCO.
- Perry, B. P. (Eds.) (1994). *Defining and Measuring the quality of Teaching*. Diana Green (editions), *What is Quality In higher Education? Society for Research into Higher Education*. 29-37, London.