Comparative Study on Variations of Living Standard for Public and Private University Students in Sylhet City of Bangladesh

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ABSTRACT

The attempt of this present research is to conduct a comparative study for estimation of socioeconomic variations in standard of living for both private and public university students in Sylhet urban area of Bangladesh. The results represent that the living standard of a private university student is significantly higher than a public university. The main reasons are that the students of private university have ability to spend more money for better university facilities including accommodation costs and for better living expenses than the public university. The amount of education costs also varies based on parent's income and it is significantly high for private university students than public university. It founds that the engagement in extra-curricular activities of a public university student is higher than private university. It also found that the monthly expenditures of male students are significantly higher than the female students.

INTRODUCTION

Bangladesh is a developing country and to convert the country into a develop nation, proper higher education and the efficiency of its citizens is too much needed. The country has only fifty-four public university, whereas there are about one hundred twelve private universities and three international universities (UGC, 2023). Among eight divisional large cities in Bangladesh, Sylhet is one of them and its area is around 50 km^2 with a population of 5,50,382 (BBS, 2022). The university is the last tier for education in current education system of Bangladesh (Figure 1). After completing the secondary education, the students generally move to the university for higher education (Huda et al., 2010). In that case, public university is the highly expected destination for almost all the students regarding its low expenses (Huq, 2001). However, due to the lack of available public university many of them bound to admitted in private university (Islam and Salma, 2016). In Sylhet city every year around fifty thousand of students are took part in admission test for their admission in university (Huda et al., 2010). However, the city has only two public university with a capacity for admission of three thousand five hundred students every year (Quddus and Rashid, 2000). Therefore, a significant number of students move to four private university to

continue their studies (Masum, 2008). Shahjalal University of Science and Technology and Sylhet Agricultural University are only the two public university in Sylhet city. The four private universities in Sylhet city are Sylhet International University, Leading University, Northeast University and Metropolitan University. These private universities add more value to the citizens of Sylhet city as well as for the country by providing proper higher education.

Public university deals with the delivery of goods and services by the government, however in private university everything is paid services (Aminuzzaman, 2007). Private universities are profit-oriented and some allegations are there against them (Masum, 2008). But all private universities are not equal in terms of providing inputs to produce output as productive and employable graduates. Many private universities are running in industrial or residential area. In the same building, some floors are rented for university and others are restaurant, beauty parlor, and furniture shop (Dhali, 1999). To ensure the standard of education these issues are necessary to consider. Because, standard of living of the students private and public university cannot be insured without ensuring the other facilities.

It was studied that the private university creating quality students, and they have significant positive impacts on employment sector which is increasing very sharply in Bangladesh (Alam et al., 2007). In addition, public universities have more political influence, secession delays, and political violence compared to private university students in Bangladesh (Andaleeb, 2003). It was found that the public universities possess greater quality than private university students and the have better job markets to private university students (Sabur, 2004). The students of public universities are more qualified, their teaching environment is better and most of the teachers engage in research activities rather than the private universities in Bangladesh (Lamanga, 2002). Recent studies also mentioned that there is huge difference in method of teaching and learning, assessment and examinations quality, direct facilities, indirect facilities, political environment, updating and upgrading of professional knowledge and skills and improvement of broader educational knowledge, administrative and resource environments between the public and private universities in Bangladesh (Islam and Salma, 2016).

However, comparative study of the cost of higher education in private and public universities in Bangladesh has not analyzed explicitly. Therefore, the present study analyzes the comparison of the living standard in public and private universities in Bangladesh. The conceptual framework of the study was presented in Figure 2. It has been tried to clear the education quality, living standard, objectives of higher education, factors related to living standard etc. under the conceptual framework to explore the quality of living standard where an analytical framework has been established. Following the framework, the data and information will collect and analyze those to reach the goal of this study. The objectives of this study is to identify the major sector or variables for the variations and to evaluate the differences of the standard of living of the students between the public and private university. Formulation of an appropriate policies or guideline to minimize the variations in standard of living also another aim of this study.

This comparative study will assist students to make better decision about when to step forward into the future to receive their higher education. The findings of this study help the policy makes of the country to reduce the discriminations between the public and private university education that will be helpful to ensure the quality of higher education in Bangladesh.
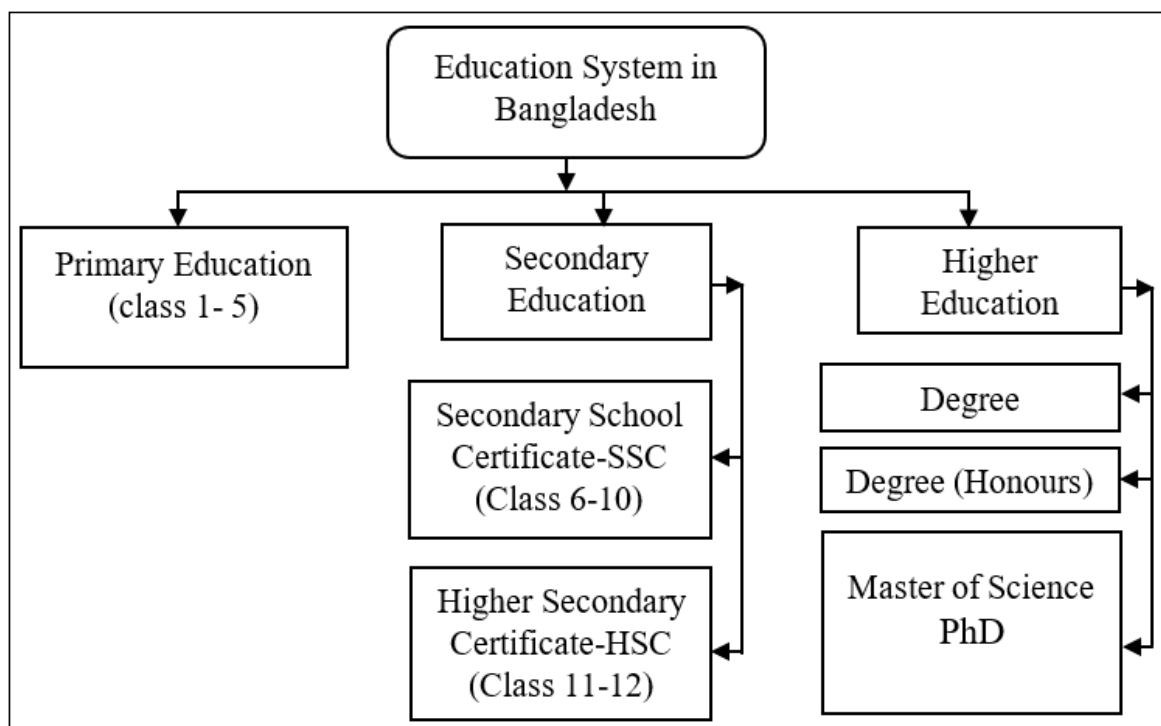
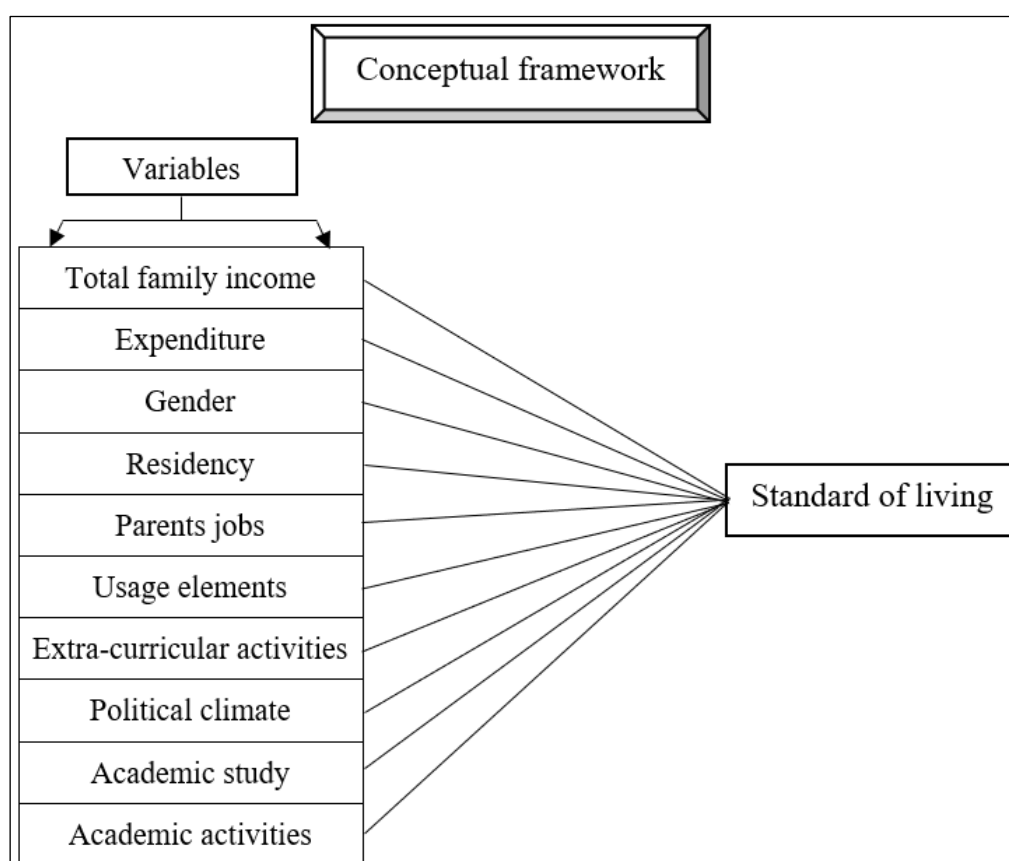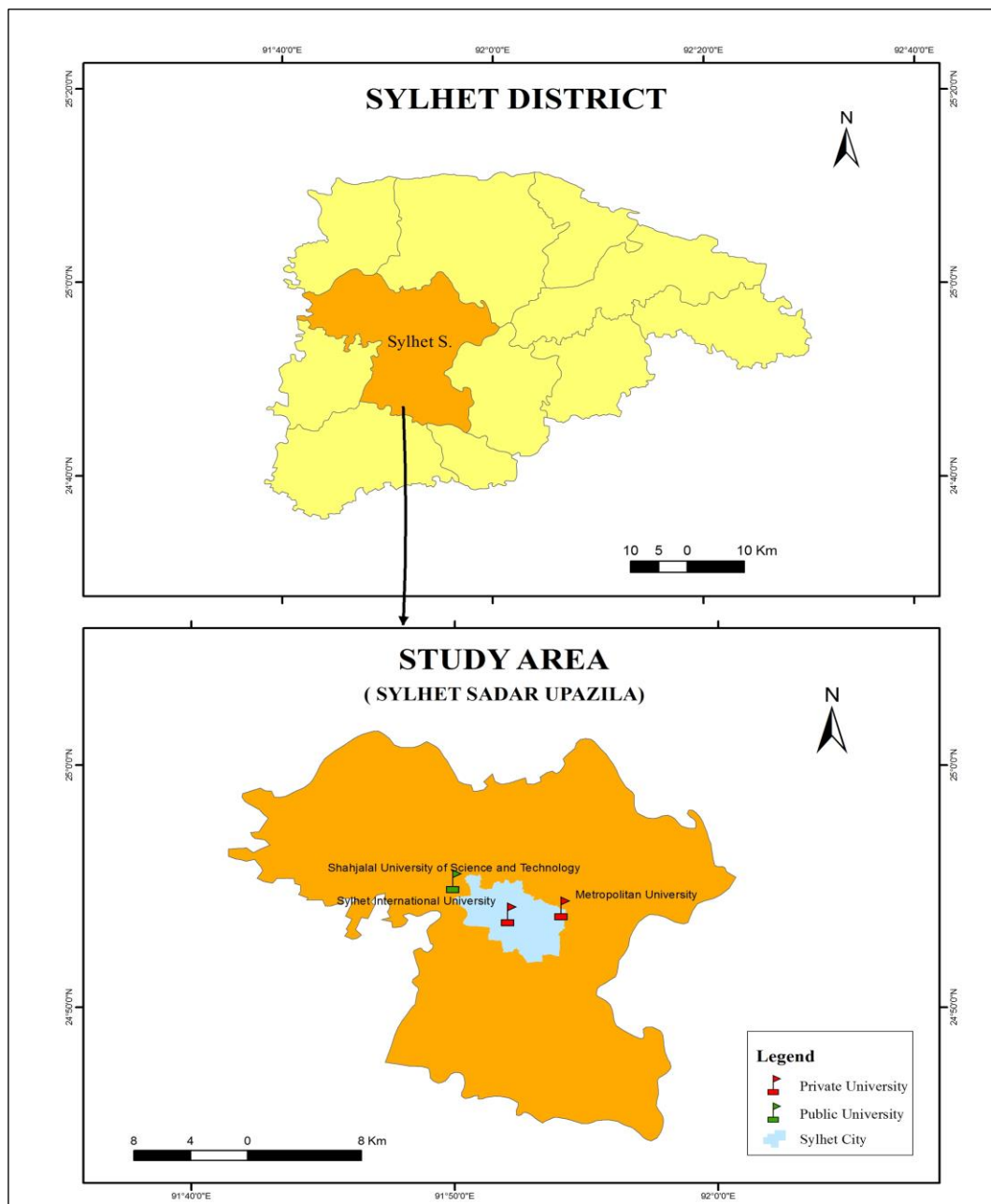Figure 1: Present education system in Bangladesh

Figure 2: Considered variables to evaluate the standard of living between the students of private and public universities.

METHODS

To conduct this study three universities out of six in Sylhet city was selected. Among the three, one public university and two private universities have been considered (Map 1). In order to collect the required data, Shahjalal University of Science and Technology (Public), Sylhet International University (Private) and Metropolitan University (Private) in Sylhet city were selected (Figure 3). The three universities of the study area were selected purposively. Simple random sampling procedure was applied to select the sample students.

In this study the independent variables were taken to explain the dependent variable on standard of living. The family income, expenditure in various levels and categories, facilities they are enjoying, academic activities and extra-curricular activities were selected as variables.

Map 1: Study area

The method and techniques that are used to conduct this research are descriptive, exploratory and analytical in nature. A research design was used for the collection, measurement and analysis of data (Figure 3). Total number of the students in these three universities are 13,407. In order to conduct the questionnaire survey 150 students have been selected. During this survey the students were selected by simple random sampling procedure. The selected three university and their students are shown in Table 1.

Table 1. Selected three universities, their students and sample size

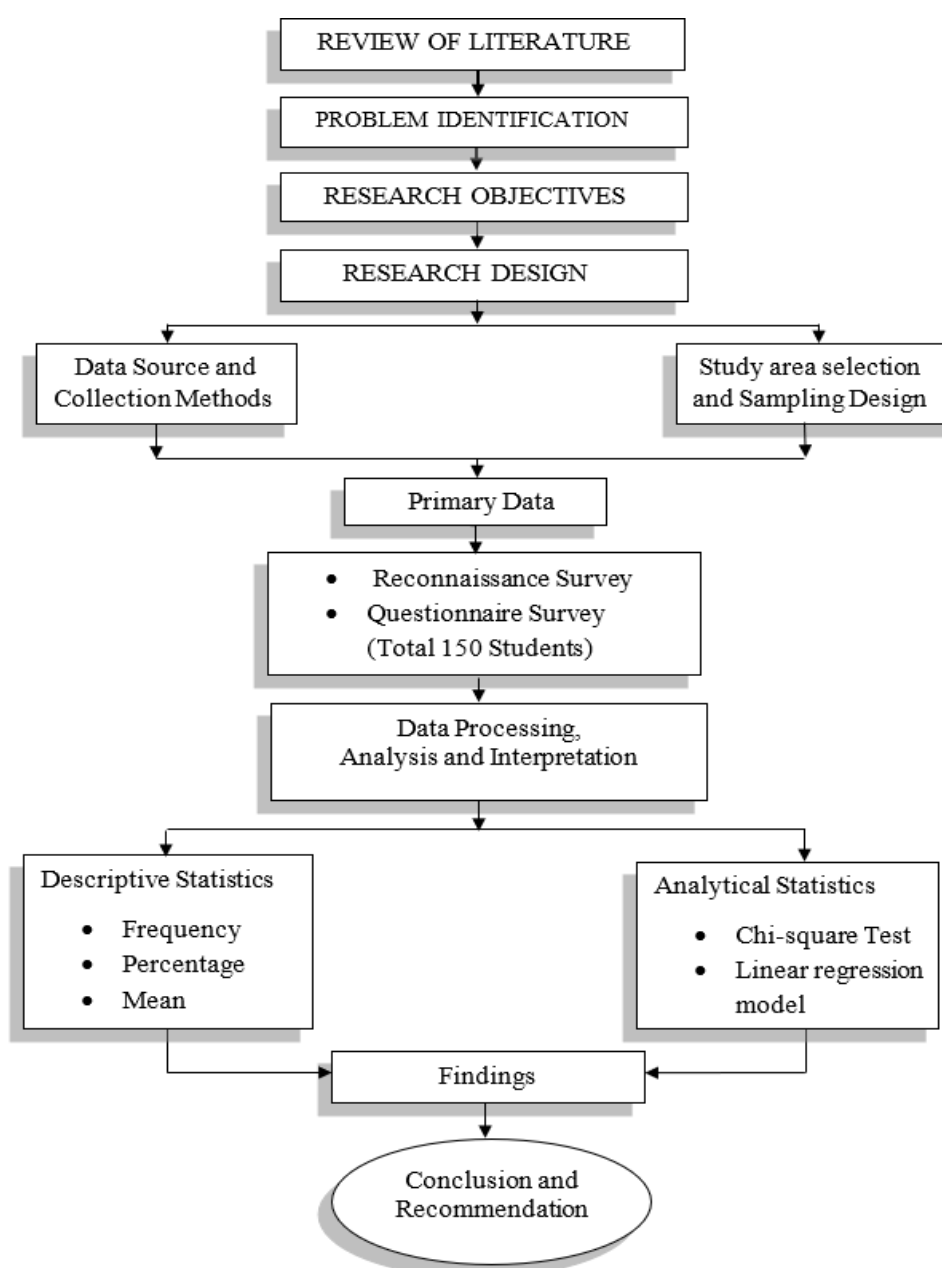| Type	University name	Total students	Sample size
Public	Shahjalal University of Science and Technology	7204	75
Private	Sylhet International University	3977	50
Private	Metropolitan University	2289	25
Total		13407	150

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Figure 3: Research design

Following the aims and objectives of the research, a questionnaire survey was conducted to collect the primary data. Secondary data were collected from the report of University Grants Commission (UGC) and from Bangladesh Bureau of Statistics (BBS). The collected data were processed and analyzed in accordance with the research plan. Different types of data collected through questionnaire survey, were analyzed using SAS, SPSS and EXCELL software. Descriptive statistics such as frequency, percentage, average and cross tabulation are used to analyze socio-economic conditions of the students. Student t-statistics was applied to test the variation in monthly expenditure among the students of public and private universities.

The non-parametric chi-square test was used to judge the significance of population variance. For testing independence among variables chi-square test for contingency table were applied. The formula of chi-square is as follows:

$$x^2 = \frac{\sum(O-E)^2}{E^2} \tag{1}$$

where, *O* for the observed number of students and *E* for the expected number of students.

The Ordinary Least Squares (OLS) method of estimation was used to study the dependency of the explanatory variables. The following multiple regression was estimated using OLS method.

$$Y = a + b_i X_i + e_i$$

where, Y for dependent variable, a for constant term, b_i for egression coefficients, X_i for independent variable and e_i for random error.

To compare the total expenditure of a student of private and public university, the following modified multiple regression was adopted using OLS method.

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + e_i$$

where, dependent variables: Y = total expenditure of a student (Taka/month), a = constant term, b_i = regression coefficients to be estimated (i = 1, 2, ...5), and independent variables: X_1 = institution/university (private university = 1 and public = 0), X_2 = gender (male =1 and female = 0), X_3 = residence of the students (with family =1 and without family = 0), X_4 = family income (taka/month), X_5 = job of the guardians (service = 1 and other's = 0), e_i = random error (normally distributed with mean μ and σ^2).

Global test was adopted to test the multiple regression model. Here, the global test was mainly used to test the ability of the independent variables (types of university (X1), gender (X2), residence (X3), income of the parents (X4), and types of jobs of the parents (X5) to explain the behavior of the dependent variable (monthly expenditure of student (Y). To test the ability of the independent variables, state the null and alternative hypotheses. Null hypothesis, Ho: $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$; Alternative hypothesis, H_1: Not all the β_i's is 0.

RESULTS AND DISCUSSION

Dependency among the living standard parameters of the students:

The descriptive summary of statistical analysis of the dependent and independent variables used in the regression model as the representatives of the living standards are presented in Table 2. The table shows that the mean of monthly expenditure of the sampled students (both private and public universities) is 7,409 takas (*Taka* is national currency), which varies from 2,300 taka to 24,000 taka with a standard deviation of taka 3369.9. Most of the students of private universities expend more money on tuition fees, hired houses and maintain high standard of living than students of public universities. Most

of the students of public universities lives in government allocated residence halls and their monthly tuition fees are also very low.

Table 2. Summary of variables in the multiple regression model.

Variable	Mean	Minimum	Maximum	Standard Deviation
Dependent variable: Total expenditure (Tk/month)	7409	2300	24000	3369.981
Independent variable: Income of parents (Tk/month)	39433.33	8000	250000	33608.57

The mean per monthly income of parents of the sampled students is about 39,433.33 taka with a range between 8,000 taka and 250,000 taka and with a standard deviation of taka 33,608.57. Monthly income level widely varies from parents to parents due to their different sources of income and profession.

The outcomes of the regression model are briefly discussed in Table 3. The coefficient of determination (R^2) is about 47% with indicates that the dependent variable per mouth expenditure of the student (Y) is explained or accounted is about 47% by the independent variables that include University (X1), gender (X2), residence (X3), income of parents (X4) and types of income source of the parents (X5).

Table 3. Estimation of the variables in multiple regression model.

Variables	Coefficients	t-statistic	p-value
Constant	4056*** (1267)	3.202	0.00168
Institution (X1)	3869**** (439)	8.812	3.61e-15
Gender (X2)	-292.6 (496.8)	-0.589	0.55682
Residency (X3)	-2083**** (264.2)	-7.883	7.20e-13
Income of parents (X4)	157.9** (6391)	2.471	0.01465
Job of parents (X5)	515.6* (273.5)	1.885	0.06145
R^2	0.47		

****, ***, ** and * indicate1%, 5%, 10% and 15% significance level, respectively. The figures parentheses indicate standard error.

The coefficient of university (X1) 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 the independent variable gender (X2) in the regression model is negative and not statistically significant that indicates expenditure of the students male and female are similar. The coefficient of residence (X3) is statistically significant at 1% level and the expected sign is negative. This indicates that the students who come to university outside from Sylhet 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 no meal charge than the students who live in hired houses. The coefficient of the parents income (X4) is statistically significant at 10% 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 parent's 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 job of the parents (X5) is statistically at 15% significant,

indicating that the parent's occupation has significant role on their income of the parents. In the others words, monthly income of a family highly depends on the parent's types of occupation.

Comparison in monthly expenditure between the public and private university students:

Student t-statistic was applied to test the variation in monthly expenditure among the students of private and public universities. Monthly expenditure (both private and public universities) largely varies from students to students within the same institution mainly because of their parents' income, personal expectation standard of daily life etc. The descriptive statistics of the monthly expenditure of the students of private and public universities are presented in Table 4. The average monthly expenditure of a student of private universities is 9,060 taka with a wide range of taka between 4,500 to 24,000 and with a standard deviation of taka 3,867, whereas, the mean monthly expenditure of a student of public university is only 5,757 taka which varies from 12,300 to 11,500 taka and has a standard deviation of taka 1,542. Only public universities mean are statistically significant at 1% level. This indicates that monthly expenditure of a student varies widely within the institution (public 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 4. Comparison in monthly expenditure of the students of private and public universities

| Variable | University | | | |
	Private	t-statistics	Public	t-statistics
Mean	9060	-0.1746	5757***	-3.2164
Minimum	4500		2300	
Maximum	24000		11500	
SD	3867		1542	

*** indicates statistically significant at 1% significance level.

Comparison in parents income for public and private university students:

The summary statistics and t-statistics of monthly income of parents of the students of both private and public universities are shown in Table 5. 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 5 show that the average monthly income of the parents of private universities is 50,306 taka which is widely varied from 12,000 to 250,000 taka and with a large standard deviation of taka 42,024. The value of the t-statistics of the parents of private universities is not statistically significant, indicating that monthly income 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 28,560-taka ranges from 8,000 to 75,000 taka and with large standard deviation of taka 16,389. The value of t-statistic also is not statistically significant (Table 5). This means that the income varies within parents of the students who study in public universities.

Table 5. Comparison in monthly income of the parents of private and public university student.

| Variable | University | | | |
	Private	t-statistics	Public	t-statistics
Mean	50306	-0.0827	28560	-0.0841
Minimum	12000		8000	
Maximum	250000		75000	
SD	42024		16389	

The comparison in monthly expenditure of the students of private and public universities is presented in Table 6. 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% significance level.

Table 6. Comparison of monthly expenditure and income of the parents of public and private university students.

Variable	University	Mean	SD	t-statistics
Expenditure (Tk)***	Private	9060	3867	-6.8687
	Public	5757	1542	
Income (Tk)***	Private	50306	42024	-4.1752
	Public	28560	16389	

*** indicate statistically significant at 1% significance level.

The comparison in monthly expenditure of the students of private and public universities is presented in Table 6. 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% significance level.

Comparison in laptop or pc usage between the private and public university students:

The students access to the modern technological tools is measured by the number of the students who have personal computer (PC) or laptop. It is found that, 72% of the public university students have personal computer or laptop, while this percentage for the private university students is 81%. The comparison in laptop or PC usage of the students of private and public universities is presented in Table 7. It appears from the table that the laptop or PC usage of a student of private university is higher than public university.

Table 7: Comparison in laptop or pc usage between the private and public university students.

Response	Public		Private	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Yes	54	72	61	81
No	21	28	14	19
Total	75	100	75	100
Chi-square test: Sig. Value = 0.17 with degree of freedom = 1				

The types of massive use and qualities of the students to run different information technology (IT) and computer programs is measured from their laptop or PC price range. The results show that, 30% of the public university students who have laptop or PC, maximum price is above 50000 taka, while the corresponding percentage for private university students is 14% (Figure 4). Similarly for the ranges of price 40000–50000 taka, public university students is about 16% and private university students is about 10%. Within 30000-40000 taka the percentage is 30% for public university students and 40% for private university students. Below 30000 taka the percentage is 24% for public university students and 36% for private university students.
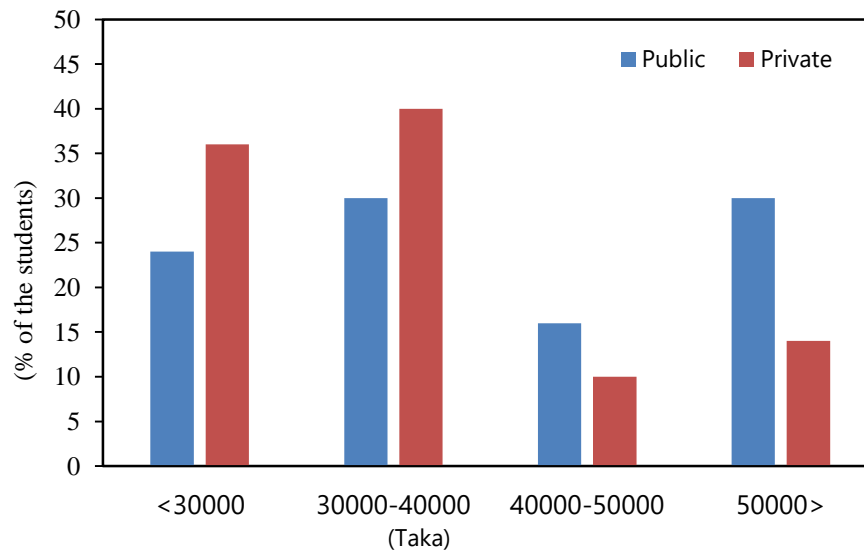
Figure 4. Comparison in price ratio of the usage of laptop or pc between the private and public university students.

Comparison in future carrier goals between the private and public university students:

The cultural diversity of the students can be understood by studying their expectation of jobs for future carrier. The survey shows that about 72% of the public university students have plan to get involved in job after completing their study, about 8% plan for business, about 15% will look for higher study and about 5% prefer to get deployed in some research sector (Figure 5). In case of the private university students about 65% plan to get involved in job after completing their study, about 28% plan for business, about 5% will look for higher study and about 2% prefer to get deployed in some research sector.
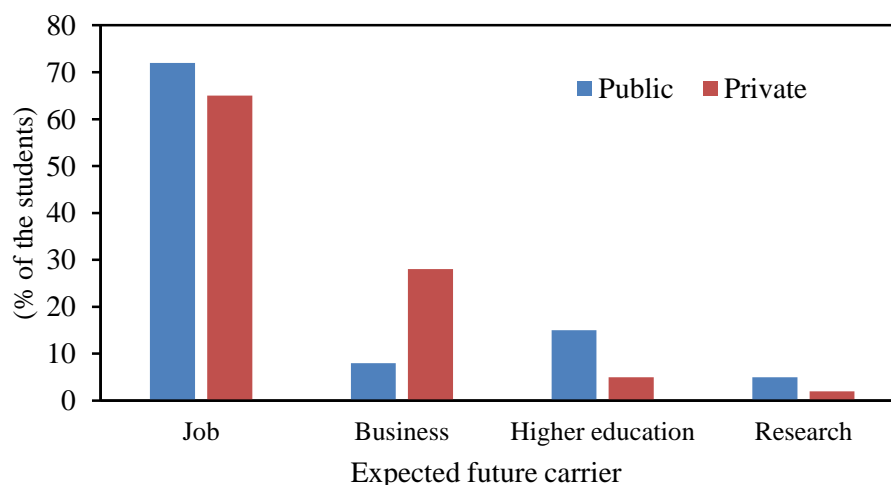

Figure 5. Comparison between the private and public university students about future carrier.

The students' preference for the jobs of private or public sector gives a more specific idea about their cultural and little bit of their psychological diversity. The data says that among the job searching students, about 72% from the public university students prefer govt. job, while in case of private university students the percentage is only 49%. Of the job searching students of the public university about 28% prefer private job, and the corresponding percentage of the students private university is about 51%. The comparison for job or business among the students of private and public universities is presented in Table 8. It appears from the table that the job or business of a student of public university is higher than that of a private university.

Table 8. Comparison between of private and public university students for job or business

Job or Business	Public		Private	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Govt.	43	72	34	49
Private	17	28	35	51
Total	60	100	69	100

Chi-square test: Sig. Value = 0.01 with degree of freedom = 1

Comparison in extra-curricular activities between the private and public university students:
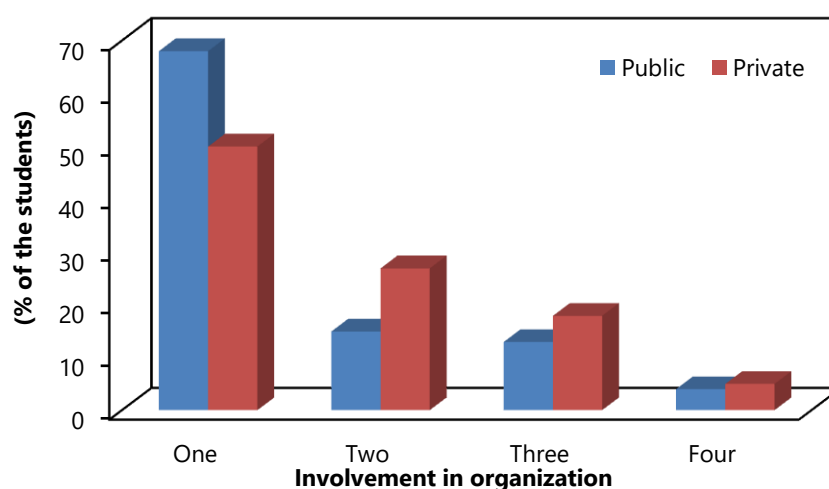
The students' inter-personal excellence can be understood well through their involvements with extra-curricular activities. The study found that about 63% of the public university students are involved with some sort of extra-curricular activity, while the percentage is about 51% for the students of private university. The comparison in involvements with extra-curricular type of the students of private and public universities is presented in Table 9. It appears from the table that involvements with extra-curricular activity of a student of public university is higher than that of a private university.

Table 9. Comparison in the involvements with extra-curricular activities between the private and public university students

Response	Public		Private	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Yes	47	63	38	51
No	28	37	35	49
Total	75	100	75	100

Chi-square test: Sig. Value = 0.13 with degree of freedom = 1

It is found that from the public university students who are involved with some sort of extra-curricular activity out of them about 68% work with one organization, 15% work with two organizations, 13% work with three organizations and 4% work with four or more organizations (Figure 6). In the case of private university, from the students who are involved with some sort of extra-curricular activity out of them 50% work with one organization, 27% work with two organizations, 18% work with three organizations and 5% work with four or more organizations.

Figure 6. Comparison in the extension of involvement in extra-curricular activities between the private and public university students.

Comparison in problem with harasses academically and academic development for the students of private and public universities:

A variety of problems are hampering students academic progress from different views and origins of the problems are also different. The public university students opinions on different problem is as follows: political instability to 55%, higher education fees to 3%, barriers created by institutions to 22%, and personal lacking is 20%. On the other hand, the public university students opinions on problems is as follows: political instability to 70%, higher education fees to 11%, barriers created by institutions to 7%, and personal lacking is 12% (Table 10).

Table 10. comparison in problem with harasses academically for the students of private and public universities.

Response	Public		Private	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Political instability	41	55	53	70
Higher education fees	2	3	8	11
Institutional barriers	17	22	5	7
Personal lack	15	20	9	12
Total	75	100	75	100

Chi-square test: Sig. Value = 0.004 with degree of freedom = 3

The student's dedication and desire for gaining academic excellence can be measured from their academic study in hours for week. It is found that, in case of public university about 29% of the students study less than 5 hours/week, 25% study 5-8 hours/week, 28% study 8-12 hours/week, 10% study 12-16 hours/week and 8% study more than 16 hours/week. For the private university students the percentage is as follows: 39% students study less than 5 hours/week, 30% study 5-8 hours/week, 13% study 8-12 hours/week, 10% study 12-16 hours/week and 8% study more than 16 hours/weak (Figure 7).
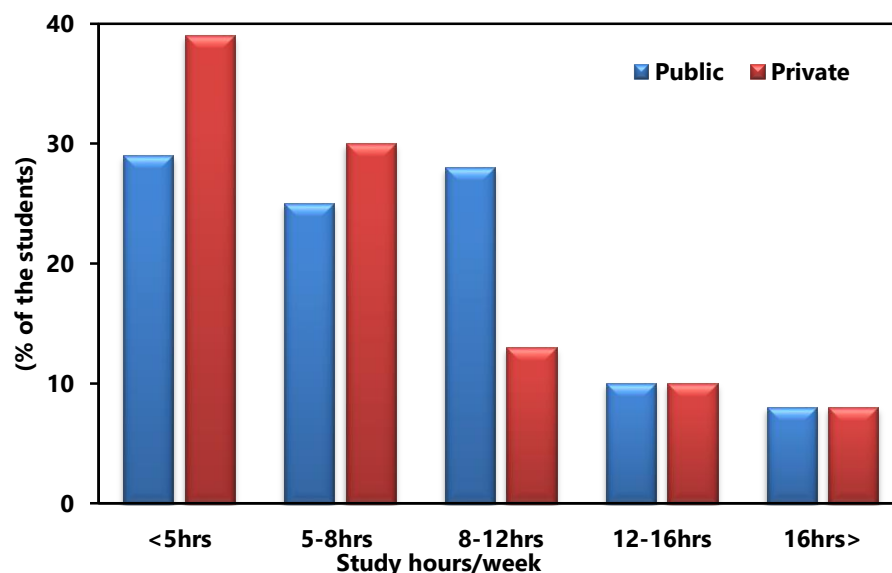

Figure 7. Comparison in study for academic development between the student of private and public universities.

CONCLUSION

The importance and scope of higher education in Bangladesh is increasing. The present study attempts to estimate the comparative socioeconomic variations on standard of public and private

universities in Sylhet city. The study has explored financial and social status of parents, educational activities of the students and the causes of enrolment in public and private universities in Sylhet. 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 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, 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 higher than that of public university. The cost of living standard also depends on the source of income and types of jobs. 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 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 halls. All these together have illustrated that the enrolment process varies from public to private universities and the standard of living in private universities is significantly higher compared to the public universities in Bangladesh.

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