

## The Extent of Private Cost in the Higher Education System of Bangladesh: Evidence from a Public University of Bangladesh

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**Abstract:** *In literature, it has been reported that students who are engaged in educational activities also bear a significant proportion of the expenditure associated with their studies. This includes costs of inquiries, application, transportation, etc.; all of these add up to the total cost of education. It is interesting to note that many educational planners and policymakers tend to ignore this crucial aspect of educational access and equity. Above this background, the main purpose of the present study is to identify the role, extent, and consequences of private education expenditures of enrolled students in the higher education system of Bangladesh. The study applies the descriptive survey method along with qualitative and quantitative analysis techniques to estimate the extent of private education expenditures. The findings of the study suggest that higher education institutions in Bangladesh and other developing worlds should attempt to do a unit cost analysis of their programs, including a component on the private costs of learners.*

**Keywords:** Access to higher education, Economics of education, Private cost of education

### 1. Introduction

Access to education has been a significant policy issue for developing countries. In this regard, the main policy concern is to ensure equitable provision and distribution across society. Currently, the lack of sufficient resource allocation from governments makes the provision harder and subsequently skewed for the marginal population. There remains substantial debate on the scope for the production mix of primary and higher studies in developing countries, as the precise marginal resources spent on each component compete for the effective outcome that the resource could generate.

The matter of education finance is contentious. Apart from the ideological settings, it is also a severe economic concern of the present-day governments because it has been deeply associated with the selection and adoption of the best practices that can generate the optimal level of skills of human resources for the country, while fully taking care of the interests of the students, service providers and the society at large. In the case of Bangladesh, the government mainly provides the cost of primary education through a subsidy. In this regard, the intention is to make equitable grounds for students irrespective of their socio-economic conditions. The government has also channelized a substantial amount of subsidies, for his/her studies but it fails to create the desired level of impact on different socio-economic groups. One of the reasons for this is the access option of higher studies in Bangladesh. At present, the system is designed for limited

access because the emphasis is given to higher studies on merit-based enrollment. Furthermore, the lack of sufficient educational infrastructure also squeezes access to higher education.

The growing demand and mismatched supply in education create scope for supernormal profits via commercialization in higher studies. In this case, a government-subsidized operation is an option to neutralize commercial force. However, the strong clout of for-profit service suppliers is against any form of subsidy in higher education as they perceived it would reduce government involvement in the market space. As an alternative option, it is also held that the industrial and service sectors of the economy must pay a part of users' charges to finance the higher education of the students because the ultimate beneficiaries of education, particularly of any skill development program in any country are the industrial and service sectors of the economies which enshrine and grow based on professional and technical skills of the trained manpower by using their services. The personnel trained at the cost of public funds generate private profits for the industry which employs the trained manpower. Thus, it is viewed that the public funds ultimately translate themselves, through skill use, into private profits. On the other hand, the industrial sector argued that they already pay sufficient taxes of various types which go to the state kitty and they also create material wealth.

A perusal of economic literature shows that the degree of externality declines with the rise in the level of education. The private return goes up substantially at the professional and technical level of education and hence makes the case for high-cost recovery from the users of the service, i.e., students. It is also considered that the students from the richer sections of society, in greater proportions, avail of the benefits of professional education and, thus, there is no rationale for any subsidization of higher education. But public policy literature shows that the poor are priced out and, ultimately, the richer reach and find greater access to higher education. The experience of advanced countries is a testimonial to the situation of exclusion and education-based stratification. Thus, it is a widely held view that the cost recovery is selective, and income linked.

In Bangladesh, at present, substantial numbers of public universities provide residential arrangements and meal access at lower subsidized prices to improve equitable access and utilization of higher education opportunities. The rationale is that it would help students from any part of the country to leave their living places and avail themselves the opportunities of higher studies at ease. However, in a broader term, the arrangement is not sufficient from equity grounds because adequate arrangement rather imposes extra expenses to those who could not get access to the limited hostel arrangements, which added educational cost. These additional costs not only increase the bar of access but also have co relational qualitative impact on the education they are going to have. Above this background, the present study intends to explore the prevailing scenario and facts responsible for the impediments for the source of such heterogeneous accessibility for higher studies in the educational system of Bangladesh.

## **2. Literature Review**

Higher education provides a sound economic foundation to those countries which are latecomers to economic development. In the quest for development, higher professional education provides the cutting edge to developing economies (National Knowledge Commission, 2006). Mainstream growth economists believe that, without developing the human resources of a country, economic development, particularly in the long run cannot become self-sustaining (Lucas, 1993; Benhabib and Spiegel, 1994; Barro and Sala-i-Martin, 1995; Barro, 2001; Krueger and Lindahl, 2001). Moreover, developing the human resources of a country means raising the skills, knowledge, and productive capacity of human beings as well as of the whole society. Many studies conducted by social scientists around the world have shown that a country remains backward or underdeveloped so long as its people remain deprived of higher education (World Bank, 2002).

Financing education has been a matter of great concern and a major policy challenge across all countries. There was a time when the educational development of a nation occurred exclusively with the availability of public resources and private participation was not considered that much necessary and good practice. The present-day advanced economies and even the newly industrialized countries of East Asia have developed their human resources with the strong backing of public funds. However, the situation changed considerably with the advent of economic reforms under the so-called neo-liberal policies. As a consequence, the education sectors of many countries were opened up to the private sector on a massive scale. It has brought up the issues of rising costs, cost recovery, and financing of education at the forefront of any discussion related to the education sector.

The nature, extent, and mode of participation of public funds in the education sector involve a long list of arguments put forward by individual scholars and institutions. These arguments mainly revolve around the 'public good' nature of higher education, dynamic externalities produced by it, its role in achieving equality of opportunities, and economies of scale (Blaug and Woodhall, 1979). However, several arguments have also been cited against the public subsidization of higher education. These arguments essentially revolve around three parameters: (a) inefficiency; (b) inequitous; and (c) pragmatic nature of these grants/subsidies.

However, the debate of increasing grants/subsidies on the one hand or rightsizing/ no grants/subsidies to higher education on the other hand has been intensified recently (Hinchiffe, 1993). In the absence of public grants/subsidies, it is suggested that the cost of higher education should be extracted from the beneficiaries (students) or financed from alternate sources like endowments, industry, charity, etc. Since professional education requires huge finances to establish and run the infrastructural facilities, therefore, costs and financing practices have attained a great deal of attention from policymakers and academia. The nature of informality in terms of hidden cost is common in developing countries. In the case of education, such costs are very common in the private sector. All the stakeholders bear the cost either as the suppliers of the activity or as the demanders/users of that activity/service.

The cost of education refers to the cost incurred by the state government or private sector for providing education to the citizens. Thus, the cost of education is divided into two broad categories, i.e. institutional cost and private cost (Kumar, 2004). It is widely held that professional education is associated with high-income job opportunities. Naturally, due to the high expected returns, the students or their parents have greater demands for these courses and are ready to pay considerable amounts of money to acquire education of various professional types. And, the students or their parents, in the absence of state support, have to pay for numerous educational activities. For instance, they have to make payments directly to the college/institute in terms of fees and funds and other associated charges which include books and stationery, living expenses, etc. In this process, the total cost of acquiring professional education goes up considerably (Ghuman, Singh, and Brar, 2009). Todaro (1985) discussed the issues of demand for and supply of education and concluded that private costs of education are inversely related to the demand for education. Private costs are high at a higher level of education because of the low government subsidies.

Pickford (1975) discussed comprehensively the economic aspects of administration in a university in the U.K. The main objective of his study was to investigate potential economies in the cost of producing students in the university. The study is divided into two parts. The first part of the study contained a detailed analysis of current costs like teaching and research by the course of education. However, the second part of the study dealt with the economies of scale in certain university resources. The study also suggests changes in the existing system of finances so that scarce resources could be efficiently utilized. Ramachandran (1987) attempted to analyze the problems of higher education in India with special reference to the Kerala state for the period 1952-75. The study revealed huge growth in students' enrollment, the number of institutions, and expenditures during the study period. But the growth of expenditure was found to be higher as compared to enrolment and institutions. The bulk of public expenditure on higher education was spent on the development and maintenance of arts and science colleges in Kerala, and the salary constituted the largest component in the total cost of education. While analyzing the cost of education, Kiranmayi (1989) studies the role of organizational structure, financial management, and their weaknesses in the universities. It discussed the pattern of income and expenditure of the universities and suggested that there was an urgent need to evaluate their financial management.

The foregoing review of available literature reveals that most studies revolve around the estimation of the recurring cost of education. Adequate attention is not given to the estimation of the private cost of education. In most studies, it is also evident that even about the estimation of recurring expenditure, maximum attention was paid to salary (teaching and non-teaching), stationery, consumables, repair and maintenance, communication, sports, etc. However, certain items like the cost of the examination, scholarship, and stipends, fee concession and publicity, etc., were excluded from the calculation of cost. Similarly, in private cost the main focus of the studies was on the tuition cost, however, non-tuition components of private cost of education are still

waiting for proper attention. Overall, no full-fledged study is available which discusses the total cost of education comprehensively. As far as the financing of higher education is concerned, mixed approaches have been adopted and recommended by these studies. Few studies favor the withdrawal of public subsidization and suggest fee hikes and student loans to finance higher education. On the other hand, many studies do not favor the withdrawal of public support for higher education. In the context of Bangladesh, where public subsidy is one of the most important elements of educational financing, not many attempts have been made to measure the extent of subsidization or to evaluate the benefits flowing from it. Thus, the present study makes a serious attempt to measure the private cost of higher education along with their source of financing.

### **3. Methodology**

#### **3.1 Research design**

The study used a mixed strategy both for data collection and analysis techniques. For data collection, the descriptive survey method was used with a combination of quantitative (questionnaire) and qualitative (interview) measurements. Both qualitative and quantitative data were collected from the study sample at the field level. For quantitative data collection, a prequestionnaire was developed based on information gathered from the literature review on specific key variables regarding the study questions. Several FGDs' were administered to catch the qualitative nature of the analysis on various issues.

In the analysis phase, data were used from both primary and secondary sources. Mainly a comparative analysis framework is used to derive implications from the results of data analysis. Computer software MS Office and for data analysis statistical software STATA used in the study. The specific queries of the study are followings:

- a. Identify the major living expenditure components of the student.
- b. Identify the financing sources of living expenditures.
- c. Identify the role of the living expenditures on the shape up of student lifestyle.

#### **3.2 Population and sample**

All the students registered in the year 2013-14 for bachelors' degree programs of Jagannath University, constituted the population for the study. Using a stratified sampling technique, 120 students were randomly selected as samples. The institution represented the progressive nature of higher education in Bangladesh. The strata were identified in several stages. In the first stage, the programs on offer by the four faculties of Jagannath University were identified, to determine similarity in the list of honor's programs offered by the institution. This was done by an analysis of the admission regulations and program brochures of the four faculties. The four faculties that offer programs are Bachelor of Science (B.SC.), Bachelor of Arts (B.A), Bachelor of Business Administration (B.B.A), and Bachelor of Social Studies (B.S.S.) In the end, students selected for this study are from the most popular programs in the four faculties, having high enrolment rates.

Given that only the students of session 2013-14 are eligible to be selected for the study,

the researcher decided to administer the research instrument only to the second-year students of the four faculties. It was considered that, at this level, they had completed at least a full session of academic activities in their respective faculties under the selected programs. Adequate and representative samples – modified to a 10% round-off figure per group -were selected from the four programs under each faculty. Thus, 30 students per program per faculty led to a total sample of 120 students.

## **4. Results**

### **4.1 Characteristics of respondents**

Analysis of the demographic information provided by the respondents indicated that the study sample comprised 75 males and 45 females. Among those, 42 percent were among the 19-21 years age-range, while 33 percent were among the 22-24 years age-range and the remaining 11 percent were within the 25-27 years age- range. Besides, about 65% of the respondents were single, while 27.5 percent were married, and 7.5 percent of respondents indicated that they were either divorced or widowed. All the respondents were full-time students, despite 27.5 percent of the sample students also mentioned them employed. In the case of educational qualification, 63 percent of the respondents had completed the Higher Secondary School Certificate (HSC) examination before enrolling in their current program, while about 26 percent completed Alim from the Madrasha education board and about 10 percent of respondents already possessed National Diplomas (technical education board) before enrolling for the current program. Table 1 attached in Annex contains more detailed information about the demographic characteristics of the study sample.

Among the sample, 37.5 percent of students are from urban areas and 62.5 percent of students are from rural areas. Details are available in Table 2 attached in Annex. However, lots of students despite living in rural areas had completed their studies in urban centers before enrolling in Jagannath University as the survey revealed that 27.5 percent of students had passed their matriculation (10th) or higher secondary (Plus 2) or both of the examinations from the schools located in rural areas of Bangladesh. The rest of the students (87 students; 72.50 percent) had passed either their 10th or plus two or both level examinations from the schools located in the urban areas.

### **4.2 Private cost of education**

The cost of any economic activity could be measured from numerous angles and perspectives. All the stakeholders bear the cost either as the suppliers of the activity or as the demanders/users of that activity/service. The cost of education refers to the cost incurred by the state government or private sector for providing education to the citizens. Thus, the cost of education is divided into two broad categories, i.e., institutional cost and private cost (Kumar, 2004).

The private cost refers to the part of expenditures/investments that are incurred either by the parents or students or both (Kumar, 2004). It means that financial expenses incurred by the students or parents or both (including relatives, etc.) in a year for acquiring

education are called the private cost. The private cost of education may be classified into two categories: (i) academic cost and (ii) maintenance cost. Academic cost refers to expenses on the items such as fees and funds paid to the institution (i.e., tuition fees, examination fees, library fees, laboratory fees, etc.), payments made for getting private coaching, books, stationery, instruments, etc. Maintenance cost includes expenses incurred on clothing, transport, boarding, lodging, and other sundry expenses (Kumar, 2004). It is also known as the incidental cost. In the present study, various types of expenditure flow to acquiring higher professional education have been worked out comprehensively and arranged in a systematic order to put forward a wider spectrum of payments made by the students. The expenditure items have been clubbed under six headings: (a) Fees and Funds; (b) Books, Stationery and Photocopy; (c) Cloth and Garments; (d) Mobile/Telephone; (e) Canteen Bill, and (f) Others.

It is important to note that fees and funds constituted on an average of more than 30 percent of the total expenditure across courses for all the disciplines. Please see Table 4 attached in the annex. For instance, fees and funds shared 37.61 percent in the B Sc course, followed by the BA course (38.61 percent); the BSS course (36.93 percent); and BBA (36.84 percent). The next major expenditure category is books, stationery, and photocopy. It constituted 20.16 percent of the total cost for a sampled student enrolled in B Sc courses; 19.20 percent for B A courses; 20.93 percent for BSS courses and 20.85 percent for BBA courses. From the above data, it is evident that in a running semester, more than 50 percent of the maintenance costs are comprised of fees and education supply. These costs are private costs and are borne by the students or their parents.

#### **4.3 Direct living cost**

Many of our sample students are admitted to Jagannath University from various parts of Bangladesh and mainly come from periphery areas, so they have to bear a substantial amount of cost for their living arrangements in Dhaka City. Table 5 attached in the annex shows the average monthly living cost of the surveyed student.

The study findings discern that the students staying with relatives as a paying guest have a lower average monthly living cost compared to the students who are residents of a privately-owned hostel or mess. In these cases, the average monthly cost is 1396 taka less. The main difference in cost categories is rent and food costs. The rent for a hostel or mess is 1950 taka whereas the rent to stay as a paying guest is only 1200 taka. The expense of food also makes a huge difference in their living cost as it costs only about 1055 taka per month as a paying guest while when staying in a hostel or mess, it costs about 1865 taka. The other big difference in the monthly cost of students is the transport cost. On average transport cost for a student staying as a paying guest is found 562 takas while 398 takas for a student staying in a privately-owned hostel or mess. One explanation for the transport cost differential is the proximity of stay around the institution. Most of the hostel/mess is within proximity of the university than the paying guest option.

#### **4.4 Source of finance**

Table 6 attached in the annex provides information about financing practices adopted by the students for getting an education at Jagannath University. The study also explores the financing options for students. Students are mostly dependent on family members, so family income is important to finance their education costs. As expected, it revealed most of the students depend on their parents' income for financing their study expenditure, more than half of the students, 52.50 percent, belong to this category. Gender-wise division of students revealed that 59.75 percent of male students and 85.71 percent of girl students depend upon their parents to finance their education. If we consider the broader view, then 82 percent of students are financed directly a portion of their education cost from their families. The proportionate share of other sources was as follows: other family members/relatives' 22.5 percent; remittances 9.16 percent; loan from relatives' 8.33 percent; and partial scholarships 7.5 percent. The findings regarding full scholarship are quite astonishing as no one is getting any sort of full scholarship. It is important to consider that a few sampled students were reported to be getting fee concession of partial nature to finance their studies. It is unfortunate that out of 120 sampled students, just five students (4.16 percent) are found to be availing of fee concession.

#### **4.5 Cost sharing**

Among the respondents, 44.16 percent have consistent monthly income besides their family income. Most of them are earning below Tk. 5000 in a month. Most of them are self-employed by providing tuition support and coaching to others. Most of them provide tuition to more than two individuals and it requires a substantial number of daily working hours. A very few, only 1.6 percent, have a monthly income in the range of Tk.7500 to Tk.10000. These two people are employed in private sector services industries. Students who can generate income are spending the income either to finance their education costs or living costs. In this regard, 83 percent are spending the income to finance the full or portion of their living cost. In the case of whether their income is adequate or not 73.5% opined that their current income is sufficient to cover the education cost but in the case of financing both the living cost and education cost only 11.32 percent expressed their income is sufficient.

#### **5. Conclusion and Policy Recommendation**

In literature, it has been reported that students who are engaged in educational activities also bear a significant proportion of the expenditure associated with their studies. The findings of the present study also corroborate the findings of earlier researchers on the issue of the private cost of education (Hulsmann, 1997; Bloom, Canning & Chang, 2005; Psacharopoulos, 1978).

Like other developing countries, the provision of higher education in Bangladesh tends to be state-funded; however, there is a neglected aspect of this funding. This does not include costs of inquiries, application, transportation, etc., all of which add up to the total cost of education. It is interesting to note that many educational planners and



policymakers tend to ignore this crucial aspect of educational access and equity. Even if the higher education system is completely free of tuition (which it is not), there are still some costs that the institution cannot easily bear for the learners, especially those associated with commuting to and from the learning centers in the case of distance teaching institutions. In many cases, students are required to pay stipends for accommodation. Due to income differentials, it is realistic to assume that none of these costs are insignificant. Thus, as the above analysis suggests, students bear significant private costs associated with their learning, apart from the institutional (social) costs that are borne by the government.

The findings of the present study indicate that there were significant costs borne privately by learners. This has serious pedagogical implications in the sense that it pressurizes the student to seek alternative sources of funding to complete their study. In insignificant cases despite enrolled in full-time study, students opted for earning by providing private tuitions in the neighboring locality of their living places to earn a significant portion of their living cost or private cost of education. Sometimes they seem to travel long distances within the metropolitan area to do the private tuition. In both cases, a significant share of their study time has been compromised. And in turn, it hampers their study qualitatively with the intervening psychological factors caused by socio-economic inadequacies or obligations to the sourcing of private cost (They do need to excise concern about how to raise funds to complete their tuition fees or lose their studentship) – a fact that can affect students' academic performance.

To sum up, the cost evidence indicates that students and/or their parents expend a significant volume of money on the acquisition of higher education. This is different from the proportion borne by the student and or the state which is usually recorded by cost analysts. This study has attempted to crystallize the study of a cost analysis of university education in Bangladesh with particular emphasis on the impact of private costs. In many cases, concerned authorities/most providers of education are not aware of the actual total cost of their programs in terms of including private expenditure. This study has helped to provide a more lucid explanation of the cost implications of education at the university level. This explanation would be beneficial for planning purposes of university authority, scholarship and bursary awarding organizations—such as state governments and local governments.

It is also suggested that higher education institutions in Bangladesh and other developing world should attempt to do a unit cost analysis of their programs, including a component on the private costs of learners. This would guide them in further program evaluation activities which are designed to assess the effectiveness of the learners that enrolled for their programs. One of the recommendations that have also emanated from this study is that scholarship agencies and funding organizations should consider the private cost of the learning system more so that it can eliminate other costs that are not usually accounted for within their funding budget.

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### Appendix

**Table 1. Demographic characteristics of respondents**

	VARIABLE	BSC(N=30)	BA(N=30)	BSS(N=30)	BBA(N=30)
<b>Gender</b>	Male (75)	19	18	21	17
	Female (45)	11	12	9	13
<b>Age</b>	16-18	5	3	3	4
	19-21	11	10	10	9
	22-24	9	13	14	14
	25-27	4	4	3	3
	Above 27 years	1	-	-	-
<b>Marital status</b>	Single	22	17	18	21
	Married	6	9	10	8
	Separated	2	3	1	-
	Divorced	-	1	1	1
<b>Employment status</b>	Student	22	26	20	19
	Employed	-	-	3	5
	Self-employed	8	4	7	6
<b>Qualification before the current registration</b>	HSC	26	14	17	19
	Alim	3	12	10	6
	Diploma	1	4	3	5

Source: Primary Survey, 2015

**Table 2. Permanent resident address and previously attended educational institutions**

	Residential Address	Location of School
Urban	45	87
Rural	75	33
Total	120	120

Source: Primary Survey, 2015

**Table 3. Income distribution of Sample student**

Income range	No. of Respondents (House Income)	No. of Respondents (Personal Income)
< Tk.5000	3	43
Tk. 5001- Tk.7500	10	8
Tk. 7501- Tk.10000	14	2
Tk. 10001- Tk.15000	14	-
Tk. 15001- Tk. 20000	37	-
Tk. 20001- Tk. 25000	17	-
Tk. 25001- Tk. 30000	9	-
Tk. 30001- Tk. 35000	7	-
Tk. 35001- Tk. 40000	5	-
> Tk. 40000	4	-
<b>Total</b>	<b>120</b>	<b>53</b>

Source: Primary Survey, 2015

**Table 4. Average per semester cost of acquiring education at Jagannath University**

Course	Fees and Fund	Books stationery and Photocopy	Cloth and Garments	Communication (Mobile/Telephone/I nternet)	Canteen	Others	Total
B Sc	2330	1249	460	643	945	568	6195
B A	1910	950	445	459	736	446	4946
B S S	2050	1162	490	547	786	516	5551
B B A	2115	1197	550	569	820	490	5741

Source: Primary Survey, 2015. Amounts are in Taka

**Table 5. Average monthly living cost for a student who comes from the periphery to Jagannath University**

	Rent	Food	Household Goods	Transport	Personal Item	Total
Resident in the privately-owned Hostel/Mess	1950	1865	340	398	295	4848
Staying with Relatives (paying guest)	1200	1055	410	562	225	3452

Source: Primary Survey, 2015. Amounts are in Taka

**Table 6. Distributions of Sampled students in JNU by the source of Financing**

Source of Finance	No of Student
Parents Exclusively	63
Other Family Members/Relatives	27
Foreign Remittances	11
Loan from relatives	10
Full Scholarship	0
Partial Scholarship	9
<b>N</b>	<b>120</b>

Source: Primary Survey, 2015

**Table 7. incomes spending of students who earn besides study**

Categories	No of Student
The proportion of Income spend on Education cost	53 (100%)
The proportion of income spent on the Living cost	44(83%)
Current Income is sufficient to cover the education cost	39(73.5%)
Current Income is sufficient to cover the education cost and living cost	6(11.32%)

Source: Primary Survey, 2015