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Higher Education Budget for Human Resource Development: Bangladesh Perspective

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HIGHER EDUCATION BUDGET FOR HUMAN RESOURCE DEVELOPMENT: BANGLADESH PERSPECTIVE

PhD Dissertation

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A Dissertation

Submitted to the Institute of Education and Research, University of Rajshahi in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

in

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Dedicated
To
My Family
With
Heavenly Parents

DECLARATION

I do hereby declare that the dissertation entitled **HIGHER EDUCATION BUDGET FOR HUMAN RESOURCE DEVELOPMENT: BANGLADESH PERSPECTIVE** submitted to the Institute of Education and Research, University of Rajshahi, Bangladesh as a partial fulfillment of the requirements for the degree of Doctor of Philosophy in Education Budgeting is an original work. Neither the whole nor any part of it was submitted to any other university or institute for any other degree or diploma. My indebtedness to other researchers and their contribution has been duly acknowledged at the relevant places of the dissertation.

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CERTIFICATE

I have the pleasure to certify that the dissertation entitled **HIGHER EDUCATION BUDGET FOR HUMAN RESOURCE DEVELOPMENT: BANGLADESH PERSPECTIVE** submitted by **Shakhawat Hossain Sarkar** to the Institute of Education and Research at the University of Rajshahi, Bangladesh for the degree of Doctor of Philosophy in Education Budgeting is an original research work done by him under my supervision. To the best of my knowledge, this dissertation has not been previously submitted for any diploma or degree to any other university or institute. Materials obtained from different sources have been duly acknowledged by the researcher in the relevant places of the dissertation.

I strongly recommend for sending the thesis to the learned examiners for evaluation in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Education Budgeting.

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Shakhawat Hossain Sarkar

Researcher

LIST OF ACRONYMS

BANBEIS	Bangladesh Bureau of Education Information and Statistics
BBS	Bangladesh Bureau of Statistics
BCS	Bangladesh Civil Service
BOU	Bangladesh Open University
BPSC	Bangladesh Public Service Commission
BSMMU	Bangabandhu Sheikh Mujib Medical University
BSMRAU	Bangabandhu Sheikh Mujubur Rahman Agricultural University
BTU	Bangladesh Textile University
BUET	Bangladesh University of Engineering and Technology
CPI	Consumer Price Index
DSHE	Directorate of Secondary and Higher Education
DUJA	Dhaka University Journalists' Association
GDP	Gross Domestic Product
GER	Gross Enrollment Ratio
GNP	Gross National Product
GOB	Government of Bangladesh
HDI	Human Development Index
HDR	Human Development Report
HE	Higher Education
HEF	Higher Education Fund
HEIs	Higher Education Institutions

HRD	Human Resource Development
HSC	Higher Secondary Certificate
JKKNIU	Jatiya Kabi Kazi Nazrul Islam University
MBSTU	Mawlana Bhashani Science & Technology University
MOE	Ministry of Education
MOPME	Ministry of Primary and Mass Education
NCTB	National Curriculum and Text Book Board
NI	National Income
NU	National University
OECD	Organization of Economic Cooperation and Development
R&D	Research and Development
RU	University of Rajshahi
RUET	Rajshahi University of Engineering and Technology
SSC	Secondary School Certificate
TA/DA	Travelling Allowance/Daily Allowance
TVET	Technical and Vocational Education and Training
UGC	University Grant Commission
UK	United Kingdom
UNDP	United Nations Development Program
UNESCO	United Nations Educational Scientific and Cultural Organization
USA	United States of America
VET	Vocational Education and Training

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ABSTRACT

The present study is concentrated on higher education budget, its allocation, implementation, and utilization for human resource development (HRD) in Bangladesh. The study also strives to discover the financial and nonfinancial challenges of higher education budget for HRD and to find out the ways to overcome those challenges. The core objective of the study is to analyze higher education budget against local, regional, and global benchmarks. Utilization of higher education budget is dependant variable, while session jam in higher educational institutions, unemployment, and employment nature of higher educated people are three major independent variables of the study. The study is based on both secondary and primary sources of data. Secondary data has been collected from different published sources and primary data has been collected through responses of semi structured questionnaire form 557 alumnae of the public universities who are in job required non-technical entry qualifications and from 63 faculties of public universities in Bangladesh. Collected data has been edited, coded and tabulated in a methodical way. Monetary value has been converted into current value of money based on consumer price index (CPI) of Bangladesh Bureau of Statistics (BBS). Descriptive statistics such as frequency, mean, mode, standard deviation (SD), co-efficient of variation, range, minima, maxima and inferential statistics such as ANOVA, sample mean t-test, Chi-square test along with charts and diagrams have been used to analyze data and to find out results. All the statistical analyses have been conducted with the help of Microsoft Excel and SPSS 15 version.

Empirical results demonstrate that the trend of revenue budget allocation on education and UGC grants to public university budget (percentage) in Bangladesh have been decreasing gradually over the period. Public expenditure of higher education as percentage of GDP and government expenditure have been far below than the suggested norms of different Education Commissions in Bangladesh since independence and also the practices of South Asian countries. More discouraging is that the public universities in Bangladesh are spending a notable amount from undisclosed or unidentified or unexplained sources, which is a sheer violation of budget manual. This situation suggests lack of transparency in budget execution. Another most revealing feature of public university budget is that the major portion of the budget has been spent for salaries and pension (about three fourths) where as only one-tenth for education contingencies. Major part (about three fourth) of education contingencies exhausted for exam related expenses and remaining part for education expenses & students' facilities as against a negligible amount of total budget has been spent for research, fellowship and scholarship during the whole period of review. Expenses on major sub-heads of education contingencies are significantly dissimilar among different categories of universities.

Human resource development scenario in Bangladesh is also in a very poor shape compare to other South Asian countries, least developed and developing countries. There is a high positive correlation between national education budget and HDI value of Bangladesh. The adult literacy rate of Bangladesh is lower than the average of least developed countries and South Asian average, not to talk of World average.

High unemployment rate is a reality in Bangladesh. A large part of higher education budget has been unproductive mainly because of short-term and long-term unemployment and Bangladesh has been deprived of getting the services from those unemployed higher educated people. On the other hand session jam has been creating extra financial pressure on the government and on the guardians. Students are delayed to start their working life and consequently, the country is deprived of getting the services from the graduates for the period of session jam. Job nature has a pressure on utilization of budget. Technical graduates usually consume 3 to 5 times more money than the general graduates and as such about half of the government expense against any technical graduate is an unproductive investment when s/he works in non-technical job.

Insufficient budget allocation is one of the main budgetary challenges for higher education in Bangladesh. Similarly, inappropriate utilization of budget due to session jam, unemployment and job nature of higher educated people is also a major challenge for higher education budget. There are some other challenges such as lack of appropriate plan and its proper implementation, slavish national politics in higher educational institutions, importance of political identity over merit while selecting as well as promoting academic and nonacademic staff, assigning different charges to them, abuse of public university autonomy, and also absence of quality research, etc. Unmatched between expected and actual study area and or study discipline decreased the interest of the students in higher education. Similarly, unmatched between expected and present job is obstacle to utilized working ability of higher

educated employee fully. All these are indirect challenges of higher education budget in Bangladesh. Higher education of Bangladesh is not standard enough to meet the local and international standard. Consequently, unemployed higher educated people are increasing gradually. To defeat all direct and indirect challenges of budget for higher education, budgetary allocation should be increased to a rational level and proper implementation of the same following budget manual should be ensured. Special emphasis should be given on the allocation for research, fellowship and scholarship and create an environment for quality research. Some alternative sources of finance such as arranging loan for students, strengthening relationship with scholarship providers, involving professors in consultancy, research projects, research grant etc in addition to government grant and tuition fees should be looked for by the public universities in Bangladesh to alleviate extra pressure on their budget.

Chapter One

INTRODUCTION

INTRODUCTION

This chapter presents introductory aspects of the study and includes statement of the problem, definition of key terms, objectives of the study, research questions, rationale, conceptual framework, scope and limitation of the study, and structure of the dissertation along with a brief conclusion.

1.1 Prelude

Education is the backbone of a nation and higher education is one of the most important elements of the education system of a country because it aims at generating new knowledge, exploring research work in different technical, social and development issues, and looks forward to the needs of the economy and society and produce skilled human assets. Higher education contributes to the development of economy, democracy and culture and to the individual development of citizens, which means that higher education influences all the main components of national development. This is why cost of higher education is a highly profitable investment. Higher education transforms a limited number of people into skilled human resources in different areas of knowledge considering the need of a country as well as global perspective to get financial and non-financial return from them. Universities are to produce human resources with skills and technical know-how to expedite economic and social development of a country (UGC, 2006, p.11). According to UNESCO, “higher education is no longer a luxury; it is essential to national, social and

economic development" (Bhatia & Dash, 2010, p. 138). Bangladesh as a densely populated developing country has opportunities of human resource development with the goal of national development through investment in higher education. Higher education should be planned in a way that can produce skilled human resources having high demand in the labor market at home and in abroad. Over population in Bangladesh is not a problem by any means if we can transform them into human assets instead of burden through appropriate planning and world class education. The Government of the People's Republic of Bangladesh has also given topmost priority on human resource development though education. This sector needs huge investment, but Bangladesh as a densely populated developing country has its inherent financial limitation to support higher education and research. Most of the higher educational institutions especially public universities have acute shortage of teaching learning aids and infrastructural facilities due to low budgetary provision. On the other hand session jam in higher educational institutions, unemployment for short-term and long-term of a significant number of higher educated people, underemployment, and employment of technical graduate in non-technical job are common issues of discussion and debate in Bangladesh. Due to these problems a notable amount of budget has been utilized in unproductive means, but to date the volume of unproductive investment in higher education has not been identified through a scientific method. In this context, it is essential to find out the answer to the question, whether allocation of budget for higher education or its proper utilization is the main constraint?

1.2 Statement of the Problem

Education for all and assurance of quality education are the prime objectives of a Government (Rahman, 2010). It is generally believed that education contributes to economic growth through acquisition of training and skill, and it is to be an instrument of poverty reduction (Adawo, 2011, p. 46 & 55). The important channels through which education affects economic growth are improvements of the quality of labour as well as improvements of the quality of physical capital through the functioning of knowledge accumulation (Hossain & Khan, 2012, p. 71). In the era of globalization when intellectual capital is increasingly prized, both for individuals and nations, higher education has become vitally important because it can produce critical thinkers and innovators, as well as healthy, informed and engaged citizens (Chaudhary, Iqbal, & Gillani, 2009). Well trained human resources accelerate economic productivity, and economic productivity generates resources to invest in higher education development (Shin, 2012).

Education quality low or high is judged by the extent of its objectives are met (Bhatia & Dash, 2010, p. 146). It is a common observation that the quality of higher education has gone down in Bangladesh (Khatun, 2003, p.50). Quality is a serious concern in universities of Bangladesh, and UGC has miserably failed in its role as a guardian of public universities and as a promoter of quality education (Chauhan, 2008, p. 36). No accreditation body exists that could ensure quality and determine the strengths and deficiencies of programs, and no known internal quality assurance cells

within universities in Bangladesh (Aminuzzaman, 2011, p.7). The unemployment of huge products of education implies that education is not effective and relevant for their absorption in appropriate jobs in Bangladesh (Islam, 2008, p.146).

Education is universally recognized as an investment in human resources (Rao, 2006, p. 19). Low investment in HRD is one of the major problems and with the current level of investment in education and skills development, the South Asian countries cannot develop their workforce to be competitive in the global market and enhance the productivity (Khan, 2009, p.1). The participation of women is not more than 40 percent in any SAARC country; the quality of education is substandard and spending on education ranges from 2 percent to 4 percent of the gross national product (GNP), which is less than UNESCO (Chauhan, 2008, p.29) standard of 4 percent of GNP for developing nations. The purpose of higher education is to generate innovative knowledge, at the same time to build up skilled manpower (GOB, 2010, p. 23). The traditional function of higher education is to train future leaders of a society and develop high level manpower for professional, technical and administrative functions (Khatun, 2003, p.46). If this manpower is not placed in the right places, the higher education function will fail to give benefits to the society and economy of a country. So it is urgently needed to develop human resources giving emphasis on both local and global perspectives as well as ensuring proper placement of those graduates. The university education has been recognized as a powerful instrument of human resource development, which is virtually necessary for

poverty alleviation and activating the economic growth of a nation (Islam, 2012, p.41). The human capital concept recognizes that human beings are more important than physical capital in creating wealth (Heckman, 2005, p. 54). The dominant human capital theory has, however, narrowed HRD down to its economic aspects, or its human capital component (World Bank, 1995 cited in Rena, 2006, p. 68).

Budgeting can be recognized as a central element in the organizational control system that keeps a balance between revenues and expenditures, manage the resources interface with the environment, and reduce uncertainty (Pfeffer & Salancik, 1974 cited in Lepori, Usher & Montauti, 2013, p.60). It is the main framework of resource management in educational institutions and it is both an implementation device and a control mechanism (Enaohwo, 1990). Budgeting is a part of the economic cycle wherein the higher education institutions (HEIs) acquires resources from different sources and divide them among organizational subunits, faculties, departments, research centers, services, in order to realize activities which potentially lead to the acquisition of further resources (Lepori, Usher & Montauti, 2013).

Public expenditure on education is very low in Bangladesh. After independence in 1971, Bangladesh has not been fulfilling the recommendations of different education commissions, 4 to 5 percent of GDP/NI, on education expenditure. Actual expenditure was far below the recommended level over the period. Education sector allocations are currently about 2.3 percent of GDP and 14 percent of total government expenditure in Bangladesh (GOB, Sixth Five Year Plan, p.293). Government

budget allocation on higher education is 1.0 percent of National budget in Bangladesh. This budget allocation is not enough to meet the minimum demand of public universities (UGC 2012, p. 227). The public higher educational institutions can only allocate a small amount for research and development in Bangladesh, in some universities it was less than 1 percent (Aminuzzaman, 2011, p. 10). The real challenge to educational finance is represented by meeting increasing costs against limited funds and the greatest hope lies in maintaining educational quality while reducing costs per graduate or increasing quality along with maintaining costs at present level (Aftab & Ahson, 2009, p.78).

Higher education consumes a large portion of public and private funds to ensure economic development, but because of existing job pattern in Bangladesh and requirements placed in recruitment, contribution from higher education is not satisfactory (Alam, Khalifa, & Shahjamal, 2009). A large number of job advertisement such as BCS general cadre, non cadre 1st class and 2nd class executive jobs under PSC recruitment, Bangladesh Bank and other Government owned Banks etc., require only graduation or post graduation from any discipline of any recognized university. Due to the conditions of job advertisement, job crisis in technical fields and or personal interest, technical graduates compete with non technical graduates. Examination system of those jobs gives some advantages to the graduates of technical fields especially science graduates. According to the nature of those jobs, technical graduates are not essential, but they are joining in those non-technical jobs due to job crisis and defective recruitment system with or

without job satisfaction. But the objective of technical university is to produce graduates in technical fields for contributing to their respective fields. It should be mentioned here that the yearly per student public expenditure in technical university is several times higher than general university. In 2012, per student public expenditure in Dhaka University was Tk.88,817 (0.39 time) and Rajshahi University was Tk.43,914 (0.19 times) as against Tk.2,28,648 in Bangladesh Agricultural University (UGC, 2012, p.144). A point is to be noted that general universities are also producing graduates in highly technical field such as agricultural, engineering, veterinary, etc. Per student yearly expenses against of these graduates is not homogeneous with graduates of non-technical field due to huge expense in the laboratory in those technical departments, but comparative figures with non technical departments are not easily available. More revealing is that per student government expenditure in government colleges was very low in 2005-06 (Tk.5,556 or 0.13 times only) as against per student expenditure in public universities at Tk.42,643 (Mamun, 2008, p. 26-27). Higher education which consumes more money per student from public sector, if not relevant is a total waste, so the present pattern of higher education needs to be reformed through national planning, manpower requirements and educational relevance (Islam, 2008, p.146). Doctors, agronomists, and engineers are working in different careers not relevant to their respective fields (those of policing, administration, foreign affairs, and banking for instance) testimony that investing in producing these graduates is ill-advised (Alam, Khalifa, & Shahjamal, 2009, p.569).

Admission into the universities is based on the result of admission test and only the top few percent of the successful candidates enjoy the privilege to be admitted into the subject of their own choice (Khatun, 2003, p.48). Most of the students fail to take admission into their area of interest. It is a big obstacle to knowledge amplification of meritorious students in the right way as most of the students demoralized when they failed to entry in their own area of interest.

Public universities in Bangladesh are heavily dependent on government for their revenue and development budgets, and more than 90 percent of their revenue budget and 100 percent of their development budget are provided by the government (Khatun, 2003, p.52-53). There are debates about the quality of education and budgetary provision for higher education in Bangladesh. No Bangladeshi university is in the list of top 400 World's best universities (U. S. News, 2011). On the other hand, in the ranking web of world universities July 2012, position of Bangladesh University of Engineering and Technology (BUET) was 2398 and BUET was the 1st position Bangladeshi university in the ranking. The public universities suffer from quality related problems and public universities, except the top few, do not have the facilities needed for quality teaching (UGC, 2006, p. 14). In public universities of Bangladesh some teachers are not interested in research due to job security, unique system of promotion rule where research is less important than length of service, administrative work, and other extra academic activities. As a result teachers publish a certain number of articles in a given period of time, and get promotion. Once one becomes a professor,

there is no compulsion or incentive to publish (Aminuzzaman, 2011, p. 10). On the other hand number of publication is considered for promotion, but not the quality of the article or journal. All the public universities in Bangladesh are running with deficit budget. They are forced to cut down even essential expenditure such as procurement of books, journals, equipment, chemicals for laboratories, research, maintenance etc. (Khatun, 2003, p.52-53). The cost of higher education in Bangladesh is mostly publicly financed and one of the lowest in the world (Islam, 2012a, p.27). Our universities are viewed mostly as teaching institutions with no expectations or incentives for research (Rizvi, 2009, p.51-52).

In recent time a series of news and articles on higher education in Bangladesh have been published in print media. Jahangir (2012) in Prothom Alo revealed that there is high political pressure/ influence while recruiting 4th class employees to VC or Pro-VC especially faculties in the entry level. Education Minister Mr. Nurul Islam Nahid (The Daily Star 2013) in a seminar organized by Dhaka University Journalists' Association (DUJA) mentioned that the position of Dhaka University in the list of global top universities has dropped. Hasan (Prothom Alo, 16.01.2012) disclosed that students and guardians' are financially victimized due to session jam and at the same time a big amount of social and state assets are misused. Gohor Rizvi (Prothom Alo, 24.01.2012) urged that allocation for higher education needs to be consider as an investment instead of expenditure. Iqbal (2011) in Prothom Alo mentioned that the public universities in Bangladesh are not promoting research due to shortage of fund. The number of PhD fellows has

not been increasing in Bangladesh as compared to neighboring country India, because India gives handsome amount of fellowship (Rs.12,000 per month per researcher) to the researchers. He proposed to the Government of Bangladesh should launch fellowship of at least Taka 15,000 per month per PhD researcher. It should be mentioned here that Bangladesh has been offering a limited number of fellowships and the amount of monthly fellowship is only Taka 1,500 (or 0.10 times) per month for an M. Phil researcher and Taka 2,000 (or 0.13 times) per month for a PhD researcher. In recent years the UGC has increased the amount of fellowship to Taka 4,000 (or 0.27 times) and Taka 5,000 (or 0.33 times) per month for M. Phil and PhD program respectably. But due to unavailability of fund most of the public universities give limited number of fellowships according to the previous rate. Prothom Alo (03.04.2013) stated that there was a huge gathering in Dhaka University library due to insufficient seat capacity, but the authority could not expand the seat capacity of the library due to unavailability of fund.

Number of higher educated people is increasing day by day, but a large number of graduates have miserably failed to prove them as skilled human recourses since they are not engaged in any job or doing job other than their field of education. On the other hand technical graduates are frequently employed in the non-technical jobs. As a result, real benefit from higher education is very minimal. Existing higher educational institutions have a very weak relationship with the job market in Bangladesh. Several disciplines have been opened in different public Universities without any relevance to the

job market. If an agricultural graduate, doctor or civil engineer gets job in general service then the expenditure against him/her may be termed as unproductive utilization. On the other hand, when a graduate is unemployed or underemployed, the amount of government spending against that person is unproductive utilization. Session jam is also a major problem of higher education in Bangladesh. It has been increasing steadily due to political unrest, student and teacher politics as well as poor academic culture. Consequently, government has to bear an extra burden of expenditure for the period of session jam. Similarly, students and guardians have to suffer due to waste of money and time. Over recruitment of faculties and staff (more than approved posts and advertised posts) in public universities than the approved posts creates budget deficit because budget is prepared considering the approved posts. It is evident from literature that budget is a limiting factor of higher education in Bangladesh. Due to limited budgetary support, our higher education cannot provide complacent environment and necessary facilities. Above situation indicates that our higher education is more or less unplanned and aimless. With or without ensuring facilities for quality higher education new educational institutions are getting affiliation in both public and private sectors. But where these higher educated people will be absorbed is not planned. As a result the number of higher educated unemployed and underemployed people has been increasing gradually. Considering the above facts, it is urgently needed to address the real problems of higher education in light of budgetary provision and its utilization. It is also needed to recognize

how Bangladesh can reap maximum benefits from her human resources through productive utilization of physical resources.

1.3 Definition of Key Terms

1.3.1 Budget

A budget is defined in general terms as a statement of estimated income and expenditure of a country, organization, or individual over a given future period. In simplest terms, a budget is a financial plan that looks forward the financial implications of carrying out a particular planned response to the anticipated operating conditions in a future period, normally a year (Mikesell, 2009). Budget is a financial or quantitative statement, prepared prior to a specified accounting period, containing the plans and policies to be pursued during that period (Oxford Dictionary of Accounting, 2007).

1.3.2 Allocation of Budget

The amount of money assigned for spending in specific sector and or head for a future period of time prior to the beginning of the period especially one year. This is the amount of money assigned for expenditure in the next fiscal year before the beginning of the period.

1.3.3 Implementation of Budget

Implementation of budget means the achievement of target or budget. It is related to the provision of budget which was allocated at the beginning of the fiscal year. It shows how much of the budget is spent during the budget period.

1.3.4 Utilization of Budget

Utilization of budget means use of budget for higher education considering productive and unproductive means. Utilization of budget is clearly explained in the conceptual framework of the study.

1.3.5 Education

Education in the wider sense is any act or experience that has a formative effect on the mind, character, or physical ability of an individual. In its technical sense, education is the process by which society deliberately transmits its accumulated knowledge, skills, and values from one generation to another.

1.3.6 Higher Education

By the term higher education in Bangladesh, we normally mean education at the tertiary level beyond the higher secondary level (Islam, 2012, p.57). In Bangladesh higher education refers to university and tertiary level college education, comprising undergraduate and postgraduate programs in a wide selection of disciplines including humanities, social science, commerce, business and the sciences; technical, medical, agriculture, and nursing education and teachers' training (UGC, 2006, p.4).

1.3.7 University

A University is a place where new knowledge is created and disseminated for the welfare and development of human beings (Aminuzzaman, 2011).

1.3.8 Public University

The term "public" indicates that the university's funding comes partly from state taxpayers. Public Universities are the Government's Universities. A public university is a university that is mostly funded by public means through a national or sub national government.

1.3.9 Human Resource Development (HRD)

Human resource development (HRD) is the process of augmenting knowledge, developing skills and capacities of the people in a society. HRD has the potential to develop work based knowledge, identify future workforce demands and formulate the organizational strategy that considers capacity for comprehending and dealing with the future socio-economic development (Khan, 2009, p. 2).

1.3.10 Gross Domestic Product (GDP)

GDP is the total market value of the final goods and services produced within a nation during a given year. The GDP is the most comprehensive measure of a nation's total output of goods and services. It is the sum of the money values of consumption (C), gross investment (I), government purchases of goods and services (G), and net exports (X) produced within a nation during a given year (Samuelson & Nordhaus, 2005, p. 424).

In symbols:

$$GDP=C+I+G+X$$

There are two ways to measure GDP. Nominal GDP is calculated in actual market prices. Real GDP is calculated in constant or invariant prices (Samuelson & Nordhaus, 2005, p. 408).

1.3.11 Gross National Product (GNP)

Gross National Product (GNP) is the total final output produced with inputs owned by the residents of a country during a year. GNP is the total output produced with labor and capital owned by a country's residents (Samuelson & Nordhaus, 2005, p. 34). It is a measure of the current output of economic activities in the country (Dewett, 2005, p. 442). GNP is calculated using the following formula:

GNP=GDP- Goods and services produced in the country by residents of other country+ Goods and services produced by the residents of the country in other country.

1.3.12 Net National Product (NNP)

The market value of all final goods and services after providing for depreciation is called net national product. It is also called national income (NI) at market price (Dewett, 2005, p. 442). NI represents the total incomes received by labor, capital and land. It is calculated by subtracting depreciation from GDP. National income equals total consumption of labor, rental income, net interest, income of proprietors, and corporate profits (Samuelson & Nordhaus, 2005, p. 436).

In symbols: NI=GDP-D

1.3.13 Unemployment

A person aged 15 years and over considered as unemployed if he/she did not work at all during the preceding week of the survey (even an hour in the reference week) and was actively looking for work or was available for work but did not work due to temporary illness or because there was no work available (BBS, 2011a, p.73).

1.3.14 Human Capital

The skills, general or specific, acquired by an individual in the course of training and work experience is human capital. Its include knowledge, competences, and the experience and expertise of staff (Oxford Dictionary of Accounting, 2007). That part of an organization's capital represented by the ability, experience and skill of its work-force (Chand, 2006, p.156).

1.3.15 Intellectual Capital

Intellectual capital is a complex concept that includes human knowledge, information systems, brand names, and reputation. One popular definition is given by the following equation:

Intellectual capital=Human capital+ Structural capital+ Relationship capital

Here human capital includes knowledge, competences, and the experience and expertise of staff, structural capital includes information systems and databases, and relationship (or customer) capital includes customer relationship, brands, and trademarks (Oxford Dictionary of Accounting, 2007).

1.3.16 Job Satisfaction

Job satisfaction is a pleasurable or positive emotional reaction to a person's job experiences (Milkovice & Boudreau, 1998, p.172). Job satisfaction is the attitude that workers have about their job. It results from their perception of the job. The extent to which a worker is content with the rewards he/ she gets of his/ her job, particularly in terms of intrinsic motivation (Chand, 2006, p.184).

1.3.17 Productivity

Productivity is a measure of the efficiency of a person, machine, factory, system, etc., in converting inputs into useful outputs. It is computed by dividing average output per period by the total costs incurred or resources (capital, energy, material, personnel) consumed in that period. Productivity is a critical determinant of cost efficiency (BusinessDictionary.com).

1.4 Objectives of the Study

The prime objective of the study is to evaluate higher education budget in Bangladesh and its utilization for human resource development. The specific objectives of the study are

1. to analyze and evaluate budget on education in Bangladesh considering local, regional and global benchmarks;
2. to analyze and evaluate budget for higher education in Bangladesh considering local, regional and global benchmarks;
3. to examine the utilization of higher education budget for human resource development (HRD) in Bangladesh; and

4. to find out the challenges of higher education budget for human resource development and the ways to overcome.

1.5 Research Questions

Based on the statement of the problem and review of related literature the following research questions have been delineated.

- What is the education budget scenario of Bangladesh in view of local, regional and global benchmarks?
- What is the higher education budget scenario of Bangladesh with regards to local, regional and global benchmarks?
- What are the financial and non-financial consequences of session jam in higher education in Bangladesh?
- What are the financial and non-financial consequences of unemployment of higher educated people in Bangladesh?
- What are the financial and non-financial impacts of job nature of higher educated people in Bangladesh?
- What are the challenges of human resource development in light of higher education budget and how to overcome those challenges?

1.6 Rationale of the Study

According to Robbins (1931), Economics is the science which studied human behavior as a relationship between ends and scarce means which have alternative uses (Cited in Ahuja, 2004, p. 9). This definition of

economics is based on three factors such as (1) unlimited wants, (2) scarce means, and (3) alternative uses of means. Human wants are unlimited, resources are limited and it is needed to decide how these limited resources have to be allocated among different uses. As a developing country we have unlimited wants but our resources are very limited. We should prepare appropriate plan to exploit maximum benefits from limited resources. Adequate budgetary provision is a must for any organization, but proper utilization of budget is also important to achieve the organizational goal. In Bangladesh, there is hardly any in-depth study on education budget, both on allocation and utilization. A few research articles based on secondary information have been written in this field by different researchers on piecemeal basis. As a top priority sector an in-depth study on budget for higher education in Bangladesh with special reference to public universities is urgently needed. It is also essential to examine whether the budget is properly utilized for human resource development in Bangladesh and how much of the budget has been spent for unproductive purposes.

Evidence from related literature reveals that most of our higher academic institutions have serious shortages of required facilities for quality higher education such as libraries, laboratories, equipments, infrastructure, research grant, financial support, research environment, etc. Most of the researches concentrated on budget constraints in our higher education and emphasis was given to increase of budget allocation for education, but not purposively on higher education. Some scholars raised question about research capability and/ or research interest of university teachers, involvement of teachers,

staff, and students in politics, faulty and political recruitments in universities from the bottom to the top level, etc. Some researches mentioned about session jam in universities, unemployment of higher education graduates, and shifting of technical graduates in non-technical jobs. Due to those factors a huge amount of expenditure, either by government and/ or by guardians is not utilized productively. The above characteristics are common issues of discussion and debate, but the real scenario has not yet been explored through an in depth study based on field data or perception study of the stakeholders.

In this context, the present study is important for several reasons. First, this study would contribute to the existing literature in the field of education research especially higher education budget and its utilization for human resource development. Second, the findings of the research would help the policy planners in formulating policies for human resource development through higher education and make sure that the budget for higher education is properly utilized to achieve the goal of higher education considering economic and social context of Bangladesh. The study would identify utilization of higher education budget for human resource development in light of productive and unproductive use of public money. The study would also find out the ways to proper utilization of higher education budget for HRD and the ways to reduce idle investment in higher education (if any).

1.7 Scope of the Study

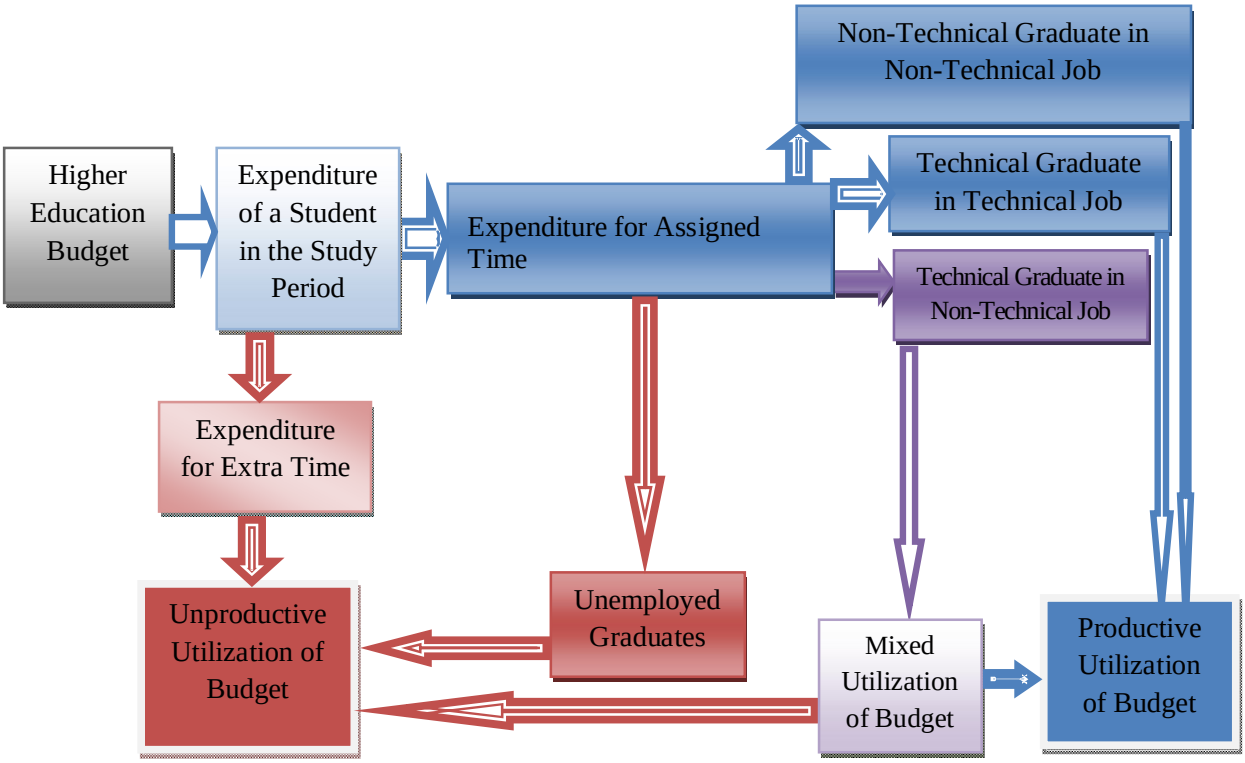
The study has covered education budget in Bangladesh, especially budget for higher education and its utilization for human resource development. More specifically the study has covered:

1. education budget in Bangladesh;
2. higher education budget in Bangladesh;
3. public university budget in Bangladesh; and
4. utilization of higher education budget for human resource development (HRD) in Bangladesh.

1.8 Conceptual Framework of the Study

Conceptual framework of the study has been designed in light of productive and unproductive utilization of higher education expenditure. In the framework, the researcher has tried to find out the amount of budget is utilized for HRD (productive utilization) and the amount is misused (unproductive utilization). In some cases budget is partly properly utilized and partly improperly utilized. The conceptual framework discloses the portion of higher education budget is utilized properly for HRD and the portion is utilized improperly. From the framework it is easily understandable how we can utilize our higher education budget to exploit maximum benefits from this investment.

Figure-1.1 Conceptual Framework Showing Utilization of Higher Education Budget for HRD



1.9 Structure of the Dissertation

The study is divided into three parts- Part A, Part B, and Part C. Part A presents the theoretical aspects of the study containing four chapters specifically, introduction, review of literature, research methodology, and an overview of higher education in Bangladesh. The first chapter mainly includes statement of the problem, objectives, research questions, rationale, scope, conceptual framework, and limitations of the study. The second chapter presents review of literature and research gap. The third chapter

presents nature of study, selection of study area, population, sampling, questionnaire development, basic characteristics of respondents, data collection, data processing and analysis, potential ethical considerations. The fourth chapter presents the education system in Bangladesh, higher education in Bangladesh, objectives of higher education, universities in Bangladesh, education financing and administration in Bangladesh, financing and HRD in education policies and plans, enrollment in higher education in Bangladesh, student input and output of public universities in Bangladesh. Part B presents the core chapters of the study and contains three chapters, which are- an appraisal of higher education budgeting in Bangladesh, utilization of higher education budget for HRD, and challenges of higher education budget and ways to overcome. The researcher tried to answer all the research questions in the main corps of the study. This analytical part discloses findings of the study in details based on results and discussion. Part C presents only one chapter namely summary of findings and recommendations of the study. This chapter also includes direction for future studies in this area.

1.10 Limitation of the Study

This study has covered higher education in Bangladesh especially public universities except National University and in some cases Bangladesh Open University, providing distance mode of education and secondary and higher secondary education. National University has been excluded from the study because it is an affiliating body, its activities are like an education board and

government grant has not been allocated to this University. Higher education in private universities has not been included in the study because government of Bangladesh does not allocate budget for those universities. Colleges have not been included in this study because their education system and budget allocation are not identical with public university education and budget. Mainly colleges are engaged only in teaching but universities conduct research in addition to teaching. On the other hand, university authority finalize university budget based on the needs of the institute. University budget is the combination of government grant and own income of the entity, but colleges are mainly depending on government grant. Higher education leads to human resource development (HRD) of any county through producing skilled manpower. Due to time constraint and limitation of fund from institutional sources the study has been limited to budget for higher education especially public universities and its utilization for HRD in Bangladesh. Other segments of education are not addressed in the present research. It is expected that the future researchers will address all those issues.

1.11 Conclusion

Education is one of basic rights of the citizens of a country and quality education promotes and accelerates economic development through transforming the population into human resource. Each and every country needs skilled and expert human resource in different fields for her balanced, speedy and sustainable economic growth. Development of expertise and

specialize knowledge is the contribution of higher education because this level of education introduces different fields of study such as medical, engineering, agricultural, business, science, social science, arts, law, education, etc. In this context, Bangladesh as a densely populated developing country need to emphasis on human resource development through higher education with minimum west of resources. The country has been suffering from acute shortage of public fund for education especially higher education though the development of education is in the top priority list of the government. Not only shortage of fund for higher education but also unproductive utilization of this scarce fund due to session jam, unemployment and employment nature has aggravated the problem to a great extent.

Chapter Two

REVIEW OF LITERATURE

REVIEW OF LITERATURE

This chapter presents review of related and relevant available literature at home and in abroad to find out the research gap, formulating research questions and to limit the scope of the present research. The outcome of the review of literature is summarized below keeping an eye on the above needs.

2.1 Review of Literature

Education plays an important role in the socio-economic development of a country (Shultz, Dennison & others cited in Hommadi, 1990). Education is the basic need for self-development, socio-economic transformation, and advancement of a country and it is also the prime ingredient of human resource development (Khatun, 2003). Education plays an important role in human capital accumulation which in turn affects the process of economic growth of a country. An increase in government education expenditure by 10 percentage points will lead to an increase in per capita GDP by 0.1 and 1.5 percentage points in the long and short run respectively. Investment in education has been found to be enhancing economic growth. So, all attempts should be made to increase public expenditure on education (Hossain & Khan, 2012). According to Shin (2012) Korean higher education and economic development mutually reinforce one another. He also mentioned that well trained human resources could accelerate the economic productivity, and consequently high economic productivity could generate resources to invest in higher education development. According to Tilak

(2003) higher education provides not just educated workers, but knowledge workers to the growth of the economy and transformation into knowledge societies. Mehmood, Khan, Raziq and Tahirkheli (2012) stated that quality of higher education is a key element for higher educational institutions and the quality benchmark is always fixed by the customers and not by the sellers or providers. Aminuzzaman (2011) mentioned that it is generally agreed by academicians, education researchers and other stakeholders that the quality of higher education in Bangladesh has declined steadily, in some areas quite alarmingly, over the last two decades and such fall in quality has indeed become a core concern of the government and other major stakeholders. Rahman (2010) explored commercialization of education and its social impacts in terms of cost-benefit approach. He mentioned that commercialization of education is a big challenge to quality education. It is creating negative impact on the socio-eco-politico-cultural environment. Profit maximizing motives of private investors in education has been minimizing the social objectives of the government. This commercial motive has forced the students to be immoral and destroying the human beauties of their minds. Thus business in education must be stopped through government intervention. He recommended that the job market must be functional on the basis of merit and quality of candidates, free from all sorts of corruption and mal practice. Employment, posting and promotion must be kept away from politicization and preferential treatment. Teaching profession must be made top most attractive through separate and attractive salary structure so that persons with high academic and research background

come to this profession. Teacher should be evaluated on the basis of quality, research and publications. Quality and quality be the only criterion. Rao (2006) mentioned that higher education contributes to national development through dissemination of specialized knowledge and skills. He also opined that education is universally recognized as an investment in human resources. In developing societies, higher education is considered to be a speed vehicle for upward social mobility, especially for the socially and economically deprived sectors. Chauhan (2008) mentioned that SAARC countries share certain common social and economic problems, including low literacy rates, poor infrastructure, and substandard quality of education, heavy dropout rates, and inadequate funding. Almost all SAARC countries have been financing their education systems out of public funds, but allocation of public funds for education is very low, between 2 to 4 percent of GNP as against UNESCO standard of 4 percent of GNP for developing nations. Mobasser and Muhammad (2010) stated that funding from the government for higher education and research is not at all adequate in Bangladesh and UGC have clearly failed to provide funds according to the needs of the respective university. They suggest that in the face of a changed scenario, quality improvement in the higher education has to be the main focus of attention. They also suggest that development of science and technology based education should get top priority of the government. Saad and Kalakech (2009) investigated the growth effects of government expenditure in Lebanon using multivariate co-integration analysis. They found that government spending on education had positive effect on growth

in long-run and negative effect in short-run, defense had a negative effect on economic growth in long-run and insignificant impact in short-run, health spending was negatively correlated to growth in long-run and there was insignificant linkage in short-run, and spending on agriculture was found to be insignificant in both the cases in Lebanon. The main finding is that education is the key sector to which public expenditure should be directed in order to foster economic growth in the long-run. Heckman (2005) found that Chinese policies favor physical capital investment over schooling, and urban human capital investment over rural human capital investment. He mentioned that an investment strategy that emphasizes physical capital over human capital fails to capture the benefits that arise from a more balanced investment strategy. Human capital has a high rate of return. Its formation would be promoted by freeing up labor markets, eliminating regional disparities in wages and access to education, and by opening human capital markets to finance the formation of human capital. Human capital would also be promoted by expanding the government budget on education and by equalizing expenditure across regions and improving mobility.

Chauhan (2008) stated that public higher education in Bangladesh is nearly free, public expenditure on education was only 2.4 percent of GNP lays a lower contribution among the SAARC countries. UGC has miserably failed to play its role as a guardian of public universities and as a promoter of quality. He suggested that the government of Bangladesh should devote more funds to education in order to defeat high degree of underdevelopment. Islam (2012a) focused on inequality in higher education of Bangladesh. Its

inequality problem underscores the absence of necessary policies responding higher demographic pressures on education and resource constraints to expand it. Consequently, governmental policies translate the danger of low cost education into low quality education mostly for non-urban and poor households. Moreover, almost free higher education in public universities poses the problem of vertical and horizontal equity. Additionally, private universities with their higher cost and guarantee for highly paid job make it exclusive to the wealthier segment of the society. Ahmed (2011) reported that instability in aid flows has not led to higher instability in government's own spending on education in Bangladesh. He showed that public spending on education, with or without foreign aid, has increased primary school enrollment. There are different reasons for dissatisfaction and low use of technology by university faculties in Bangladesh, and one reason is poor salary of teachers (John, 2011).

Saxena, Kulsrestha, and Khan (2010) mentioned that the world have been transforming at a pace faster than anyone could imagine and the credit for this transformation goes to education and education alone. They branded some factors/ facilities are essential for a university/ institute such as academic environment, library and reference facilities, infrastructure facility, latest research laboratory facility, and availability of funds etc. for higher education and research. They opined that development index of a country largely depends upon the researches carried out in a country. Rizvi (2009) stated that our universities are viewed mostly as teaching institutions with no prospect or incentives for research. Shetty, Hiremath, Murugan, and Sreeja

(2010) investigated research and higher education scenario in ten selected state universities of India. They recommended that there is a need for high level of funding for research, including contractual research. The shifting from traditional incremental budgeting to a performance based one is now necessary to arrest the erosion in quality and the resource crunch. Bhatia and Dash (2010) analyzed higher education system of India comparing with six other countries (UK, China, USA, Australia, Brazil and South Africa) using secondary sources of data. They realized that India became the country having lowest public expenditure on education and per student expenditure in higher education. India has become the lowest in HDI and Gross Enrollment Ratio (GER) in tertiary education among all the countries. They recommended that Indian government can improve GER by increasing public expenditure on education. Livanos (2010) observed that graduates of polytechnics and computer science disciplines have high levels of private sector employment in the Greek labor market than graduates of social and humanities disciplines. The study results also mentioned that individuals with post-graduate qualifications (PhD, Masters) have higher probabilities of looking for a job longer than graduation only. The findings of this study stress the need for drastic reforms of the higher education system. Núñez and Livanos (2010) examined the impact of an academic degree and field of study on short and long-term unemployment across Europe. Labor Force Survey (LFS) data from 15 member states over half a million individuals are utilized for the purpose. The result indicates that an academic degree is more effective on reducing the likelihood of short-term than long-term

unemployment. They also found that higher education increases the chances of employment. Cosser (2010) investigated the relationship between grade 12 learners' preferences for study in higher education, student enrolment in higher education program, and student graduations in different program areas, considering the match between these supply-side indicators and a forecast of skills demand in South Africa to ascertaining the extent to which the higher education system is meeting the demand for skills in the labor market. He has come to some tentative conclusions about the efficiency of the education and training system and its relationship with the labor market. The first is that graduations are a far remove from both learner preferences at school and student enrolments in higher education, second the supply profile is out of step with the demand profile, and the third is that this tension is not problematic for any reason other than that too few learners enter the teaching profession and stay there and too few managers are produced both within and outside of the context of the workplace.

Iqbal (2011) mentioned that the public universities in Bangladesh are not promoting research works due to shortage of fund. But Mehmood, Khan, Raziq, and Tahirkheli (2012) stated that research could increase the level of quality in higher education. They mentioned that in the current scenario, higher education is responsible for many tasks, research in higher education is bringing new changes which are facilitating human beings as well as creating new challenges to man. Fatima and Naqvi (2012) explored the impact of education system on effective human resource development in major universities of Pakistan using primary date collected from the faculties.

They mentioned that the universities play a key role in economic and social development of any nation. They focused on the need for a change of traditional mind of spending on education is waste of capital into build up human capital. They demonstrate that there was highly significant relationship between education system and human recourse development. They also mentioned that the poor education system may be one of the main causes of unemployment in Pakistan which also results in producing less efficient human resources. Husain, Qasim, and Sheikh (2003) discovered that the proportion of education budget in national budget remains close to 8 percent and around 2 percent of GDP over time in Pakistan. An extremely high proportion, more than 95 percent, of education budgets is spent on recurrent heads, particularly on salaries of teaching staff, with negligible proportions remaining for development expenditures. They also identified that there is a positive correlation between the district's literacy rates and the district's allocation of funds to education sector in Pakistan. They recommended that allocations to the education sector, especially for development expenditures, needs to be enhanced. Khan (2009) identified that the low investment is one of the major problems for human resources development in South Asia. He also mentioned that the investment in tertiary education and technical and vocational education and training (TVET) is very low and negligible in research and development (R&D) activities of the total education investment, tertiary education and R&D on an average receive around 5 percent in South Asia, while investment in TVET is less than 2 percent of the total education expenditure, compared to 43 percent in the Republic of Korea and 28 percent

in Japan. Tilak (2003) recognized that higher education systems in many developing as well as developed countries, including in Asia and the Pacific, are characterized with a continuing crisis, overcrowding, inadequate staffing, deteriorating standards and quality, poor physical facilities, insufficient equipment and declining public budgets. He also highlights that most of the countries receives less than one percent of GNP in higher education and it is less than 0.2 percent in quite a few developing countries such as Bangladesh, Myanmar, Lao and Tajikistan. Chaudhary, Iqbal and Gillani (2009) revealed that insufficient public funds have been creating bottlenecks in success of education programs in Pakistan. Government expenditure on higher education is very low in Pakistan (as for example, it was 0.3 percent of GDP, 1.6 percent of government budget, and 14.4 percent of total education spending in the fiscal year 2004/05). They suggested that for the purpose of increasing the number of educated people, the government need to give more emphasis on finance, build infrastructure and absorb unemployed highly educated people in the public and private sectors. Aftab and Ahson (2009) detect three main stakeholders such as state, educational institutions, and students in the realm of higher education (HE) financing in Pakistan. They tried to develop a framework for building a flexible model of financing the HE in Pakistan. The cost of HE are increasingly being shared with students and families by charging higher fee. The real challenge to educational finance is represented by meeting increasing costs against limited resources. The greatest hope lies in maintaining educational quality while reducing costs per graduate or increasing quality along with maintaining cost at present level. Shaikh (1998)

focused on 'Finance' for higher education in Pakistan. He observed that higher education was heavily government subsidized but since 1979, universities have received less than they have requested. The total expenditure on higher education has consistently fallen. On the other hand 85 percent of the university budget has been spend on salaries and allowances, while 10-15 percent is left for other utilities and virtually no funds are left for research, libraries, equipment, chemicals and glassware. The cost of hidden subsidies for transportation, gas, water, electricity, rent, telephones, office supplies and building maintenance etc., keeps on mounting. To get out of this financial fiasco and meet their deficits, some of the universities are now admitting students on 'self-financing' basis. Under this scheme, 15-25 percent of seats have been reserved for admission in demand oriented subjects, such as business and management sciences, computer science and engineering. He emphasized on urgent needs to reform higher education in Pakistan. The universities are neither geared to create new knowledge nor do their graduates study programs are up to international standards. The supply of government funds to the universities is limited though there is a great potential for generating funds by the universities but the universities are to explore the possibilities for resource developments. The research base in the universities is weak and unresponsive to users. Inadequately equipped libraries and laboratories and shortage of qualified teachers continue to hidden the progress of higher education towards excellence. Khatun (2003) mentioned that public universities in Bangladesh are working mostly by government funding and the major portion of the university budget, around 80 percent, is spent for salary

of teachers, staff and other physical infrastructure with remaining 20 percent being used for teaching purpose, which is quite inadequate for updating libraries, laboratories, and academic activities, class room instruction facilities, etc. This adversely affects the quality of education at the universities. Farzanegan (2011) investigated the effects of government spending on education and consequently on labor productivity in Iran. The study implies that there is no significant direct effect of education spending on labor productivity. The study also reveals that a large amount of money is spend in unproductive fields, designing less economically relevant courses and fields of study in basic and higher education. Sall (2003) pointed out the crucial problems of insufficient returns on investment made and of wastage are linked to the high level of class repeating and student dropouts at every level of the higher education system in Senegal. Increased wastage rates lead to a fall in attendance rates and thus to lower annual costs in absolute terms if the annual unit cost per student remains stable. Sarkar, Rana and Zitu (2013) addressed the challenges of quality higher education in public universities of Bangladesh considering teaching aids, library facilities, availability of books and journals, research facilities, and laboratory facilities as independent variables and quality of higher education as dependent variable. The study demonstrates that insufficiency of key elements is the main challenge of quality higher education in public universities of Bangladesh. Budgetary provision and utilization of the same are two major limiting factors to enhance those facilities.

Saleem, Dar, Shahid and Rana (n.d.) analyzed the role of human resource development (HRD) in economic development of Pakistan using multiple regression models. They mentioned that due to ignorance of the investment of the public sector, Pakistan stands poor in providing quality education. Based on the findings, they concluded that there is a clear-cut and obvious relationship existed between HRD and economic growth. They recommended for strengthening HRD in Pakistan such as adoption of planned strategies in education and health, increase budgetary allocation and stimulate more funding channels to education and health sector of the economy. Khan (2009) discussed the financing of HRD in South Asia. He identified that in most of the developing countries, high rate of unemployment, poverty, inequality and vulnerability are due to poor stock of human capital. The significance of HRD is reflected in the HDI. He concluded that the improvement in human capital is largely contingent on a high rate of investment in education and skills development by the South Asian countries. Oketch (2003) opted that sluggish economic growth generates high level of graduate unemployment. Furthermore, absence of career counseling at universities means students do not know what they want with any precision. Rena (2006) explained the education and human resource development in Eritrea. The author mentioned that the government is investing heavily on human resource development in the conviction that people is its best resource among all other resources. The HRD strategy pursued by the Eritrean government is in line with the human capital approach, the bottom line of which regards education as an investment that

will eventually lead to increase productivity to benefit individuals and ultimately society. Education plays the most vital role in developing intellectual and creative power of the people of Eritrea. Shamsuddoha, Quadir and Kabir (n.d.) unearth some problems of HRD through educational institutes in Bangladesh; those are lack of government initiative, infrastructure, useful arrangement, quality, coordination, investment, trained instructor, facilities, communication, and improper licensing. Cornachione (2010) identified that human capital theory is a crucial component of the core human resource development (HRD) process. Haldar and Mallik (n.d) explored that physical capital investment has neither long-run nor short-run effect but the human capital investment has significant long-run effect on per capita GNP. According to Heckman (2005) human capital has a high rate of return; human capital would also be promoted by expanding the government budget on education and by equalizing expenditure across regions and improving mobility. Johnes (1993) cited in Gjipali and Kristo (2011) the benefits from investment in human capital are conventionally assumed to be durable, as knowledge and skills, unlike most goods, may not depreciate in value over time as long as they are regularly exercised. Mamun (2008) analyzed equity effect of government subsidy among the students of poor and non-poor households in Bangladesh. He mentioned that government funding was 95 percent of total recurrent cost of public universities in 2006 and 100 percent for degree colleges. Based on different researches he mentioned that there are lot of criticism about public subsidy in higher education such as higher education subsidy create social and income

inequality, higher education financing with general taxation implies redistribution of resources from poor to rich through lifelong earning in the future, transfer of resources to the children of rich or to those who become rich as a result of education, etc. Per student government expenditure in government colleges is very low compared with per student expenditure in university, and per student cost in university is manifolds higher than those in primary education. He recommended that government subsidy should be reduced to 70 percent from 95 percent and that might make higher income students pay a higher proportion of the costs of their education and government may opt for the development of higher educational credit markets. Islam (2008) examined the trend of demand for contemporary higher education in Bangladesh as well as problems and issues of the same using historical-empirical method. The increase of enrolment in higher educational institutions shows that there is demand for higher education. But enrollment pattern reflects interdisciplinary imbalance in favor of liberal arts and social science than pure science, agricultural science and technical areas. Higher education is expensive in terms of public sector investment. Per student recurring cost in higher education is very high. Science and technological education costs more resource than education in general universities. The unemployment of huge products of education implies that it is not effective and relevant for their absorption in appropriate jobs. Higher education which consumes more money per student from public sector is an extra investment for HRD, if not relevant is a total waste. So the present pattern of higher education needs to be rectified through national planning,

manpower requirements and educational relevancy. Brain drain is another indicator of measuring efficiency of the education system. A large number of financially capable students are going abroad every year means that our education system does not have adequate facilities for higher studies and research. In this way we lose many of the potential best products who could have greatly contributed to the development of the economy and the society. The issues and problems related to access to schooling, quality of education versus quantitative expansion, confusion over priorities and functions, relation between educational activities and economic growth have to be resolved to make higher education efficient and relevant in the context of Bangladesh.

Alam, Khalifa, and Shahjamal (2009) found that higher education consumes a large portion of public and private fund to ensure economic development, but because of existing job pattern in Bangladesh and requirements placed in recruitment, contribution from higher education was not satisfactory. They identified that there was a gap between education system and employment pattern in Bangladesh. Due to the conditions of job advertisement and selection procedure right person is not placed in right position. Overall return from tertiary education is very low because of high unemployment and employment pattern. In some cases it demonstrated negative return due to the practice of huge corruption by tertiary graduates. Considering the needs of different fields they emphasized that a portion of students need to be prepared for higher education based on their merits and interests. They also recommended that saving budget from non-required higher education

should be invested on vocational education and training (VET) program. Shin (2012) mentioned higher education enrollment has both positive and negative sides because an oversupply of tertiary educated people is a cause of unemployment and may be an obstacle to further economic development. On the other hand, under-education is also detrimental to economic development especially in a knowledge-based economy from the economic point of view. Alam, Shahjamal and Roy (2009) examined the contribution made by education in Bangladesh using mainly primary data and some secondary data as a supplement. They found that higher education consumes a large portion of public and private funds to ensure economic development, but due to job pattern of Bangladesh and requirements placed for recruitment, contribution from higher education is lower where investment per student is reasonably higher. According to their analysis, 30 percent of science graduates are employed in their respective subject and other 70 percent are employed in various nonrelated fields. Around 60 percent of professional graduates are involved in respective professions and remaining 40 percent are in different non related fields. About 70 percent of medical graduates involved in their profession and 30 percent are involved in other non related fields. They examined how much of knowledge of the graduates were used in their profession. Medical graduates used maximum 40 percent of knowledge gained from higher education in their profession. Graduates from others fields used less than 40 percent of their higher education knowledge in their profession. Yano (1997) discussed the relationship between economic trends and graduate employment opportunities towards

equalization of earnings, the market increase due to female participation, changing patterns of movement towards and away from city locations and the diversification of industry into new fields. Detailed examination of the conversion from the educational to the employment system confirms the importance of cultural factors. He mentioned that up to the 1950's, finding employment was difficult, but the 1960's was a period of labor shortage. Thus the time was ripe enough for aggressive investment in higher education in order to expand the economy and after 1970 the university system changed completely to over education. The 1980's broadened employment opportunities however, in the 1990's the employment boom ended and it become obvious that was a recession and over employment. The balance between the supply and demand for college graduates appears to be susceptible to the overall economic trend. He also mentioned that the formation of human capital is not the result of school education only, but the result of cooperation between school and company. Lin and Hsu (2013) investigated the effects of educational mismatch on unemployment duration in Taiwan. They mentioned that higher education can upgrade personal social status and income; it might lead to the wasting of educational and human resources when highly educated graduates cannot immediately find an appropriate job. Empirical results show that with the worsening of the problem of over-educated, the duration of unemployment increased substantially. They also find out that the excessive supply of overeducated graduates might crowd out the employment opportunities of undereducated graduates, resulting in longer unemployment duration for both. Khatun

(2003) stated that the traditional function of higher education is to train future leaders of a society and develop high level manpower for professional, technical and administrative functions. From the findings of the study of Shin (2012) it is clear that the growth of Korean higher education is remarkable for its quality as well as quantity due to government policy initiatives to invest aggressively in research and development (R&D). If this manpower is not placed in the right positions, higher education functions will fail to give benefit to the society and economy. So it is urgently needed to develop human resources giving emphasis on both local and global perspectives as well as ensuring proper placement of those graduates. Rizvi (2009) proposed the alternative sources of funding for universities. He found that historically universities have been funded from public exchequer. But today higher education must compete for public resources with the competing claims of poverty alleviation, health care, and primary and secondary education. Not only have there a real crisis in the university system resulting from inadequate funding but there have also the problem of unequal access to quality higher education for those from the historically disadvantaged and economically depressed groups. The crisis of higher education has also been reinforcing the problem of brain drain. In an era where the ability of governments to raise taxes is limited and the tax base is declining around the world, the governments have often cut back on education to reduce budgetary deficits. To fund higher education in perpetuity the government may collect fund through imposing a graduate tax. However, all graduates do not enter into public service either through

the state sector or the nonprofit sector. The private sector receives skilled work force but has not contributed to the training or education of its employees. It would not be altogether unfair to ask the private sector to contribute towards the cost of education. A mandatory payroll tax equivalent to 0.5 percent of the salary may be imposed on all graduate employees.

2.2 Research Gap

After review of above literature it is found that some research works have been conducted in the field of higher education giving emphasize on quality of higher education, problems and challenges of higher education, economic development through human development, investment in physical and human capital, unemployment of educated people, impact of investment on education, return on education, impact of public subsidy in higher education, etc. Most of the studies mentioned that higher education in Bangladesh has been suffering from fund crises. But no in-depth study has yet been conducted on budget for higher education especially public universities and/or its utilization for human resource development in Bangladesh. The limiting factor may be insufficient budget or its proper utilization. It should to be detected through scientific procedure. Whether public university budget is utilized for human resource development or in unproductive means should also be identified through research based on filed level data. That is why the present study is an attempt to fill up this gap and the study would contribute to the existing stock of knowledge.

Chapter Three

RESEARCH METHODOLOGY

RESEARCH METHODOLOGY

This chapter presents the nature of study, selection of study area, population, sampling, questionnaire development, data collection, basic characteristics of respondents, data processing and analysis, potential ethical considerations, and conclusion.

3.1 Prelude

A sound methodology is essential for any research work to achieve the aim of the study. After completing review of literature, exploring research gap and formulating research questions, the researcher proceeded for a scientifically valid research methodology to answer the research questions and attain the research objectives. The study is an empirical research based on both quantitative and qualitative data. Necessary data was collected from both primary and secondary sources. Collected data was analyzed using different statistical techniques.

3.2 Nature of the Study

The nature of the research is a mixed methods approach[1] based on both quantitative and qualitative data. Most of the quantitative data was collected from different published sources such as published documents, reports, journal articles, relevant web sites, etc., as secondary sources of data. Most of the qualitative data was collected from the field through administer questionnaire to the respondents. Collected data was arranged and tabulated to prepare necessary statistical tables for critical analysis and draw conclusion. Thus the study is an empirical research.

3.3 Selection of the Study Area

Bangladesh is a densely populated country with limited natural resources, but there are ample opportunities to transform the population into human resources. Literature supports that low budgetary allocation on education and its mal distribution are the main impediments in the way to transform our population into skilled human resources. Some studies were conducted in the field of higher education, such as quality of higher education, higher

[1] A mixed methods approach is one in which the researcher tends to base knowledge claims on pragmatic grounds (e.g., consequence-oriented, problem-centered, and pluralistic). It employs strategies of inquiry that involve collecting data either simultaneously or sequentially to best understand research problem. The data collection also involves gathering both numeric information (e.g., on instruments) as well as text information (e.g., on interviews) so that the final database represents both quantitative and qualitative information (Creswell). Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration (Johnson, Onwuegbuzie & Turner, 2007, p.123).

education and economic development, returns on investment in higher education, higher education and unemployment, demand-supply of higher education graduates, etc. Most of the studies mentioned that inadequacy of fund for higher education in Bangladesh is a core limiting factor. As far as we know there is hardly any study on budget for higher education in Bangladesh and/ or utilization of education budget for human resource development. On the other hand existing literature supports that a certain number of technical graduates are opted for non-technical jobs. Unemployment and underemployment of higher education graduates and employment in the jobs inferior to their qualifications and expectations are common in Bangladesh. Above facts suggests that the budgetary expenditure for those graduates are not properly utilized. As such it is necessary to investigate whether budget and/ or its appropriate utilization are the limiting factors. In this context, higher education budget in absolute and relative terms with other variables, its implementation rate & utilization for productive and unproductive purposes keeping an eye on human resource development were in the scope of the present study.

3.4 Population

The population of the study was divided into two categories, specifically faculties of the public universities, and alumnae of the public universities who were in the jobs required non-technical[2] educational entry qualification.

[2] Open to apply from all disciplines of study. A candidate has graduation and post graduation degrees or only graduation from any discipline of any university is eligible to apply.

BCS general cadre, non-cadre government officers under PSC recruitment, and officers of Bangladesh bank and government owned commercial & specialized banks were selected as study population because these are the large segments of employment with equal opportunity to access from any discipline of higher education irrespective of technical or nontechnical skills. Alumnae employed in private organizations were excluded from the study population because nearly all private organizations advertise their vacancies mentioning specific discipline which is contradictory with the study purpose. Moreover, recruitment procedure and salary structure of private organizations are also different from government organizations.

3.5 Sampling

As stated earlier the population was divided into two strata on best judgment basis and from each stratum suitable number of respondents was selected purposively. A multi-stage sampling procedure was followed to draw the sample of the study. The sample size was limited to 620 respondents from two strata. The sample from each stratum is shown as follows-

Strata	Strata Group	Population	Sampling Techniques	Sample
Strata-1	Academician	9,962	Best judgment from each strata[3]	63
Strata-2	Alumnae	Graduates from public universities (Number unknown)	Data was collected from the alumnae at the time of their training in BPATC, RPATC (Rajshahi), different training institutes of Banks.[4]	557
			Total	**620**

3.6 Questionnaire Development

Preliminary semi-structured questionnaire was first developed in English for two categories of respondents. In the questionnaire for alumnae some questions were included to measure their level of positive or negative attitude towards some facts on a 1-5 point Likert type scale, where numeral

[3] Academicians include researchers and faculties of public universities. Total number of faculties in public universities were 9,962 (excluding part-time faculties) in 2011 (UGC, 2011, p.128). Faculties of four categories- general, agricultural; engineering and science & technology universities- were purposively selected. Finally faculties were selected randomly on the basis of availability and their willingness to provide information. About 140 faculties were selected as respondents and distribute questionnaire among them. Out of them 63 respondents return the questionnaire with their valuable opinions.

[4] Total 1050 questionnaires were distributed among the alumnae participated in different training programs. Out of them 839 respondents return the questionnaire with their valuable opinions. The researcher excluded 282 filled up questionnaire of the respondents who had graduation from National University, Bangladesh Open University, private universities and employed in technical job. Responses of 557 respondents were selected as valid response because all of the respondents were completed their higher education from public universities and employed in non-technical job.

1 meant for 'highly disagree' and numeral 5 for 'highly agree', 'disagree', 2, 'neither agree nor disagree', 3, and 'agree', 4 in between them. In the questionnaire there were also some questions for collecting some specific information, some questions were of multiple choices, one question was the best choice (s) of one or more from the alternative answers and the respondents had the liberty to give their own opinions. In the questionnaire for faculty, some questions were yes/no type and some were best choice (s) of one or more from the alternative answers. However, they had the liberty to give their own opinions if they did not agree with the provided options or they want to add something new.

Both the questionnaires were pre-tested to have appropriate wording, format, length and sequencing of the questions. Pre-test feedback was used to refine the questionnaire until it was ready for data collection. Then the questionnaire was translated into *Bengali* so that the respondents could understand the questions easily and the researcher could get appropriate answer from them.

3.7 Data Collection

The study was based on both secondary and primary sources of data. Secondary data for the study was collected from the annual reports of the University Grants Commission (UGC) of Bangladesh during the period 2000 to 2012, different publications of UGC, different publications of Bangladesh Bureau of Education Information and Statistics (BANBEIS) such as pocket book on education statistics, statistical profile on education in

Bangladesh, etc., different publications of Bangladesh Bureau of Statistics (BBS) such as labor force survey, and statistical pocket book, different publications by the GOB such as education commission reports, five years plans, annual reports of Public Service Commission (PSC) of Bangladesh, Bangladesh Bank publications, budget book of different public universities of 2012, UNESCO publications on education budget, human development reports published by UNDP, books and journal articles, print media, related web sites, etc.

However, primary data was collected from 557 alumnae of the public universities who were in the jobs required non-technical educational entry qualification and 63 faculties from four categories of universities. To collect primary data from alumnae, participants were selected from different training programs organized and managed by the training institute of Bangladesh Bank, *Sonali* Bank Ltd., *Janata* Bank Ltd., *Augrani* Bank Ltd., *Rupali* Bank Ltd., Bangladesh *Krishi* Bank, *Rajshahi Krishi Unnayan* Bank, Bangladesh Public Administration Training Centre, and Regional Public Administration Training Centre (RPATC) located in Dhaka and Rajshahi. The researcher randomly selected a good number of training batches considering the convenience of time and availability, and data was collected from all the participants of the selected batches with unofficial support from the executives of those training institutes. The trainees of the individual training program were selected by the training institute. After collection of data the researcher excluded the data of the respondents who had graduation from National University, Bangladesh Open University, and private universities.

3.8 Basic Characteristics of the Respondents

3.8.1 Alumnae

Base	Category	Frequency	Percentage
Categories of Universities	General	433	77.7
	Agricultural	60	10.8
	Engineering	14	2.5
	Science & Technology	50	9.0
	Total	**557**	**100**
Study Area	Arts	86	15.4
	Social Science	113	20.3
	Business	88	15.8
	Science	138	24.8
	Engineering	43	7.7
	Technology	4	.7
	Agriculture	76	13.6
	Law	7	1.3
	Education	2	.4
	Total	**557**	**100.0**
Cadre	Administration	58	10.4
	Police	21	3.8
	Custom	4	.7
	Tax	4	.7
	Foreign Affairs	6	1.1
	Audit	3	.5
	Banker	443	79.5
	Others	18	3.2
	Total	**557**	**100.0**

Status in Job	Class One		372	66.8
	Class Two		185	33.2
	Total		**557**	**100.0**
Employing Organization	*Janata* Bank Limited		75	13.5
	Sonali Bank Limited		48	8.6
	Rajshahi Krishi Unnion Bank		52	9.3
	Government of Bangladesh		114	20.5
	Rupali Bank Limited		32	5.7
	Bangladesh *Krishi* Bank		113	20.3
	Bangladesh Bank		77	13.8
	Agrani Bank Limited		46	8.3
	Total		**557**	**100.0**
Gender	Male		463	83.12
	Female		94	16.88
	Total		**557**	**100.0**
Educational Status	**Graduation**		**Masters**	
	Duration	Frequency	Duration	Frequency
	2	5	0[5]	44
	3	34	1	408
	4	509	1.5	28
	5	9	2	77
	Total	**557**		**557**

[5] The respondents had no master's degree.

3.8.2 Faculty

Base	Category	Frequency	Percentage
Gender	Male	56	88.9
	Female	7	11.1
	Total	**63**	**100**
Status in Job	Professor	23	36.5
	Associate Professor	19	30.2
	Assistant Professor	16	25.4
	Lecturer	5	7.9
	Total	**63**	**100**
Categories of Universities	General	32	50.7
	Agricultural	9	14.3
	Engineering	19	30.2
	Science & Technology	3	4.8
	Total	**63**	**100**
Educational Status	PhD	34	54.0
	M. Phil	3	4.8
	Masters	26	41.2
	Total	**63**	**100**

3.9 Data Processing and Analysis

Processing and analysis of collected data become an important task for a researcher to get appropriate result from the data. So, to achieve this goal, the collected data was processed to make more meaningful and analyzed the same by applying appropriate statistical tools and techniques. All possible efforts were made to produce valid description or analytical explanations of data collected from published, unpublished and primary sources.

3.9.1 Data Processing

Generally, the data processing activities cover several types of work. For the current study, the data processing activities consisted of editing, coding, data entry, checking consistency, summarizing, classifying, etc. It should be mentioned here that all monetary value was converted into current value of money. Current value was calculated based on consumer price index (CPI) of Bangladesh Bureau of Statistics (BBS). All the nominal value of Taka was converted into current value of 2012-13 (current year) based on Index value Base: 1995-96=100 (general). Index factor was calculated by:

$I_f = CPI_c / CPI_r$

Here, I_f indicates calculated index factor, CPI_c indicates CPI of current year, CPI_r indicates CPI of respective year.

It should be mentioned here that there was some monetary data before 1995-96. To convert those data into the current value of 2012-13, the researcher first converted the CPI factor into 1995-96 considering the base year 1973-

74. In the process of conversion CPI of every year was divided by the CPI of 1995-96.

The researcher used Winsorized mean[6] to calculate the average monthly expenses by students in their university life. In the calculation the researcher repaired 10 percent of extreme higher value under the method of Winsorized mean.

3.9.2 Filled Up Data Gap

There were some data gaps in the data from UNISCO institute for statistics. The researcher filled up the data gap using simple method (simple average of immediate previous and next year). In the case of Bangladesh, the data of GDP expenditure on education and higher education as well as share of government expenditure on education and for higher education was unavailable for the year of 2005. The researcher filled up the data gap of the year 2005 using the above stated simple method. In the case of other country, the researcher also followed simple method to fill up maximum 2-year sequential data gap. More than 2-year sequential data gap had not been filled up by the researcher for this study.

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[6] A method of averaging that initially replaces the smallest and largest values with the observations closest to them. After replacing the values, a simple arithmetic averaging formula is used to calculate the Winsorized mean. Winsorized mean is less sensitive to outliers because it replaces them with less influential values. This method of averaging is similar to the trimmed mean; however, instead of eliminating data, observations are altered, allowing for a degree of influence.

(Source: http://www.investopedia.com/terms/w/winsorized_mean.asp date: 22.04.2014)

3.9.3 Categories of Universities

In the study public universities of Bangladesh was categorized into 7 categories such as general, agricultural, engineering, science & technology, medical, professional, and open. Each categories of universities includes-

Categories of Universities	University (ies) in each Categories
General	1. University of Dhaka 2. University of Rajshahi 3. University of Chittagong 4. Jahangirnagar University 5. Islamic University 6. Khulna University 7. Jagannath University 8. Comilla University 9. Jatiya Kabi Kazi Nazrul Islam University 10. Begum Rokeya University 11. Barisal University
Agricultural	1. Bangladesh Agricultural University 2. Sher-e-Bangla Agricultural University 3.Bangabandhu Sheikh Mujibur Rahman Agricultural University 4. Shylhet Agricultural University 5. Chittagong Veterinary and Animal Sciences University

Engineering	1. Bangladesh University of Engineering and Technology 2. Chittagong University of Engineering and Technology 3. Rajshahi University of Engineering and Technology 4. Khulna University of Engineering and Technology 5. Dhaka University of Engineering and Technology 6. Bangladesh Textile University
Science and Technology	1. Shahjalal University of Science & Technology 2. Mawlana Bhashani Science & Technology University 3. Hajee Mohammad Danesh Science & Technology University 4. Noakhali Science & Technology University 5. Patuakhali Science and Technology University 6. Jessore Science & Technology University 7. Bangabandhu Sheikh Mujibur Rahaman Science & Technology University 8. Pabna University of Science and Technology
Medical	Bangabandhu Sheikh Mujib Medical University
Professional	Bangladesh University of Professionals
Open	Bangladesh Open University

* National University is an Affiliating University

3.9.4 Data Analysis

After the completion of data processing, the researcher turned his attention to analyze both quantitative and qualitative data. The data were analyzed by using Statistical Package for Social Science (SPSS) version 15 and Microsoft Excel. In course of descriptive analysis, frequency, mean, mode, standard deviation (SD), co-efficient of variation (CV), range, minima and maxima have been adopted. On the other hand, inferential statistics like ANOVA, sample mean t-test, and Chi-square test were adopted. Some diagrams and charts were also developed to have easy understanding of different issues.

3.10 Potential Ethical Considerations

The researcher followed ethical issues related to research such as avoiding bias, provision or deprivation of a treatment, using appropriate research methodology; correct reporting, and appropriate use of the information (Kumar, 2011, p.210-216).

3.11 Conclusion

It was an empirical study to explore whether budget allocation for higher education or its proper utilization is the main limiting factor for human resource development in Bangladesh. The study was based on both secondary and primary sources of data. Both qualitative and quantitative nature of data was included in the study. Secondary data was collected from different published and unpublished sources. In order to collect

primary data the population was dividing into two strata- one was alumnae of public universities employed in the non-technical jobs where the education entry qualification was open for the graduates of any discipline and the other was public university faculties to collect qualitative opinion considering best judgment which includes general, agricultural, engineering, and science & technology university. Data was collected from 620 respondents, of which 557 were alumnae of public universities and 63 were faculties of public universities. Collected data was edited, coded and tabulated in a systematic way. Descriptive statistics such as frequency, mean, mode, standard deviation (SD), co-efficient of variation (CV), range, minima and maxima and inferential statistics like ANOVA, sample mean t-test, and Chi-square test were adopted to analyze data.

Chapter Four

AN OVERVIEW OF HIGHER EDUCATION IN BANGLADESH

AN OVERVIEW OF HIGHER EDUCATION IN BANGLADESH

This chapter presents the education system in Bangladesh, higher education in Bangladesh, objectives of higher education, universities in Bangladesh, education financing and administration in Bangladesh, financing and HRD in education policies and plans, admission in higher education in Bangladesh, students input and output of public universities in Bangladesh, and conclusion.

4.1 Prelude

Present education system and/or higher education system of Bangladesh is the legacy of previous social, political and education systems. Thus the root of our higher education system goes back to the British colonialism. But after the separation of Indian subcontinent into Pakistan and India there was no major initiative to modernize the higher education of the then East-Pakistan. After independence in 1971, different initiatives have been taken to develop the education and higher education of the country, and the process is still going on.

4.2 Education System in Bangladesh

Indian subcontinent was divided into two independent countries in Mid-August 1947 – Pakistan and India. This part of Pakistan was named as East Pakistan. East Pakistan was renamed as Bangladesh in 1971 after

independence. As such Bangladesh inherited previous social, political and education system of British India and Pakistan. After independence different initiatives have been taken to reform the education system of the country.

There are 20 grades of education from preprimary to PhD level in Bangladesh. Primary education starts from the age 6+ years and the PhD degree level starts from the age 25+ years. It should be mentioned here that 3-year pre-primary education from the age 3+ years' to 5+ years' shown in this flow diagram of ministry of education, but National Education Policy 2010 recommended a one-year pre-primary schooling for 5+ years' children. Later, this will be extended for the kids up to 4+ years.

Education system of Bangladesh can be classified into different classes from different perspective such as levels of education, branches of education, and formalities of education, ownership of educational institutions, curriculum and mode of instruction. Based on the levels of education, there are four levels of education in Bangladesh. **First level**, primary education from class I to V at the age of 6 to 11 years. **Second level**, from class VI to X and includes 5 years of formal schooling, of which 3 years (class VI to VIII) period is referred to as junior secondary and 2 years (class IX to X) period is referred to as secondary. **Third level**, higher secondary education includes 2 years of formal schooling of classes XI and XII. **Fourth level**, higher education started after higher secondary or equivalent. Higher education includes 3 years pass, 4 years honors, 1 or 2 years masters, 2 years M. Phil, 3 years PhD, etc. But National Education Policy 2010 recommended 3 levels

of education such as primary education up to class VIII, secondary education from class IX to XII, and higher education after secondary education.

Based on the **branches of education** there are different branches of education in Bangladesh such as engineering education, medical education, nursing and health education, **s**cience education, information technology education, business studies, agricultural education, law studies, fine arts and crafts education, sports education, madrasah (Muslim religious) education, vocational and technical education, etc.

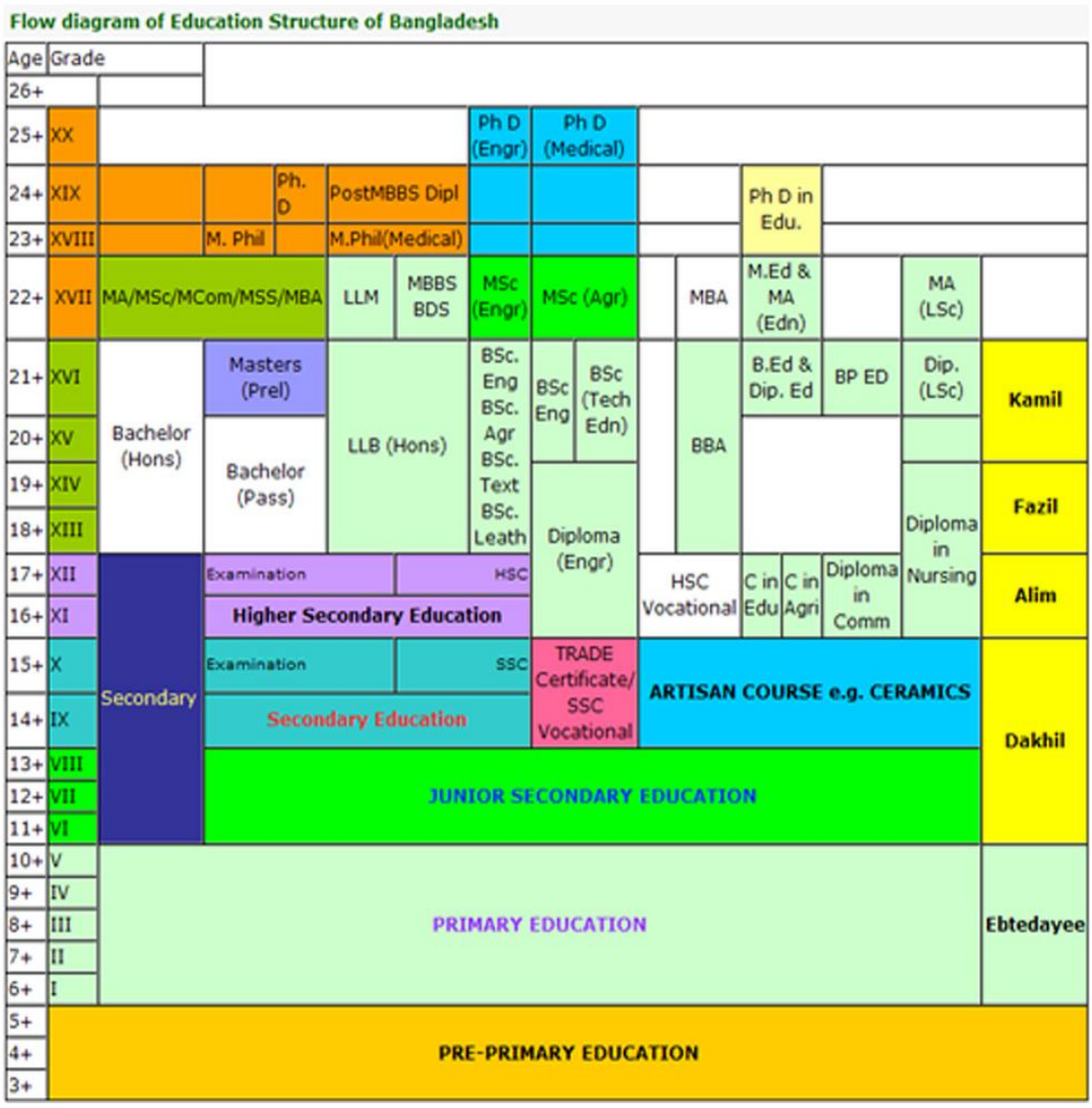
Based on the **ownership of educational institutions** there are two types of educational institutions such as public educational institutions and private educational institutions. Private institutions include non-governmental institutions and purely private institutions.

Based on **formalities** there are three types of education-formal, non-formal and information. **Formal education** has four elements of education such as students, teachers, curriculum, and educational institute. **Non-formal education** is education intentionally given outside the formal system. Other than formal education is **informal education**. In informal education all elements of education are not exists.

Based on **curriculum and mode of instruction** there are three types of education such as NCTB curriculum both in Bangla and English, 'O' level and 'A' level under British Curriculum, and different religious

education and higher educational institutions organized their own curriculum under other curriculum category.

Figure-4.1 Flow Diagram of Education Structure of Bangladesh



Source: http://www.moedu.gov.bd/images/stories/educational_structure_big.jpg

4.3 Higher Education in Bangladesh

Higher Education in Bangladesh would mean education pursue after the higher secondary level. As stated earlier higher education is a legacy of the British colonial education system in Bangladesh. As such it had no philosophical, sociological and theoretical perspectives to start with. Rather, the British colonial administration had introduced higher education in India including Bengal with a clearly spelled out limited objective of creating a group of people to serve the British administrative system, business and commerce. With the partition of the subcontinent and the creation of India and Pakistan the scenario and the state of higher education of both the countries happened to take a new shape in terms of fulfilling their national goals. But owing to military and civil bureaucratic obstructions, the main objectives of higher education during the Pakistan rule could not be materialized. After independence of Bangladesh a good number of commissions and committees have been formed for education reforms. Most of the commissions and committees suggested a lot of reforms in higher education. But the implementation of those recommendations were held back or delayed due to political change, political chaos, student unrest, lack of government interest in higher education, and especially for shortage of finance.

The education sector in Bangladesh has expanded significantly during the last two decades or more. In Bangladesh there was a time when higher education used to be considered a luxury in a society of mass illiteracy. It

is now considered as a means of faster economic growth. With the turn of time, higher educated people with required skills not only contributes towards economic development of a country, but also instrumental in bringing about technological revolution in the field of agriculture, industry, business and commerce, medicine, engineering, transport and communication, policy making, bureaucracy, diplomacy, foreign affairs, research, invention and discovery, civilization, culture, heritage, literature and world civilization and last but not least, in the creation of an articulate civil society (Islam, 2012, p.23).

4.4 Objectives of Higher Education

The aims and objectives of higher education in the National Education Policy 2010 begin with the sentence "The purpose of higher education is to generate and innovate knowledge, at the same time to build up a skilled manpower" (p.23). Almost all other education policies, plans and reports of education commissions and other concerned bodies also stated that the objective of higher education is to create skilled, efficient and knowledgeable manpower. The traditional function of higher education is to train up future leaders of society and develop high level manpower for professional, technical and administrative functions (Khatun, 2003, p.46). In fact higher education is not a luxury; it is mainly for human resource development and as such investment in the higher education should contribute towards socioeconomic development of a country. In reality, education is universally recognized as an investment in human resources

(Rao, 2006, p.19). In the developed world higher education is more planned and cost of higher education is borne by the beneficiary of the higher education directly or indirectly. A review of the university annual reports reveals that universities often have no clear vision, objectives or mission, governance, administration, or leadership (Aminuzzaman, 2011, p.11). Country's economic and social development (of a country) through higher education is the result of individual development of the people of a country. Expansion of higher education opportunity is a policy of Bangladesh government to meet the challenge of 21st Century (Mamun, 2008, p.23). But in Bangladesh the aims and objectives of higher education are seem to be somewhat ambiguous to the stakeholders such as education policy planners, academicians, students, job providers, or management of higher education institutions, etc.

4.5 Universities in Bangladesh

According to the recommendations of the Sadler Commission of 1917, a teaching-cum-residential university was set up in Dhaka in 1920 but academic activities opened on 1st July 1921. Dhaka University was the first and only University in East Bengal. Rajshahi University was started in 1953 as the second university in the region. After the independence of Bangladesh in 1971, until 1986 no new university was established. It should be mentioned here that there was 6 universities at the time of independence of Bangladesh. Considering the increasing demand of higher education the government of Bangladesh passed Private University Act, 1992 based on the

recommendation of the University Grants Commission of Bangladesh. There are now 114 universities in Bangladesh of which 34 are public, 2 are international (backed by OIC and Asian University for Women Support Foundation) and the rest 78 are in the private sector (The daily Prothom Alo, 05.11.2013, p.3) compared to only seven in mid 1980s. Out of 34 public universities, 32 universities are teaching university having their classroom, residential accommodation and other physical facilities in their own campus, and the remaining two are different in nature. Of which, one is the National University (NU), an affiliating university, affiliates all degree colleges provide general education, conducts examination and awards certificates or diplomas depending on the nature of academic programs, offers subject-wise special programs of training, and M. Phil and PhD programs for the teachers of affiliated colleges. The other one is Bangladesh Open University (BOU), which offers distance mode of education.

The students in 32 public universities were 197,278 excluding National University and Bangladesh Open University (UGC 2012, p. 128). In 2012, the students in these two universities were 1,268,450 and 208,659 respectively and were 162,929 in 1276 madrasah under Islamic University (UGC 2012, p.128). The students in the technical colleges under the control of others public universities were 53,227 (UGC 2012, p. 128). So, the total students in 34 public universities including their affiliated institutions were 1,890,543 in 2012 (UGC 2012, p.129). The students in 60 private universities were 314,640 in 2012 (UGC 2012, p.208). Very recently another 18 private universities got approval from the Government of the People's

Republic of Bangladesh and these universities are going to start their academic activities very soon.

The teacher-student ratio is not satisfactory in public universities in Bangladesh. Teacher-student ratio was 1:19 in 32 public universities in Bangladesh excluding NU and BOU in 2012. The teacher-student ratio in 32 universities varied between 1:3 and 1:54 in 2011. The lowest ratio was in Bangabandhu Sheikh Mujib Medical University (BSMMU) and highest in Jagannath University in 2012. The ratio was calculated including absent teachers in the numerator, who are on study leave and on leave for other reasons (UGC 2012, p.141). According to the Education Adornment Specialist Committee (2002) best teacher- student ratio is 1:15 which can be extended to 1:20/25 (p.56).

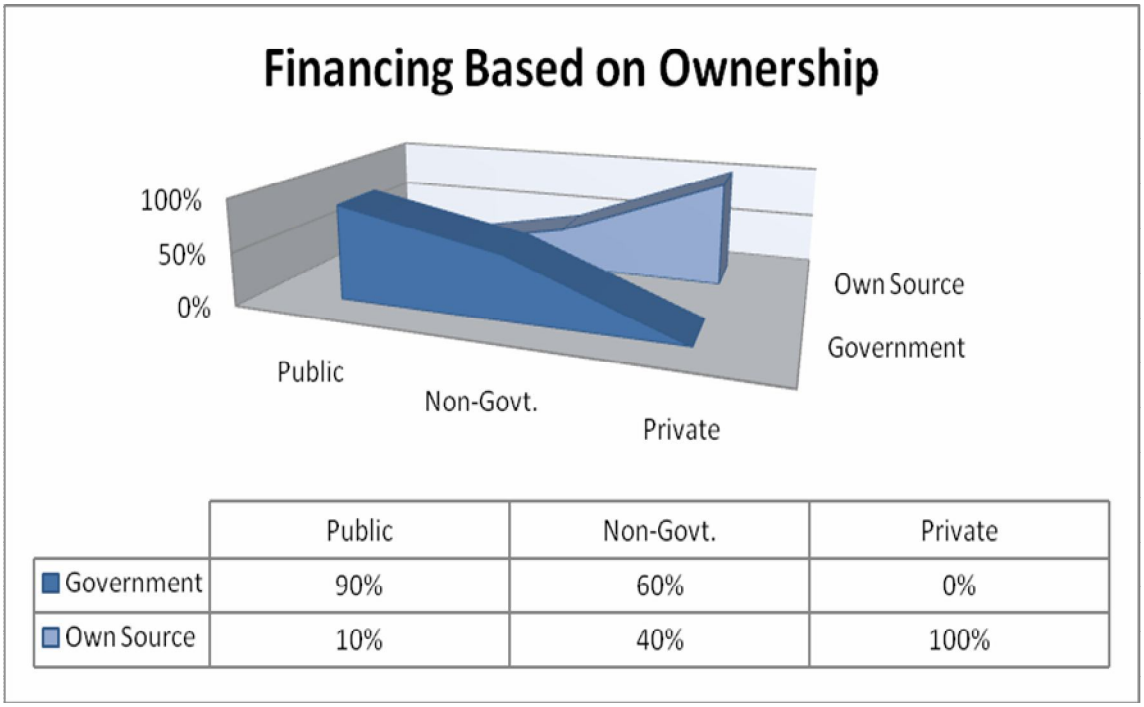
4.6 Education Financing and Administration in Bangladesh

4.6.1 Education Financing

Education financing system differs based on the ownership of educational institutions in Bangladesh. There are largely three types of educational institutions- public, non-government, and fully private institutions. Public higher academic institutions are mostly (about 90%) financed by the government and a small part (about 10%) are financed by self generated fund from tuition fees and others, purely private higher academic institutions are fully financed from their own revenue, and non-government (affiliated) educational institutions are partly financed (about 60%) by the government

and partly (about 40%) financed from their own revenue income such as tuition fees and others. Figure-4.2 shows the sources of finance based on the ownership of higher educational institutions.

Figure-4.2 Sources of Higher Education Finance

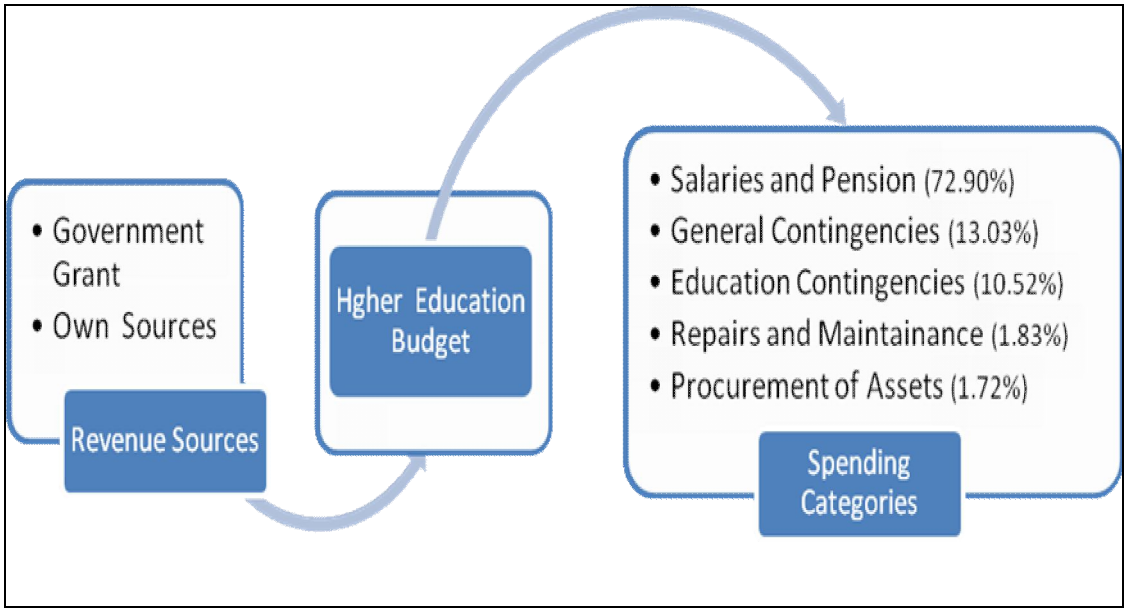


	Public	Non-Govt.	Private
Government	90%	60%	0%
Own Source	10%	40%	100%

Source: Self constructed based on above discussion

Figure-4.3 presents the revenue sources and spending categories of higher education budget of public universities in Bangladesh. Though the sources of funding are different, but the spending categories of private universities, public and private colleges, and others higher educational institutions are like public universities. However, ratio (%) of expending categories differs but heads of expenditure are almost same.

Figure-4.3 Sources and Spending Categories of Higher Education



Source: Self constructed based on UGC annual report 2011-2012 and above discussion

N.B. Spending percentage in different heads of expenses is based on financial year 2011-2012. Data after this period are not available.

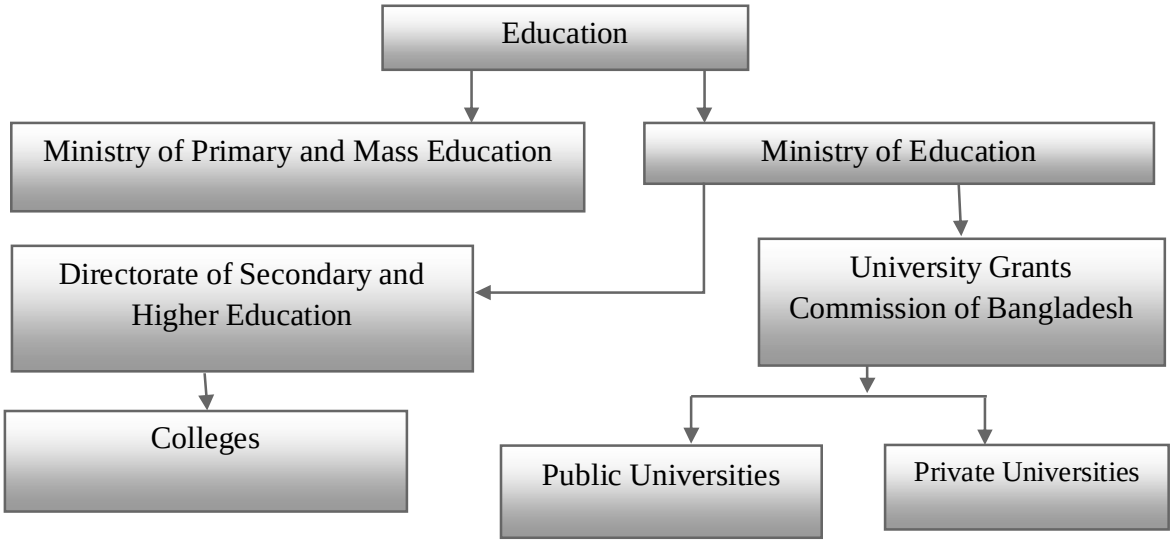
4.6.2 Education Administration

The overall educational administration and management of Bangladesh is under two ministries namely- Ministry of Primary & Mass Education (MOPME), and Ministry of Education (MOE). MOPME and MOE in association with the attached departments and directorates as well as a number of autonomous bodies control educational administration in Bangladesh (BANBEIS, 2007, 61).

The education system in Bangladesh is operationally categorized into two stages: one is primary education (Grade I-V) managed by the MOPME and the other is the post-primary education which covers all other levels from junior secondary to higher education under the administration of the MOE (BANBEIS Website). Ministry of Education is the apex body to manage higher education in Bangladesh in collaboration with University Grants Commission (UGC) and Directorate of Secondary and Higher Education (DSHE).

Public and private universities are offering higher education with prior approval from the UGC. It was established in 1973 through the presidential order number 10 with the objectives of finding out the needs of education at the university level, preparing specific plan for the development of higher education, appraising financial needs of universities, receiving fund from the government and allocating the same to the universities, promoting evaluation of development activities of universities and their academic departments, institutes, etc. Higher education is also offered in different colleges. The DSHE is financing the colleges, but this directorate along with National University jointly manages them. Some colleges offer only up to graduation level, some offers both graduation and post graduation courses; whereas some colleges offer only postgraduate courses (BANBEIS, 2007, 14).

Figure-4.4 Governance Structure of Education in Bangladesh



Source: Self constructed based on above discussion

4.7 Financing and HRD in Education Policies and Plans

A large number of education commissions and committees were formed after independence of Bangladesh in 1971. All the committees found some problems and made some recommendations. The researcher has thoroughly reviewed those reports in light of financing and HRD clauses. After review of reports of different education committees and commissions, the following points have been identified emphasizing financing and human resource development.

4.7.1 National Education Policy 2010

This is the latest education policy in Bangladesh. An 18 member Education Policy formulation committee was formed in April 2009 and headed by

National Professor Kabir Chowdhury. But unfortunately there was no recommendation for financing education or higher education. The education policy gave emphasis on HRD through higher education. The policy stresses on generating new knowledge and build up skilled manpower. At present the Government of the People's Republic of Bangladesh tries to implement the recommendations of this policy.

4.7.2 Strategic Plan for Higher Education in Bangladesh: 2006-2026

A strategic plan of higher education for 20 years from 2006 to 2026 published by the UGC of Bangladesh with the recommendation of experts group. It is a detailed plan of higher education in Bangladesh. It includes spending and financing of higher education as well as role of higher education to fulfill the vision for the future. The plan revealed that "universities produce human resources with skills and technical know-how that expedite economic and social development of a country" (p.11). One of five core values of the report is that "The aim of education is to enlighten the students with knowledge and skills, educate people with moral values, makes them responsible citizens with the ability to compete in the job market according to the level of their attainment" (p.12). In the strategic plan it is recommended that the "University should shift towards the system of zero-base budget[1], where they should justify every proposed expenditure" (p.28). For improving the quality of higher education, the government has to

[1] A zero-base budget is a cash-flow budget in which the manager responsible for its preparation is required to prepare and justify the budgeted expenditure from a a zero base, i.e. assuming that initially there is no commitment to spend on any activity (Oxford Dictionary of Accounting, 2007).

look at options for channeling more funds to the public universities in line with the GDP growth considering the factors for equitable distribution of resources: a. student population, b. disciplines offered, c. levels of qualifications, d. demands for research, e. level of technological support needed, f. logistic needs, g. student loans/ bursary, etc. (p.27).

4.7.3 Nation Education Commission 2003

In order to improve the quality of education and initiate a set of reforms to develop the sector, government undertook several actions of which the formation of Education Commission headed by Professor Mohammad Moniruzzaman Mia in January 2003 was one of the major initiatives. The Commission submitted its report to the Government in March 2004. The report consists of three parts and 880 recommendations on all the education sub-sectors. The commission emphasized on the following objective of higher education with other objectives "create necessary efficient manpower to meet the socio-economic demands of the country" (p.112). The objective was clearly emphasized on HRD. The report emphasized the need to increase fund for research, teachers training, library and enhancing laboratory facilities. But there was no specific recommendation on government expenditure on education and higher education as a percentage of GDP or government expenditure. There was also emphasis on increasing University's own income because of limited ability of government to allocate fund (p.156).

4.7.4 Report of the Implementation Cell of Nation Education Commission 2003

For implementing recommendations of National Education Commission 2003 there were two suggestions- to form implementation cell and permanent education commission. The implementation cell has stressed on language learning especially English language and to increase expenditure in research and teachers training through reducing waste. The cell has given some financial recommendations in absolute term of Taka dividing short, medium and long term instead of relative term with percentage of government expenditure or GDP.

4.7.5 Dr. M.A. Bari Commission-2002

An Expert Committee headed by Dr. M.A. Bari was formed in 2002 to identify immediate implementable reforms in the education sector. The Committee suggested several interventions in the sector which were considered later by the Education Commission 2003.

4.7.6 National Education Policy 2000

Dr Qudrat-e-Khuda Education Commission submitted their report in 1974. The recommendations of the commission had not been implemented properly due to political change and some unavoidable circumstances. It was felt that for meeting the national needs and for keeping pace with the unprecedented advancement in the field of knowledge in the contemporary world, original and qualitative change in our education system were needed.

In 1997 an education policy preparation committee was formed with 54 members headed by Professor M Shamsul Haque. The objective section of higher education of the policy recommended for expansion of knowledge and creates new knowledge and for making efficient manpower (p.14). The education policy also recommended that the government expenditure in education need to be increased to 4.5 percent of GDP in 2009-2010 as against 2.8 percent in 1997-98 (p.43-44).

4.7.7 Report of National Education Policy Preparation Committee 1997

National education policy preparation committee headed by Professor M Shamsul Haque submitted report to the government in 1997. The committee mentioned that the goal of higher education is to transmit knowledge & create new knowledge and to make efficient manpower (p.15). The committee mentioned that the existing higher education is not capable of meeting the total needs of Bangladesh and that is why reform in higher education is essential (p.86). The committee recommended 5 percent of national income should be allocated to education and the amount should be distributed among different levels of education according to the following norm- 60 percent for primary and adult education, 20 percent for secondary and vocational education, 5 percent for special education and teachers' training, and 15 percent for university education and research (p.174).

4.7.8 Bangladesh National Education Commission 1988

After the publication of the Dr Qudrat-e-Khuda education commission report, some of the recommendations were implemented, but majority were not addressed at all. In 1987 the Government form Bangladesh National Education Commission headed by Professor Mofiz Uddin Ahmed. In the terms of reference of the formation letter of the commission one of the mentionable terms was 'make efficient manpower' (p.375). In the light of the terms of reference the commission identified objectives, status and problems for higher education and also gave some recommendations. One of the major recommendations was to increase education expenditure gradually to 20 percent of total government expenditure in 2000 from existing 10 percent in 1986-87 (p.352-353). The commission quoted different examples of expenditure on education as a percentage of GDP in Bangladesh, Indian, Nepal, Sri Lanka, and developed countries as well as recommendations of Education Ministers' Conference held in Tokyo in 1962. But the commission did not offer any recommendation for education expenditure or higher education expenditure as percentage of GDP or government expenditure.

4.7.9 Interim Education Policy 1978, Working Paper for National Debate

Professor M. I. Chaudhary was the convener of the draft report preparation committee. Higher education and research section of the policy mentioned that the number of higher educated people must be well planned and symmetry with national assets to meet the work demand and social needs of

the country (p.25). The policy recommended that the allocation on education should be 7 percent of nation income (p.33).

4.7.10 Bangladesh Education Commission Report 1974

Bangladesh Education Commission was formed in 1972, headed by well-known educationist and scientist Dr Qudrat-e-Khuda. The commission submitted its report to the Government in May 1974. The report was formulated and is based on the socio-economic and political state and cultural heritage of the country. The perspective and scenario of the education system of the contemporary world were also taken into consideration. Among others one objective of higher education was to create highly skilled, knowledgeable and longsighted manpower for higher works (p.83). The report also mentioned that the work skill of people is the best national asset (p.83). The commission recommended that the expenditure on education should be increased to 5 percent of national income immediately and as possible as short period it should be increased to 7 percent (p.284). The commission recommended for distribution of 5 percent of national income to different levels of education, of which 60 percent for primary and adult education, 25 percent for vocational education, teachers training with higher secondary and for special education, and remaining 15 percent for college and university level education (p.285). The commission recommended for increasing tax revenue to 18 percent of national income as against existing 10 percent and the government expenditure on education to be increased to at least 25 percent from existing 7 percent (p.286). The

commission also recommended for establishing two committees: education sector financing committee and manpower committee (p.288-289).

4.8 Admission in Higher Education in Bangladesh

The uniform precondition for admission to a university course is twelve years of schooling with successful completion of the HSC or its equivalent. But the minimum requirement of result in the previous twelve years schooling is not equal in all programs and in all universities or colleges. Admission into the universities is based on the result of admission test and only the top few percent of the successful candidates enjoy the privilege to get admitted into the subject of their own choice (Khatun, 2003, p.48). Most of the students failed to take admission in their interest area. This is a great hindrance to amplify knowledge of meritorious students because most of the students are demoralized when they failed to enter in their own interested area of study. Admission test in different universities held in different date under separate units. Every university takes admission test in its own way and separately. Only for medical program admission test is taken centrally. To get chance in higher education other than medical a student usually competes in different universities and colleges under different units. It is time consuming with huge financial involvement and a big hassle for students as well as guardians. Higher education is merit basis. Both public and private universities should adopt policies to promote access of students from poor socio-economic families to higher education (Khatun, 2003, p.54**).**

4.9 Student Input and Output of Public Universities in Bangladesh

The seats in the 32 public universities, except NU and BOU, in first year honors including diploma and certificate course were 59,200 where as seats in NU were 629,475 and in BOU were 276,563 (UGC, 2012, p.126-127). It should be mentioned here that in BOU the specific seats is not predetermined that's why total number of admitted students is collectively considered as seats of BOU. Admission against seats in 32 public universities in 2012 were 58,818, and in NU were 548,331 (UGC, 2012, p.126-127). Time to time the seat capacity has been increasing considering demands and political pledge. In Bangladesh a little more than 4 percent of the 17-23 age cohorts receives higher education whereas 11.9 percent in India, 29.3 percent in Malaysia, and 37.3 percent in Thailand (UGC, 2006, p.6). Total students on study in 32 universities were 197,278 excluding NU were 1,268,450 and BOU were 208,659. So, total students on study in 34 universities excluding affiliated colleges were 1,674,387 (UGC 2012, p. 259). In 2012, approximately 128,481 students got bachelor with honors, 21,380 students got technical bachelor, and 92,747 students got bachelor pass degree. Moreover, 119,894 students got masters, 2,385 students got masters (technical) and 1,763 got M. Phil and PhD degree (UGC 2012, p.223). A large number of students failed to get degree from public universities in different levels. In 2012, the degree award rate in pass course was 68.56 percent, honors level was 86.57 percent, technical bachelor was 75.39 percent, masters was 94.53 percent, technical masters was 96.27 percent, M. Phil and PhD was 76.92 percent and diploma and certificate

course was 54.51 percent (UGC 2012, p.135-137). The expenditure against those unsuccessful students is unproductive utilization of money. If the unsuccessful students attend retake examination and get degrees then the total amount invested on their higher education is not unproductive, but retake examination needs extra expenditure of guardians as well as government.

4.10 Conclusion

The higher education in Bangladesh is the legacy of British colonial education system. There was no philosophical and social aspect to develop higher education in the then East-Bengal. This defective higher education system should be reformed now considering the national goal, socio-economic, cultural and political aspects as well as the hopes and aspirations of the people of this independent country. There are four levels of education in different fields of study in Bangladesh, which are primary, secondary, higher secondary and tertiary. Now these four levels are in the process of transforming into three levels of education namely primary, secondary, and tertiary. Education system of Bangladesh has been managed by two ministries namely Ministry of Education and Ministry of Primary and Mass Education with their attached departments and directorates as well as a number of autonomous bodies. It should be mentioned here that to develop the education system of Bangladesh, a good number of education policies, strategies, and plans have been prepared by different expert bodies. But in reality none of those policies, strategies and plans has been implemented

fully. Even in some cases commissions, committees and expert bodies have been formed due to political reason, political concern and political gain of the political government, not for development of education. Consequently, Bangladesh education especially higher education has not been reformed as expected. There are huge prospects of transforming unskilled population into human asset through higher education and training. After four decades of independence, Bangladesh needs to emphasize and put stress on higher education through appropriate short-term, mid-term and long- term planning. Basic education has developed significantly mainly due the involvement of private sector and NGOs, but still there is enormous scope of improvement. The reforms and development of higher education are lagged behind. There are a number of impediments in the way to development of higher education in Bangladesh such as lack of appropriate but sustainable plan, improper implementation of plan, poor financial planning and administration, ridiculous admission systems, poor and politically biased management of educational institutions, etc.

Chapter Five

AN APPRAISAL OF HIGHER EDUCATION BUDGET IN BANGLADESH

AN APPRAISAL OF HIGHER EDUCATION BUDGET IN BANGLADESH

This chapter presents the analysis of education budget in Bangladesh from different perspectives such as education budget to national budget, share of GDP on education, share of government expenditure on education. Higher education budget in Bangladesh has been analyzed considering share of GDP for higher education and share of government expenditure for higher education, relationship between higher education budget and higher education quality. Public university budget in Bangladesh has been analyzed in the perspective of per student yearly recurrent expenses in nominal value as well as current value of money based on categories of universities, government grant, university budget and expenses, distribution of education contingencies and survey opinion on allocation and implementation of budget. At the end there is a brief conclusion of the chapter.

5.1 Prelude

Education budget is a major part of national budget. Higher education budget is a small but very much crucial part of education budget in Bangladesh. In this chapter education budget in Bangladesh is discussed in three stages such as education budget in Bangladesh, higher education budget in Bangladesh, and budget of public university in Bangladesh. Data has been analyzed in absolute term (both in nominal value[1] and real value[2]) and relative term. Nominal value

[1] In economics, nominal value refers to an economic value expressed in fixed nominal money terms (that is, in units of a currency) in a given year or series of years.

[2] Real value adjusts nominal value to remove effects of general price level price changes over time.

of Taka has been converted into real value considering the consumer price index (CPI) of Bangladesh Bureau of Statistics (BBS).

5.2 Education Budget in Bangladesh

National budget comprises budget of all sectors, departments, divisions, and ministries of a country. It includes revenue budget as well as development budget. Education budget is an important segment of national budget comprises the budget of the ministry of education, and ministry of primary and mass education in Bangladesh. This section shows education budget as percentage of GDP and government expenditure. Education budget has also been analyzed in line with the recommendations of different education commissions of Bangladesh and recommendations of the UNESCO, practices of the South Asian countries, and standard set in human development reports of the UNDP.

5.2.1 Education Budget to National Budget

It is evident from table- A.1 (Appendix-A) that in absolute term the amount of national revenue budget and revenue budget on education in Bangladesh was increased gradually, but in relative term (Table-5.1) budget allocation on education as percentage of national revenue budget had a fluctuating but decreasing trend. The decrease was more pronounced during the second half of the study period. As against this, the number of educational institutions, teachers, and students were increased gradually. It is also evident from figure-5.1 that the trend of national revenue budget was increased very

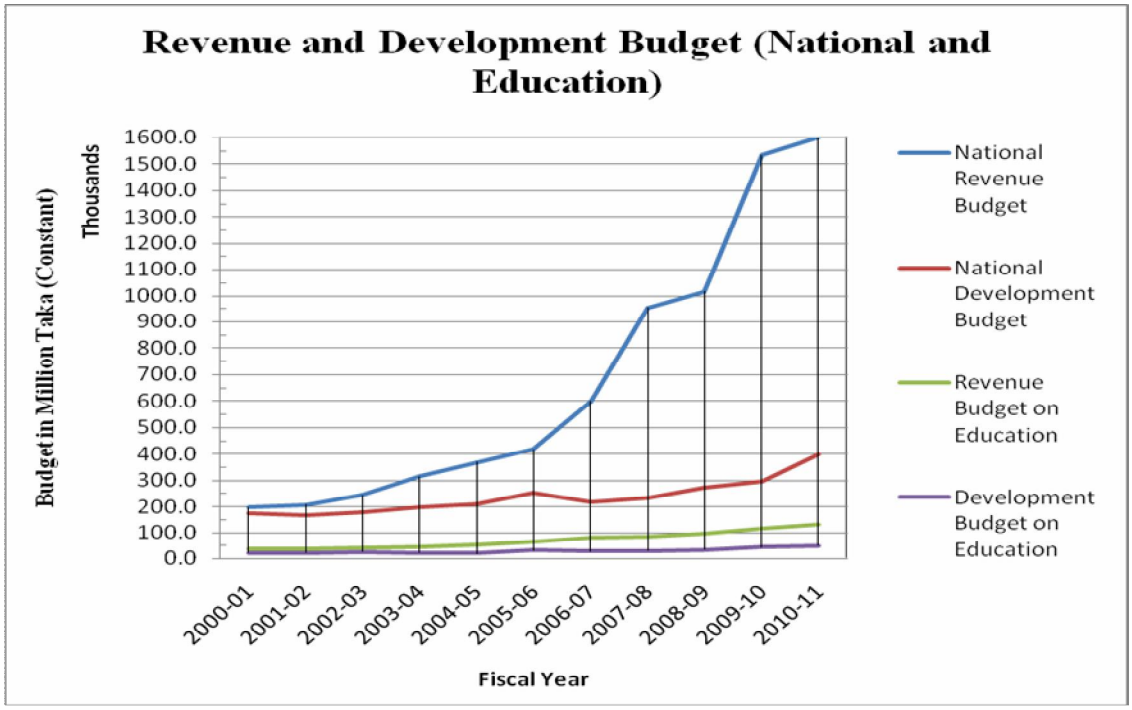
rapidly over the study period than the revenue budget on education and the upward trend was more pronounced in national revenue budget than in revenue budget on education.

Table-5.1 National Education Budget, University Budget and Expenses (Fig. in %)

Year	Edu. Budget to National Rev. Budget	Edu. Budget to National Dev. Budget	UGC Grants to Revised Budget	Actual Exp. to Revised Budget of Universities	Research to Actual Exp. of Universities	Salary & Pension to Exp. of Universities	Education Exp. to Exp. of Universities	General & Others Exp. to Exp. of Universities	Government Grant to UGC Recommendation	University Budget to Education Budget	University Budget to National Budget
2000-01	18.3	12.9	91.6	106.2	.096	71.5	12.6	15.9	92.64	8.05	0.83
2001-02	18.1	12.9	90.8	106.1	.086	71.7	12.0	16.2	90.43	7.85	0.83
2002-03	16.3	14.4	90.7	101.4	.084	70.4	13.1	16.5	93.51	8.17	0.81
2003-04	14.2	11.7	90.0	101.8	.104	68.6	12.1	19.2	90.95	8.71	0.84
2004-05	13.8	9.7	89.4	105.1	.136	65.5	14.4	20.1	97.00	8.63	0.86
2005-06	15.0	12.8	88.2	105.0	.141	69.7	12.5	17.8	96.09	7.88	0.89
2006-07	13.2	12.8	86.4	105.5	.180	71.9	10.9	17.2	94.35	6.98	0.92
2007-08	9.0	12.4	86.3	100.8	.204	70.4	12.9	16.8	96.53	7.55	0.75
2008-09	9.3	12.3	85.1	99.4	.434	71.5	11.4	17.1	98.18	7.35	0.79
2009-10	7.6	14.4	82.8	103.4	.355	70.8	11.7	17.5	93.11	7.44	0.78
2010-11	8.2	12.3	85.8	103.4	-	74.0	10.2	15.8	97.60	8.23	0.85
2011-12	-	-	84.7	102.7	-	72.9	10.5	16.6	97.1	6.48	0.73
Mean	13.0	12.6	87.7	103.4	.182	70.7	12.0	17.2	94.29	7.76	0.82
SD	3.9	1.3	2.8	2.2	.120	2.2	1.2	1.3	2.74	0.65	0.06
CV	30.0	10.3	3.2	2.1	65.9	3.1	10.0	7.6	2.91	8.38	7.32
Range	10.7	4.7	8.8	6.8	.350	8.5	4.2	4.3	7.75	2.23	0.19
Minima	7.6	9.7	82.8	99.4	.084	65.5	10.2	15.8	90.43	6.48	0.73
Maxima	18.3	14.4	91.6	106.2	.434	74.0	14.4	20.1	98.18	8.71	0.92

Source: BANBEIS (2011), Publication No. 404, p. 214-216 and University Grants Commission of Bangladesh, Annual Report 2001 to 2012.

Figure-5.1 Revenue and Development Budget (National and Education) in Constant Value of Million Taka



Source: Self constructed from the source table-A.1 in appendix-A

Table-5.1 also testimonies that national development budget[3] and development budget on education in Bangladesh had a fluctuating trend. While comparing with revenue budget on education, it is observed that there was low fluctuation in development budget on education than revenue budget on education. Figure-5.1 also reveals that the upward trend in both national development budget and development budget on education was very low over the period.

[3] National development budget of Bangladesh shows the amount the country is expecting to spend in the next financial year (July to June) for long run development.

5.2.2 GDP Expenditure on Education

It is evident from table-5.2 that in relative term public expenditure on education to GDP in Bangladesh had a fluctuating trend during the period of study. The mean percentage of GDP to public expenditure on education was 2.37, SD 0.10, CV 4.22, range 0.32, minima 2.23 and maxima 2.56. While comparing with the recommendations of different education commissions in Bangladesh (Table-A.2 in Appendix-A) it is evident that the allocation was remarkably low than the suggested norm of 4 to 5 percent of GDP/ NI. The allocation was also very low in Bangladesh as compared to UNESCO standard for developing country. Chaudhary, Iqbal and Gillani (2009) cited that the UNESCO standard of public expenditure on education for developing country was 4 percent of GDP. Bangladesh could not achieve this benchmark (4 to 5 percent of NI) set in the education ministers' conference held in Tokyo in 1962. According to Human Development Report (2013) published by UNDP, GDP expenditure on education in Bangladesh (2.37 percent) was even below the low human development index group (3.5 percent), South Asian regions (3.2 percent), least developed countries (3.7 percent) not to talk of world average (4.9 percent) during 2005-2010. The rate of GDP expenditure on education was higher in most of the South Asian countries than Bangladesh except Pakistan (2.29) and Sri Lanka (2.02). Data on Afghanistan was not available as such we could not compare Bangladesh with Afghanistan. Statistical analysis suggests that the variability was less in Bangladesh (lower SD and CV) compared to other South Asian countries.

Table-5.2 Share of GDP in Education (In percentage)

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Mean	SD	CV	Minima	Maxima	Range
Country																	
Bangladesh	2.38	2.46	2.32	2.38	2.25	2.36	2.46	2.56	2.39	2.23	2.28*	2.37	0.1	4.22	2.23	2.56	0.32
India	4.27	3.92	3.92	3.56	3.3	3.13	3.09	3.15	3.15	3.21	3.33	3.46	0.4	11.49	3.09	4.27	1.18
Pakistan	1.84	1.9	1.9	1.95	1.95	2.25	2.63	2.84	2.93	2.69	2.37	2.29	0.42	18.34	1.84	2.93	1.09
Maldives			6.27	5.9	5.32	5.88	5.61	5.35	5.37	7.81	-	5.93	0.83	14	5.32	7.81	2.5
Nepal	2.98	3.71	3.15	3.11	3.17	3.36	3.61	3.52	3.81	4.66	4.72	3.62	0.59	16.3	2.98	4.72	1.74
Iran	4.38	4.41	4.93	4.82	4.87	4.72	5.06	5.49	4.79	4.68	4.67	4.8	0.31	6.46	4.38	5.49	1.11
Sri Lanka										2.06	1.97	2.02					
Bhutan	5.51	5.72	-	-	-	7.08	-	-	4.8	4.63	4.02	4..39					

Source: UNESCO Institute for Statistics *BANBEIS, 2011, p.111

5.2.3 Government Expenditure on Education

It is evidence from table-5.3 that in relative term public expenditure on education as percentage of government expenditure in Bangladesh had a fluctuating trend from year to year during the period of review. The mean percentage of public expenditure on education with reference to government expenditure was 14.95, SD 0.71, CV 4.75, range 1.79, minima 13.99 and maxima 15.78. It was far below the recommended norms of different education commissions of Bangladesh (Table-A.2 in Appendix-A) which were in between 20 to 25 percent of government expenditure. However, allocation on education was more in Bangladesh than in India and Pakistan. The data of Afghanistan was not available. Statistical analysis discloses that the variation was less in Bangladesh (CV and SD were lower) compared to other South Asian countries. The above discussion was based on the data from UNESCO institute for statistics. But, there are some controversies between the data of BANBEIS and UNISCO institute for statistics. Based on BANBEIS data it is observed that the public expenditure on education as percentage of government expenditure had a gradual decreasing over the period of study as against a stable trend while using UNISCO data. There was also high variability during the period of study. The mean percentage of public expenditure on education to government expenditure was 13.01, SD 2.58, CV 19.83, range 7.11, minima 8.65 and maxima 15.76.

As stated earlier the share of expenditure on education had a gradual decreasing during the period of review and the same was remarkably low than the suggested norms of different education commissions in Bangladesh (Table-A.2 in Appendix-A). In 2010 the education expenditure was only 8.65 percent of government expenditure which was around three times lower than the recommendations of different education commissions.

Table-5.3 Government Expenditure on Education (In percentage)

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Mean	SD	CV	Minima	Maxima	Range
Country																	
Bangladesh	14.99	15.70	15.76	15.50	14.83	14.54	14.24	15.78	13.99	14.11		14.95	0.71	4.75	13.99	15.78	1.79
India	12.71	-	-	10.74	-	-	-	-	-	9.98	10.50						
Pakistan					6.42	10.94	12.18	11.24	11.15	11.15	9.93	10.43	1.89	18.12	6.42	12.18	5.76
Maldives						15.00	11.04	14.77	12.03	16.03							
Nepal	13.17	13.00	13.95	14.89	15.25	16.17	16.75	15.99	19.10	19.47	20.22	16.18	2.50	15.45	13.00	20.22	7.22
Iran	18.28	20.40	21.69	17.69	17.86	22.85	18.58	19.52	19.98	20.91	19.84	19.78	1.63	8.24	17.69	22.85	5.16
Sri Lanka										8.08	11.59						
Bhutan	13.79	12.86	-	-	-	17.17	-	-	-	11.04	9.37						

Source: UNESCO Institute for Statistics

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Mean	SD	CV	Minima	Maxima	Range
Bangladesh	14.99	15.76	15.76	15.50	13.22	12.31	14.18	13.11	9.65	9.96	8.65	13.01	2.58	19.83	8.65	15.76	7.11

Source: BANBEIS (2011), Bangladesh Education Statistics 2010, p.216.

5.3 Higher Education Budget in Bangladesh

In this section higher education budget is evaluated considering GDP expenditure and share of public expenditure in higher education. We have compared higher education budget of Bangladesh with education commissions' recommendations and South Asian countries practices. Data has been analyzed using descriptive statistics such as mean, standard deviation (SD), coefficient of variation (CV), range, minima, maxima.

5.3.1 GDP Expenditure for Higher Education

It is evident from table-5.4 that the percentage of GDP to higher education in Bangladesh had a fluctuating trend during the period of study. The mean percentage of GDP to higher education was 0.28, SD 0.03, CV 10.71, range 0.10, minima 0.22 and maxima 0.32. The allocation was far below (more than 2.5 times) the recommendations of education commissions' in Bangladesh (Table-A.2 in Appendix-A) which was 0.75 percent of GDP/ NI. The rate was higher in most of the South Asian countries than that of Bangladesh.

Table-5.4 Share of GDP in Higher Education (In percentage)

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Mean	SD	CV	Minima	Maxima	Range
Country																	
Bangladesh	0.24	0.25	0.26	0.22	0.26	0.29	0.32	0.29	0.32	0.30	0.30	0.28	0.03	10.71	0.22	0.32	0.10
India	0.87	0.79	0.79	0.71	0.66	0.61	0.63	0.90	0.90	1.17	1.20	0.84	0.2	23.81	0.61	1.2	0.59
Nepal	0.56	0.44	0.38	0.32	-	-	-	-	0.51	0.56	0.50						
Iran		0.85	0.91	0.82	0.76	0.73	1.04	1.12	0.99	1.03	1.00	0.93	0.13	13.98	0.73	1.12	0.39
Sri Lanka		0.36	-	-	-	-	-	-	-	0.37	0.32						
Bhutan	1.08	-	-	-	-	1.00	-	-	0.93	0.61	0.61						

Source: UNESCO Institute for Statistics

5.3.2 Government Expenditure for Higher Education

It is evidence from table-5.5 that the public expenditure in higher education to total public expenditure in Bangladesh had a fluctuating trend from year to year during the period of review. The mean percentage of public expenditure in higher education was 1.65, SD 0.26, CV 15.76, range 0.90, minima 1.00 and maxima 1.90. The allocation was far below than (more than 2.25 times) the recommendations of different education commissions in Bangladesh (Table-A.2 in Appendix-A) which was 3.75 percent of government expenditure. Sequential data of most of the South Asian countries was not available; instead some scattered data was available in the form of public expenditure in higher education. Data of Pakistan, Maldives and Afghanistan was totally absent in the source. From the available data it is clear that higher education expenditure of most of the South Asian countries was more than Bangladesh. It can be concluded that Bangladesh Government expenditure on higher education leading to human resources development was lower than most of the South Asian Countries and this may be the main reason for low HRD in Bangladesh.

Table-5.5 Share of Government Expenditure in Higher Education (In percentage)

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Mean	SD	CV	Minima	Maxima	Range
Country																	
Bangladesh	1.52	1.59	1.76	1.41	1.71	1.78	1.84	1.81	1.86	1.90	1.00	1.65	0.26	15.76	1.00	1.90	0.90
India	2.58	-	-	2.16	-	-	-	-	-	3.64	3.79						
Nepal	2.48	1.55	1.68	1.53	-	-	-	-	2.57	2.33	2.15						
Iran	-	3.95	4.00	3.02	2.80	3.51	3.83	3.98	4.13	4.61	4.24	3.81	0.55	14.44	2.80	4.61	1.81
Sri Lanka										1.47	1.90						
Bhutan	2.70	-	-	-	-	2.42	-	-	-	1.46	1.42						

Source: UNESCO Institute for Statistics

5.3.3 Relationship between Higher Education Budget and Higher Education Quality

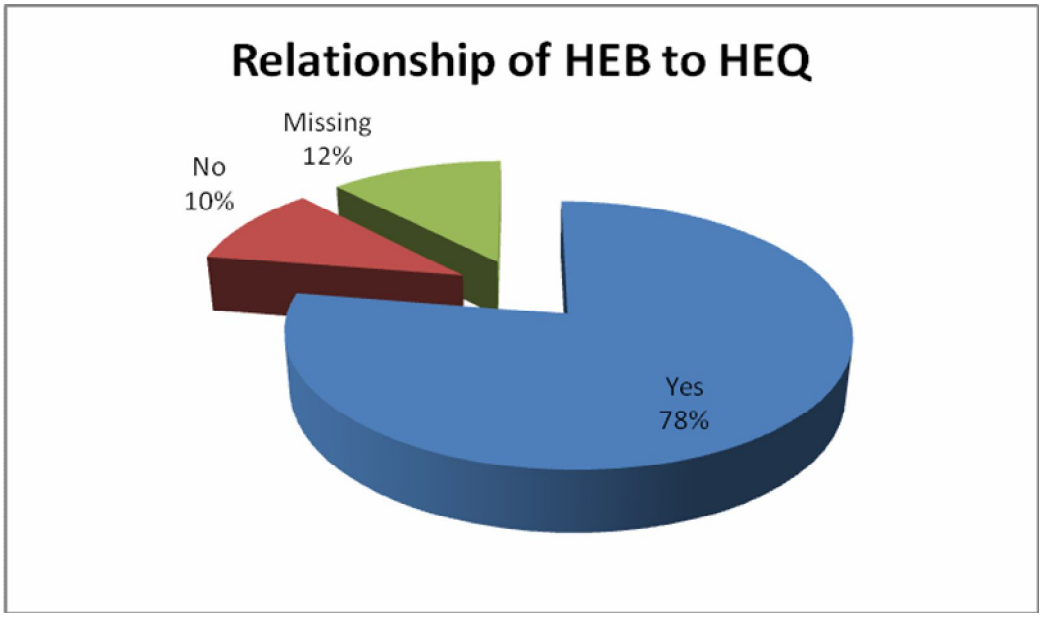
It is evident from table-5.6 that there is a positive relationship of higher education budget with higher education quality, mean score 3.27 and mode is 4, but the relationship is not strong. This relationship was branded from the analysis of alumnae data in Likert type 5 point scale. On the other hand the relationship was more strong (77.8 percent) based on faculties' opinion. Figure-5.2 visualized the positive relationship of higher education quality with higher education budget.

Table-5.6 Positive Relationship between Higher Education Budget and Higher Education Quality

Alumnae Opinion		**Faculties Opinion**		
Description	**Result**	**Description**	**Frequency**	**Percentage**
Mean Score	3.27/5.00	Yes	49	77.8
Mode	4.00	No	6	9.5
Valid Observation	577	Missing	8	12.7
		Total	63	100

Source: Analysis of primary data collected through questionnaire from alumnae and faculty

Figure-5.2 Positive Relationship between Higher Education Budget (HEB) and Higher Education Quality (HEQ)



Source: Self constructed from the primary data collected from faculty in table-5.6

5.4 Budget of Public University in Bangladesh

There are 34 public universities in Bangladesh of which 33 universities run with government fund and only National University run with its own fund. In the chapter public universities budget was analyzed from different perspective such as per student yearly recurrent expenditure based on category of universities, share of education budget, share of public universities budget in education budget and national budget, head wise universities budget, budget implementation rate, per student yearly expenditure in nominal value and real value, etc.

5.4.1 Per Student Yearly Recurrent Expenditure based on Categories of Universities

Table-5.7 reveals that per student recurrent expenditure in nominal value was lowest in Open University (mean Tk.1.9 thousand) and highest in medical university (mean Tk. 186.0 thousand, which is 98 times higher than the former). The second highest per student recurrent expenditure was in agricultural university, followed by professional university, engineering university, general university and science & technology university in that order. Per student yearly expenditure in medical university was around 5.15 times, in agricultural university was around 3.5 times and in professional university was 3.00 times higher than general, and science & technology universities. On the other hand the difference is somewhat lower in engineering university than medical, agricultural and professional universities. Per student yearly expenditure in engineering, and science & technology universities was fairly lower than medical and agricultural universities, but all those categories of universities are termed as technical university. In the case of professional university, per student yearly expenditure was too high though it is not a technical university. Statistical results testimony that per student yearly expenditure in general, agricultural, and engineering university had low fluctuation than other universities. This was due to low variability of the number of students in those universities during the study period. Contrarily, per student yearly expenditure in professional university was less consistent. It was due to high fluctuation of the total number of students from year to year against incremental allocation

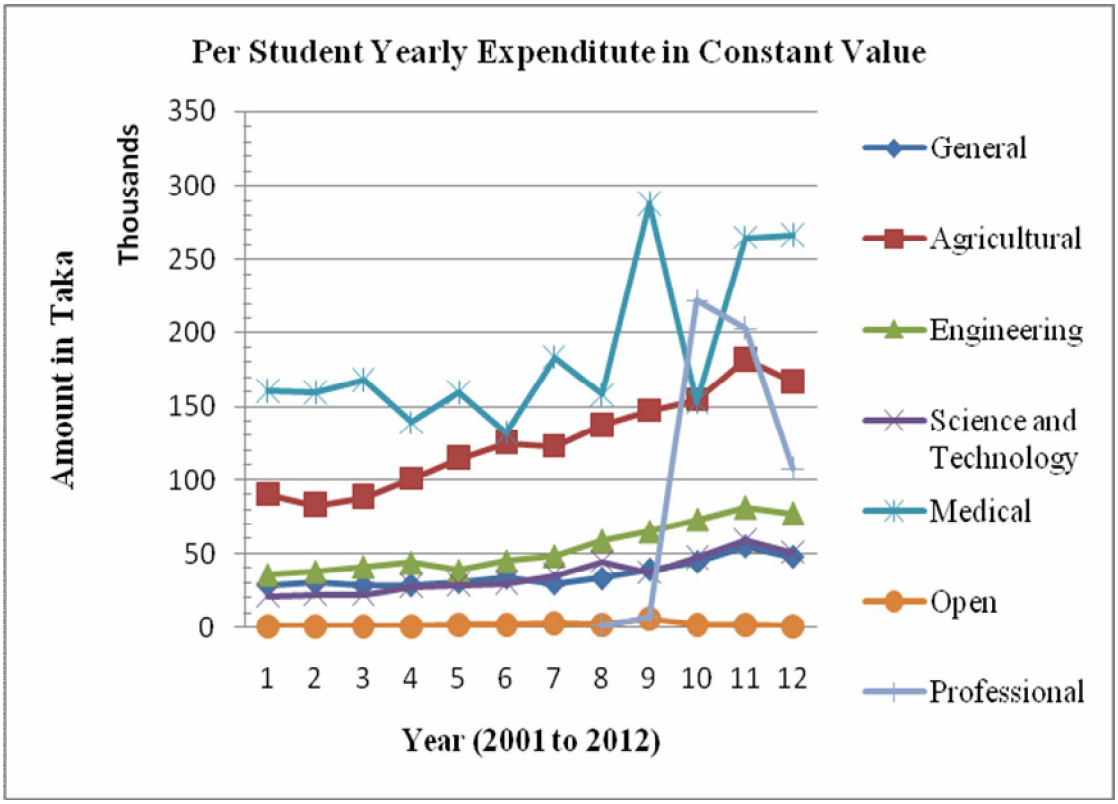
of budget. Statistical result in table-5.8 also suggests that there was high negative correlation (-0.89) between student-teacher ratio and per student yearly expenditure in current value of money based on categories of universities. The table also indicates that per student yearly expenditure was higher in the low student-teacher ratio in different categories of universities. High variability of per student yearly expenditure suggests low productivity of government expenditure. The scenario of Open University and medical University were similar to Professional university. Thus number of students should reach to the maximum capacity in all the universities for highest productive utilization of their budget.

Table-5.7 Per Student Yearly Recurrent Expenditure based on Categories of Universities (Figure in Constant Thousand Taka)

Year	Categories of Universities						
	General	Agricultural	Engineering	Science and Technology	Medical	Open	Professional
2001	29.0	90.0	36.0	21.5	161.0	1.0	
2002	30.4	83.0	38.1	22.5	159.9	1.0	
2003	28.7	88.8	41.5	23.0	168.2	1.0	
2004	29.0	100.7	44.1	27.9	139.2	1.0	
2005	31.0	115.1	38.7	29.1	159.9	1.9	
2006	34.1	125.8	45.2	30.0	132.2	1.9	
2007	30.2	123.3	48.7	35.6	183.4	3.1	
2008	33.5	137.8	59.3	44.4	158.2	1.4	1.4
2009	39.5	147.8	65.4	37.2	287.7	6.1	7.8
2010	44.7	155.2	73.5	47.2	153.7	2.2	221.8
2011	55.1	182.5	81.7	59.1	264.9	1.8	203.3
2012	48.1	167.6	77.7	50.9	266.6	0.5	107.8
Mean	36.1	126.5	54.1	35.7	186.2	1.9	108.4
SD	8.8	32.6	16.6	12.3	54.2	1.5	104.2
CV	24.4	25.8	30.7	34.4	29.1	78.9	96.1
Range	26.4	99.5	45.7	37.6	155.5	5.6	220.3
Minima	28.7	83.0	36.0	21.5	132.2	0.5	1.4
Maxima	55.1	182.5	81.7	59.1	287.7	6.1	221.8

Source: Self calculated based on the data of UGC Annual Report from 2001 to 2012

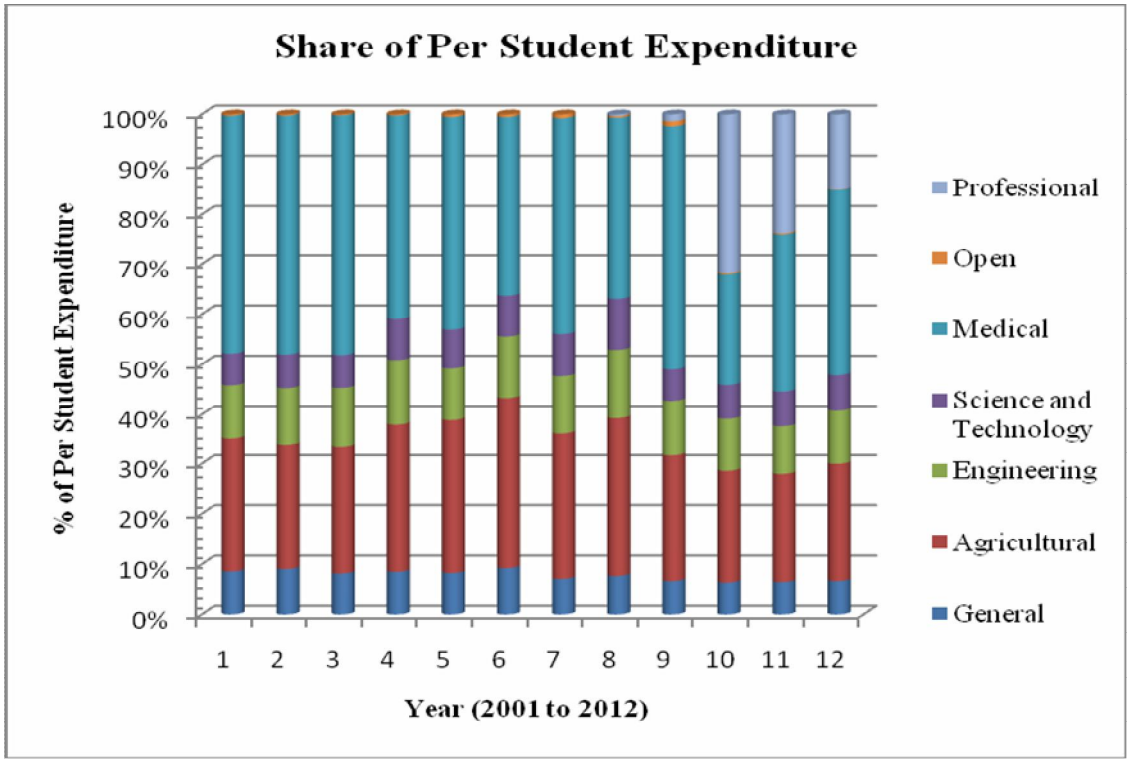
Figure-5.3 Per Student Yearly Expenditure in Different Categories of Universities (In Constant Value of Taka)



Source: Self constructed based on table-5.7

Figure-5.3 above shows the trend of per student yearly expenditure in different categories of universities in Bangladesh to make the situation easily understandable.

Figure-5.4 Share (%) of Per Student Yearly Expenditure based on Categories of Universities



Source: Self constructed based on table-5.7

It is evident from figure-5.4 that share of per student yearly expenditure based on categories of universities dominated by agricultural universities and medical universities where as open university consumes less than one percent of total expenditure from 2001 to 2009. After 2009 professional university includes with agricultural and medical universities as large share consuming universities in terms of per student yearly expenditure. Share of general, engineering and science & technology universities were a stable trend in terms of per student yearly expenditure in different categories of universities in Bangladesh.

Table-5.8 Relationship between Student-Teacher Ratio and Per Student Yearly Expenditure (In Current Value of Taka)

Categories of Universities	**Student-Teacher Ratio (Weighted Average)**	**Per Student Yearly Expenditure (Weighted Average in Current Value of Taka)**
General	22.24	49319.91
Agricultural	9.18	170987.91
Engineering	14.23	72002.91
Science & Technology	15.83	47074.36
Medical	2.82	254084.27
Professional	8.55	113854.75
Correlation		**-0.89375706**

*Student-Teacher Ratio and Per Student Yearly Expenditure is the average of 2000-2001 to 2010-2011

5.4.2 Government Grant, University Budget and Expenses

It is evident from the table-5.1 that government grant to the UGC was less than the demand of UGC. In relative term government grant to UGC was 90.43 to 98.18 percent of UGC demand. The mean percentage of government grant to UGC recommendation was 94.29, SD 2.74, CV 2.91,

range 7.75, minima 90.43, and maxima 98.18. Statistical result testimony that the UGC had failed to got grant from government according to their demand during the period of study. It is also testimony that there was a high range between the rate of minimum and maximum allocation. After the above analysis it is clear that UGC miserably failed to provide fund to the requirement of university due to lack of government support.

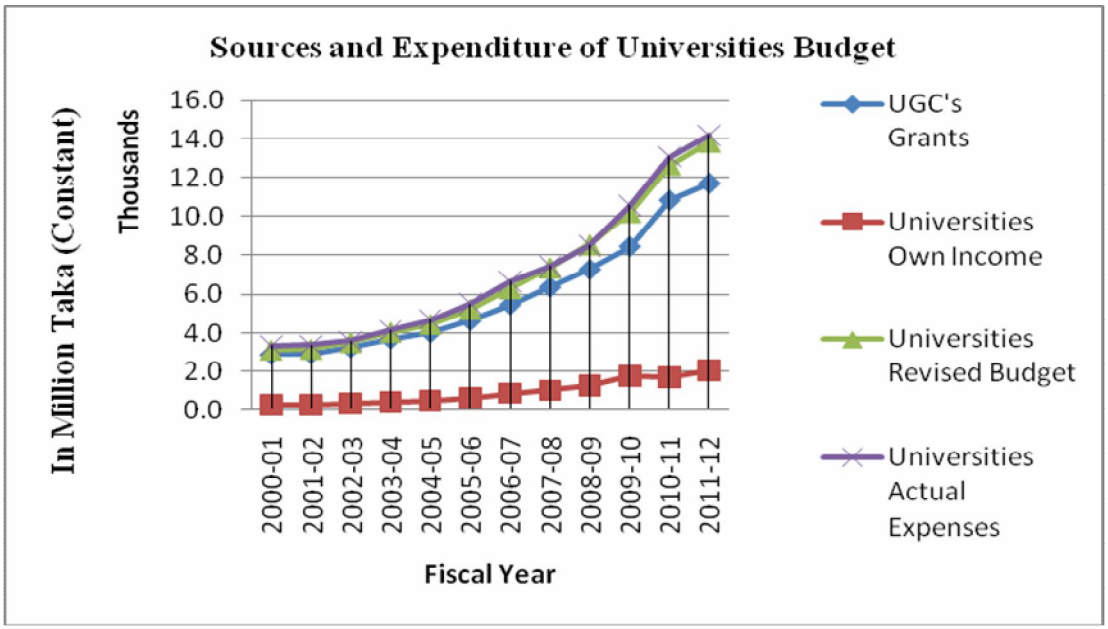
The table also demonstrates that around 8 percent of education budget allocate for public universities in Bangladesh. The mean percentage of university budget to education budget was 7.76, SD 0.65, CV 8.38, range 2.23, minima 6.48, and maxima 8.71. On the other hand around 0.8 percent of national budget allocate for public universities in Bangladesh. The mean percentage of university budget to national budget was 0.82, SD 0.06, CV 7.32, range 0.19, minima 0.73, and maxima 0.92. Statistical results indicate that, there was variability in university budget to education budget as well as university budget to national budget all over the study period. It should be mentioned here that the later part of the study period, the public university's budget allocation was decreased in relative term as percentage of education budget as well as national budget.

The table-A.1 (Appendix-A) demonstrates that UGC grants[4], university own income, revised budget, actual expenses, and expenses for research, fellowship & scholarship of public universities were increased gradually, but the proportion of UGC grants to university budget had a slow decreasing trend

[4] The amount of government financial support to public universities is known as UGC grants. The amount is around 90 percent of the revenue budget of public universities in Bangladesh.

over the period. Figure-5.5 reveals that the trend of UGC grants, university own income, revised budget, and actual expenses were concave shaped.

Figure-5.5 UGC Grants, Universities Own Income, Universities Revised Budget and Actual Expenses (Constant Value in Million Taka)



Source: Self constructed from the source table-A.1 in appendix-A

UGC grant was more than four fifths of total university budget during the whole period of study. Even it was more than 90 percent in the earlier years while less than 90 percent in the later part under review as against the average of 87.7 percent. However in relative terms, there was a decreasing trend of UGC grants to university budget. This situation suggests gradual increase of university own income to revised budget[5]. More revealing is that

[5] Revised budget refers to the budget which is prepared during the fourth quarter of the implementation period considering actual expenditure of the first three quarters, and committed and potential expenditure of the last quarter of the budget period. Revised budget is considered as the final budget and used as a control device.

the actual expenses[6] exceeded the revised budget in most of the years under study (Figure-5.5) as the mean expenditure to revised budget was 103.4. Another revealing aspect is that a negligible percentage of actual expense was used for research, fellowship and scholarship purposes (average 0.182) with high fluctuation (range 0.35). Research, fellowship and scholarship expense was increased very slowly as percent of actual expenses. But on average, it was less than 0.2 percent during the whole period of study. Hartnett (2000) cited in Saint, Hartnett, & Strassner (2003) the Nigeria's federal university system spends 1.3 percent of its budget on research. Saint (2003) stated that the country's (Nigeria) low research output probably reflects the low priority accorded to research and development by government decision-makers. If we compare Nigerian university expenditure for research and development with Bangladesh, we found that it is 7 times higher in the former than in the later.

Considering head-wise expense (salary & pension, education, general & other) to actual expenses, it is observed that the major portion of university revenue budget (mean around 70 percent) was spent for salary & pension. Contrarily, the lowest portion (mean around 12 percent) of university revenue budget was spent for education contingencies[7].

[6] Actual spending is the amount of total expenditure incurred in a budget period and the same is compared with the revised budget.

[7] Education contingencies are one out of five major sub-heads of public university budget. Procurement of books and journals, laboratory recurring costs, cost of publications, library expenses, examination honorarium and expenses, scholarship and stipends, etc., are under the head of education contingencies. Total actual expenses of this head in a budget period are known as education contingencies.

5.4.3 Budget Allocation for Public University, UGC Grant, and Implementation Scenario

It is evident from table-5.9 that most of the year of the study period, head wise university budget was not properly implemented according to the budget manual. Maximum year of the study period expenditure exceeded the revised budget in salary & pension contingencies and non-education contingencies, contrarily education contingencies were under implemented. The mean expenditure of salary & pension to revised budget was 103.07 percent, SD 3.77, CV 3.66, range 14.71, minima 96.15 and maxima 110.86. It indicates that inefficiency in the governance of budget and expenditure in universities of Bangladesh.

Mean expenditure ratio of non-education contingencies to revised budget was 109.10 percent, SD 5.87, CV 5.38, range 19.53, minima 100.02 and maxima 119.73. Every year of the study period, expenditure of non-education contingencies was exceeded revised budget. It indicates that inefficiency in the governance of budget and expenditure in universities of Bangladesh.

Mean implementation rate of education contingencies to revised budget was 99.30 percent, SD 8.06, CV 8.12, range 26.28, minima 87.43 and maxima 113.71. Variability of education contingencies was highest due to highest SD, CV and Range in education contingencies compare with salary and non-education contingencies. Rate of under implementation in education contingencies was more than over implementation. It indicates that budget

implementation authority was not serious for educational needs. Both under implementation and over implementation is not expected. Under or over implementation indicates that there was improper efficiency in the governance of budget and expenditure in universities of Bangladesh.

The table demonstrates that royal part of universities' budget comes from UGC grant in Bangladesh. Year to year the share have been fluctuating, but the share was around 90 percent of revenue budget. Mean revenue grant of UGC to revised budget was 87.40 percent, SD 2.53, CV 2.89, range 8.31, minima 82.83 and maxima 91.14.The trend of UGC grant to revised budget was downward except 2011 during the study period.

The share of revenue grant in UGC total grant was dominating part. Mean revenue grant of UGC grant to total grant was 76.88 percent, SD 4.94, CV 6.43, range 14.66, minima 68.69 and maxima 83.36. Rest of the part of UGC grant allocate for development, research, and other special purpose.

Evident from literature due to lack of research facilities and inadequacy of fund for research, quantity and quality of research has not been increasing, in some cases it has been decreasing in Bangladesh. The research grant from UGC to the universities has been gradually increasing but the share was very negligible during the study period. Mean research grant to UGC's total grant of universities was 0.15 percent, SD 0.11, CV 73.33, range 0.34, minima 0.07 and maxima 0.41. It should be mentioned here that research is one objective of university and another is to provide education. Korean government took initiatives to develop the quality of higher education and as

part of the initiative they spend for research and development in 2008 was 3.5 percent of GDP which was higher than our education allocation 2.39 percent of GDP in the same year.

Government policies and plans have been recommended to increase revenue from internal sources of universities in Bangladesh. The share has been increasing but was not mentionable in the study period. Mean share of own income to revised budget was 13.52 percent, SD 2.67, CV 19.75, range 7.84, minima 9.68 and maxima 17.52. SD, CV and Range indicate that there was high variability in own income of universities. It should be mentioned here that the trend was rising except the last two year of the study period.

Table-5.9 Budget Allocation for Public University, UGC Grant, and Implementation Scenario (%)

Fiscal Year	Salary Budget Achieved	Education Budget Achieved	Non-education Budget Achieved	UGC Revenue Grant to Revised Budget	Revenue Grant to UGC Total Grant	Research Grant to UGC Total Grant	Own Income to Revised Budget
2000-01	105.33	110.22	106.77	91.14	77.75	0.09	9.71
2001-02	110.86	103.92	110.71	86.96	76.18	0.08	9.68
2002-03	96.15	108.37	106.10	90.56	71.80	0.07	11.64
2003-04	102.54	93.01	105.09	90.03	79.87	0.09	11.23
2004-05	100.02	113.71	118.42	89.61	68.69	0.11	11.92
2005-06	103.72	98.70	119.73	88.20	72.82	0.12	15.26
2006-07	106.52	91.81	114.49	86.38	83.36	0.18	16.27
2007-08	100.97	94.25	108.87	86.35	79.27	0.20	15.12
2008-09	99.82	87.43	107.15	85.11	82.15	0.41	17.52
2009-10	105.46	96.96	100.20	82.83	-	-	16.24
2010-11	102.82	97.80	103.34	86.23	-	-	13.02
2011-12	102.57	95.45	108.29	85.36	-	-	14.64
Mean	103.07	99.30	109.10	87.40	76.88	0.15	13.52
SD	3.77	8.06	5.87	2.53	4.94	0.11	2.67
CV	3.66	8.12	5.38	2.89	6.43	73.33	19.75
Range	14.71	26.28	19.53	8.31	14.66	0.34	7.84
Minima	96.15	87.43	100.2	82.83	68.69	0.07	9.68
Maxima	110.86	113.71	119.73	91.14	83.36	0.41	17.52

Source: Self calculated based on the data from annual reports of UGC of Bangladesh from the year 2001 to 2012

5.4.4 Per Student Expenditure of Public Universities in Nominal and Real Value

It is evident from table-5.10 that per student expenditure in real value shown different scenario from nominal value. Per student expenditure in nominal value exposed rising trend, in against the trend was not always growing in real value. Per student expenditure including Open University have more variability than excluding Open University. The trend was ahead in zigzag mode. It should be mentioned here that the seat capacity of Open University is not pre determined. Students admitted in different program including SSC and HSC have been considered the seat of the university. Per student mean expenditure excluding open university in nominal value was Tk.43,890, SD Tk.12,289, CV 28, range Tk.35,774, minima Tk.31,862 and maxima Tk.67,636 in against per student mean expenditure including open university in nominal value was Tk.17,183, SD Tk.9,159, CV 53.3, range Tk.27,965, minima Tk.7,001 and maxima Tk.34,966. On the other hand per student mean expenditure excluding open university in real value was Tk.70,024, SD Tk.5,461, CV 7.8, range Tk.16,264, minima Tk.61,283 and maxima Tk.77,546 in against per student mean expenditure including open university in real value was Tk.26,046, SD Tk.8,623, CV 33.11, range Tk.30,119, minima Tk.14,772 and maxima Tk.44892. Thus per student expenditure of public universities including Open University reveals misleading information. Variability of per student expenditure including Open University was very much higher than excluding Open University. On the other hand per student expenditure have more consistency excluding Open

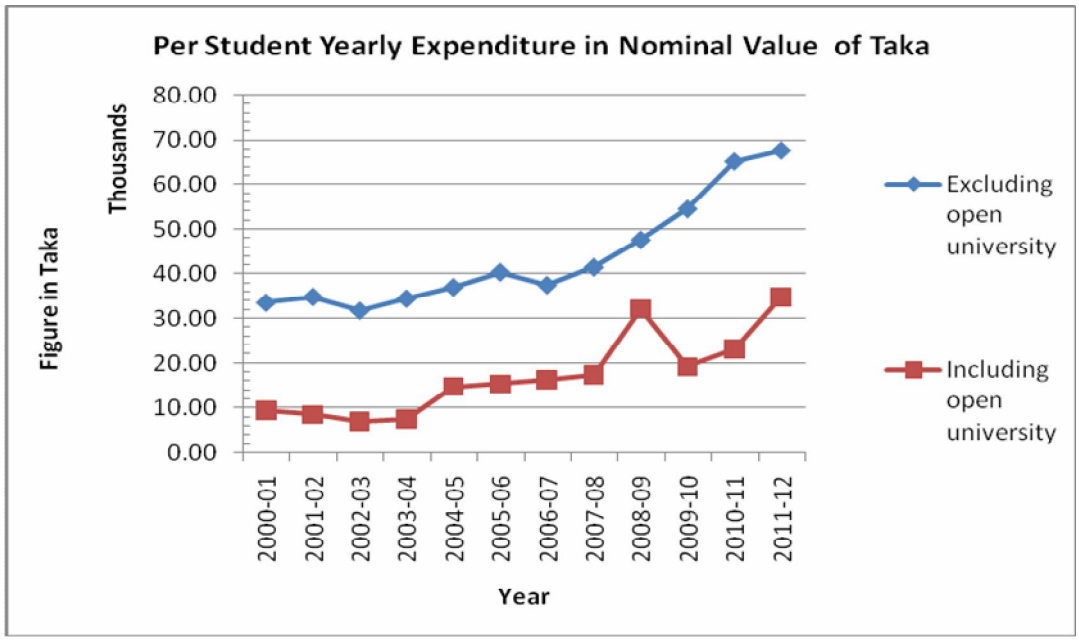
University in real value. CV was low in real value excluding Open University than nominal value. Figure-5.6 indicates that per student expenditure in nominal value excluding Open University increasing gradually year after year but in figure-5.7 the scenario was reverse. When purchasing power of money considered, most of the year during the study period the real expenditure per student has been decreasing compared with the fiscal year 2000-2001 except 2010-2011 and 2011-2012. From the economic point of view this was real scenario, because per student education expenditure have been rising year after year in nominal value but in real value most of the cases gave reverse result. To get real scenario of per student expenditure of public universities in Bangladesh BOU need to exclude from other universities because the nature of university is almost different. In BOU most of the students was in SSC and HSC program. The programs of BOU offer through other educational institutions. BOU only pay honorarium to the concern persons. They have no campus based students.

Table-5.10 Per Student Expenditure of Public Universities in Nominal and Real Value (Figures in Taka)

Year	Per Student Expenditure in Nominal Value of Taka		Per Student Expenditure in Real Value of Taka	
	Excluding Open University	Including Open University	Excluding Open University	Including Open University
2000-01	33660	9579	63174	18219
2001-02	34973	8562	53831	13528
2002-03	31862	7001	55650	12413
2003-04	34579	7529	57182	12611
2004-05	37090	14790	57352	23265
2005-06	40452	15427	58378	22647
2006-07	37597	16282	50609	22291
2007-08	41563	17415	50826	21682
2008-09	47623	32296	54835	37722
2009-10	54477	19223	58315	20914
2010-11	65165	23128	64466	23128
2011-12	67636	34966	73047	37763
Mean	43890	17183	70024	26046
SD	12289	9159	5461	8623
CV	28	53.3	7.8	33.11
Range	35774	27965	16264	30119
Minima	31862	7001	61283	14772
Maxima	67636	34966	77546	44892

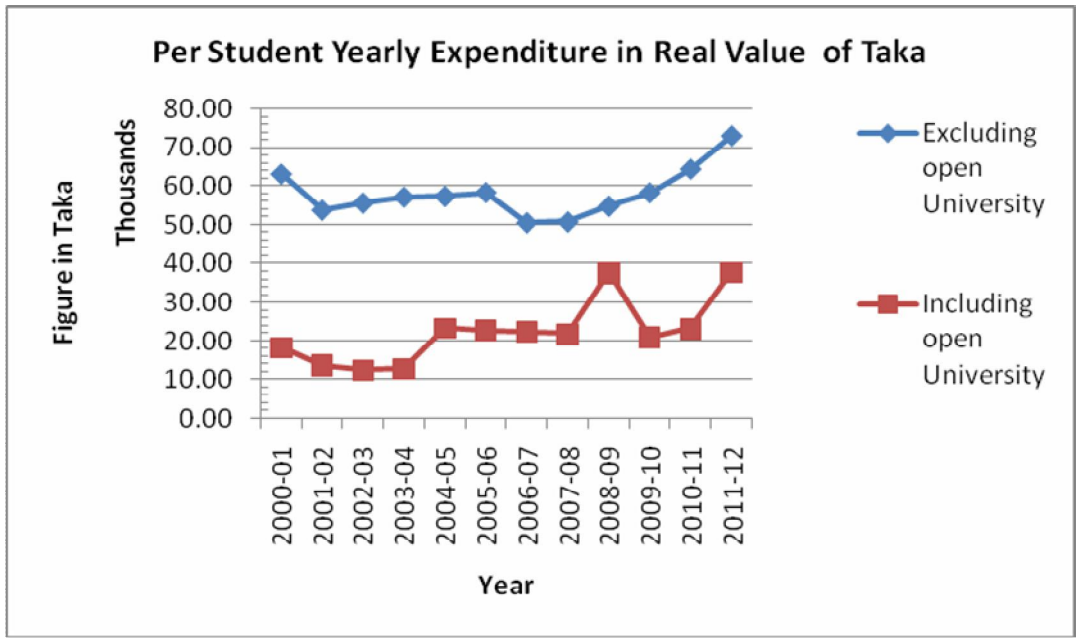
Source: Self calculated based on the data from annual reports of UGC of Bangladesh from the year 2001 to 2012

Figure-5.6 Per Student Yearly Expenditure in Nominal Value of Taka



Source: Self constructed from the source table-5.10

Figure-5.7 Per Student Yearly Expenditure in Real Value of Taka



Source: Self constructed from the source table-5.10

5.4.5 Distribution of Education Contingencies among Major Sub-Heads

Distribution of education contingencies among major sub-heads[8] is shockingly dissimilar in public universities of Bangladesh. It is evident from table-A.7 (Appendix-A) that about 74 percent of education contingencies is exhausted for examination related expenses[9], about 14 percent for education expenses[10] and remaining about 12 percent for students' facilities[11] in the sample universities in the fiscal year 2011-2012. The distribution of education contingencies among major sub-heads was asymmetrical among categories of universities. Agricultural universities spent about 45 percent for exam related expenses and about 38 percent for education expenses. Similarly science & technology universities spent about 52 percent for exam related expenses and about 36 percent for students' facilities. On the other hand general university spent about 80 percent and engineering university spent about 82 percent for exam related expenses. Figure-5.8 visualized the real scenario of actual expenses of education contingencies among three major sub-heads of education contingencies.

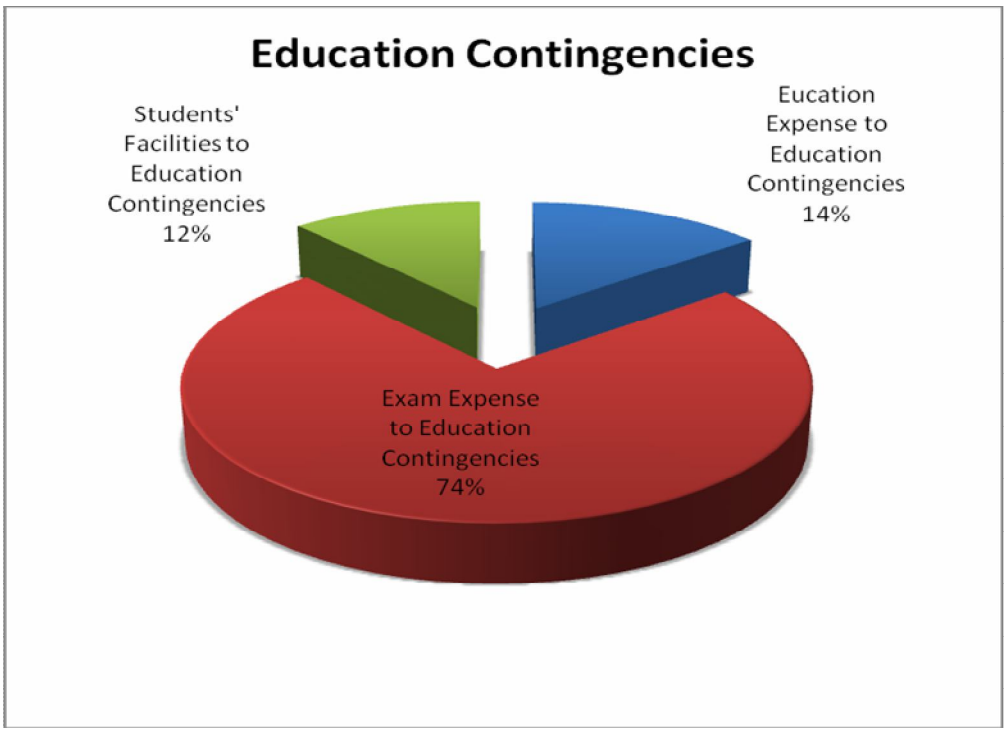
[8] There are three main sub-head such as education expenses, examination related expenses and students' facilities in education contingencies.

[9] Exam related expenses comprises of procurement of paper, printing, remuneration of examiners, etc.

[10] Education expenses comprises of research project, procurement of books and journals, publications, training, seminar/ conference, procurement of scientific equipment and chemical, etc.

[11] Students' facilities include scholarship & stipend, field work & study tour, games, etc.

Figure-5.8 Distribution of Education Contingencies



Source: Self constructed from the source table-A.7 in appendix-A

5.5 Opinion Survey on Allocation and Implementation of Higher Education Budget

5.5.1 Opinion Survey on Allocation of Higher Education Budget

It is evident from table-B.2 (Appendix-B) that 85.7 percent of faculties in the study sample opined that budget allocation for higher education especially in public universities is insufficient. Considering the above reality 88.9 percent of them recommended that the budget allocation for higher education especially in public universities need to be increased. In case of

research budget, 90.5 percent of them opined that the budget for research and development is insufficient and as such 95.2 percent of them recommended for increase in research and development budget. On the other hand, 92.1 (Table-B.3 in Appendix-B) percent of respondent faculties agreed that the cost of higher education is an investment and 95.2 (Table-B.1 in Appendix-B) percent of them believed that higher education is the way to economic development through human resource development. They (82.5 percent of respondent faculties) also agreed that insufficient budgetary allocation is an impediment to HRD through higher education (Table-B.2 in Appendix-B).

5.5.2 Opinion Survey on Implementation of Higher Education Budget

It is also evident from table-B.2 (Appendix-B) that 76.2 percent of respondent faculties believed that budget for higher education especially for public universities is not properly implemented. They (84.1 percent of faculties under the study sample) also agreed that inappropriate implementation of budget is an impediment to HRD through higher education.

5.6 Conclusion

It can be concluded that low budgetary allocation and inefficient implementation are one of the root causes of low quality higher education in Bangladesh. The trends of revenue budget allocation on education and UGC grants to public university budget (percentage) in Bangladesh have been decreasing gradually. Public expenditure on education and higher education

as percentage of GDP and government expenditure is even far below than the recommendations of different education commissions. It is also far below than the UNESCO standard, UNDP's benchmark, and practices of South Asian countries. It should be mentioned here that Government grant to the UGC of Bangladesh is always less than its demand. On the other hand education budget scenario in Bangladesh is frustrating in terms of real value. Per student yearly expenditure in real value was decreased in most of the years under the study and it was unexpectedly varied among different categories of universities. It was 3 to 5 times higher in technical universities especially in medical, agricultural, and professional universities than in general, engineering, and science & technology universities. More revealing is that actual expenditure had exceeded the revised budget of public universities in most of the years during the study period. Consequently, public universities in Bangladesh have been expending a notable amount from undisclosed or unidentified or unexplained sources, which suggest lack of transparency in budget execution and noncompliance of budget manual. It is a clear indication of poor governance. More discouraging is that on an average, 70 percent of revenue budget is used for salaries and pension as against around 30 percent for general and education contingencies. A negligible amount (0.07 to 0.4 percent) of total revenue budget has been spent for research, fellowships and scholarships though research, and creation & dissemination of new knowledge are the main objectives of higher academic institutions. There are a few alternative sources available to finance public universities in Bangladesh. As a result universities are bound

to slash costs other than salaries and pension which might have created impediment to quality higher education in Bangladesh. Budget allocation for teaching, learning and research need be enhanced to keep pace with higher education standard of the developed countries. Some education policy planners want to enhance university income from tuition and others. But in reality, it is not easy to meet the deficit budget of public universities through rising tuition fees and other charges from students. If tuition fees and other costs are increased, talented but poor students may not get access to higher education as scholarships and fellowships are almost absent in Bangladeshi Public Universities.

Chapter Six

UTILIZATION OF HIGHER EDUCATION BUDGET FOR HRD

UTILIZATION OF HIGHER EDUCATION BUDGET FOR HRD

This chapter addresses the issues namely HDI of Bangladesh, unemployed higher educated people in Bangladesh, financial consequences of unemployed higher educated people, quality of higher education and unemployment, session jam in higher education, duration of session jam, financial consequences of government and guardians due to session jam, employment nature and higher education budget in Bangladesh, and conclusion.

6.1 Prelude

It is an established fact that higher education contributes to the economic and social development through transforming unskilled population into human resource. Usually expenditure for higher education is considered as an investment and the investment must be well planned and well utilized in order to reap maximum return from such investment. Human being could be transformed into human asset through higher education. Higher education consumes a huge amount of public and private funds to transform human burden into human asset, but because of existing job pattern in Bangladesh and requirements placed in recruitment, contribution from higher education is not at all satisfactory (Alam, Khalifa, & Shahjamal, 2009). In this chapter utilization of higher education budget has been analyzed in light of unemployment scenario of higher educated people, session jam in higher academic institutions and nature of employment of higher educated people.

The researcher has strived to expose the amount as well as the share of higher education budget was utilized unproductively during the period of review.

6.2 HDI of Bangladesh

6.2.1 Human Development Index (Value)

Table-6.1 presents human development index (HDI)[1] of Bangladesh along with South Asian countries as well as the average HDI values of South Asian and least developed countries, and the world. The HDI value of Bangladesh had a gradual increasing trend during the period of study. The HDI value was increased to 0.515 (1.7 times) in 2012 from 0.303 in 1980. In 2012, the HDI position of Bangladesh was jointly 6th with Pakistan out of nine South Asian countries namely Bangladesh, India, Pakistan, Sri Lanka, Nepal, Bhutan, Maldives, Afghanistan and Iran. Bangladesh was in a better position than Nepal (0.463) and Afghanistan (0.374) only. Even the HDI-2012 value of Bangladesh (0.515) was lower than South Asian average (0.558), and World average (0.694), and only a little better than least developed countries (0.449).

[1] The HDI is a summary assessment of human development and it examines the average achievements of a country in three basic dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living (UNDP-2011, p.168). HDI is the geometric mean of standardized indices measuring achievements in each dimension (UNDP-2011, p.168).

Table-6.1 Human Development Index (Value)

Country	1980	1990	2000	2005	2009	2010	2011	2012
Bangladesh	.303	.352	.422	.462	.491	.496	.500	.515
India	.344	.41	.461	.504	.535	.542	.547	.554
Pakistan	.359	.399	.436	.48	.499	.503	.504	.515
Sri Lanka	.539	.583	.633	.662	.68	.686	.691	.715
Nepal	.242	.34	.398	.424	.449	.455	.458	.463
Bhutan	-	-	-	-	-	.518	.522	.538
Maldives	-	-	.576	.619	.65	.658	.661	.688
Afghanistan	.198	.246	.23	.34	.387	.394	.398	.374
Iran	.437	.534	.636	.671	.703	.707	.707	.742
South Asia	.356	.418	.468	.51	.538	.545	.548	.558
Least Developed Countries	.288	.32	.363	.401	.431	.435	.439	.449
World	.558	.594	.634	.66	.676	.679	.682	.694

Source: Human Development Report 2011, Table No- 2, Page-131 to 134 and Human Development Report 2013, Table No- 1, Page-144 to 147.

6.2.2 Human Development Index (Education)

According to HDR-2013 in Table 6.2, Bangladesh acquired 146th position among 187 countries, laying in the low human development group. More discoursing is that the adult literacy rate of Bangladesh was 56.80 as against least developed country average of 60.7 and South Asian average of 62.80, not to talk of World average of 81.30. Bangladesh obtained higher position than Pakistan and Bhutan only, but lower position than the remaining five countries in the South Asian region. The gross enrolment rate at the tertiary level education in Bangladesh was 10.6 percent having fourth position in South Asian countries. Gross tertiary enrolment in Bangladesh was higher than the least developed country average (6.6 percent), but lower than the South Asian country average (15.7 percent), and immensely lower than the World average (28.7 percent). Besides, Bangladesh held the 3rd lowest position in South Asian countries considering GDP per capita in 2011. Public expenditure on education in Bangladesh as percent of GDP during 2005 to 2010 was 2.20 percent, became the 2nd lowest country in the South Asian region based on HDR-2013.

Table-6.2 Human Development Index (Education)-2012

Country	HDI Rank 2012	Adult Literacy Rate (%), 15 years and older	Gross Enrolment Rate (%)			GDP per capita (2011) in USD	Public exp. on education (% of GDP) (2005-2010)
			Primary	Secondary	Tertiary		
Bangladesh	146	56.8	95.1*	42.3*	10.6	1,568	2.2
India	136	62.8	118	60	16.2	3,203	3.1
Pakistan	146	54.9	95	34	5.4	2,424	2.4
Sri Lanka	92	91.2	99	87	15.5	4,929	2.1
Nepal	157	60.3	115	44	5.6	1,102	4.7
Bhutan	140	52.8	111	70	8.8	5,096	4.0
Maldives	104	98.4	109	71	-	7,834	8.7
Afghanistan	175	-	97	46	3.3	1,083	7.4*
Iran	76	85	108	84	42.8	10,462	4.7
South Asia	-	62.8	113.6	57.6	15.7	3,241	3.2
Least Developed Countries	-	60.7	101.8	36	6.6	1,346	3.7
World	-	81.3	107.9	72.2	28.7	10,103	4.9
Correlation with Public Exp. (% of GDP)		0.544	0.202	0.090	-0.048		

Source: Human Development Report 2011, Table No- 9 & 10, Page- 158 to 165 and Human Development Report 2013, Table No- 8 & 10, Page- 170 to 173

* Data from HDR 2011

6.2.3 National Education Budget and HDI Value

It is evident from table-A.5 (Appendix-A) that there is a high positive correlation (0.919) between national education budget and HDI value during 1990 to 2012. Table-6.2 reveals that public expenditure on education as percent of GDP in the south Asian countries had positive correlation with adult literacy rate (0.544), gross enrolment rate at the primary level (0.202), and at the secondary level (0.09), but a negative correlation with gross enrolment rate at the tertiary level (-0.048).

Tilak (2003) found that higher education receives less than one percent of GNP in most of the countries and only in the tiger economies of the East Asia, oil-rich West Asia, Australia and New Zealand the corresponding proportion is above one percent. In Bangladesh, only 0.12 percent of GDP is spent for higher education, considering the global importance of higher education this is a very low figure indeed (UGC, 2006, p.9). A proposal for education expenses of the developing countries was considered in the Education Ministers' Conference held in Tokyo in 1962. It was proposed that the standard expenditure on education should be 4 to 5 percent of national income and on the basis of that proposal the Bangladesh Education Commission 1974 headed by Dr Qudrat-e-Khuda recommended that the education expenditure to be increased to 5 percent of nation income within a short period and as early as possible it should be increased to 7 percent (GOB, 1974). As against this, the government expenditure on education was only 2.23 percent of GDP in 2009 and for tertiary education was 0.30 percent of GDP in 2010 (UNESCO Institute for Statistics). Thus the

government has miserably failed to give due attention to the education sector especially to higher education and consequently, human development of the country.

6.3 Unemployed Higher Educated People in Bangladesh

6.3.1 Backdrop

Unemployment is a serious problem in Bangladesh. The unemployment of huge products of education implies that education is not effective and relevant for their absorption in appropriate jobs in Bangladesh (Islam, 2008, p.146). According to the Labor Force Survey (2010), (Table-6.3) out of 2,568 thousand unemployed person, 642 thousand have no education, 1,820 thousand have education up to HSC or equivalent level, 105 thousand have under-graduation and above, and 1 thousand in other category. The government and the guardians of those 105 thousand citizens spend a huge amount of money to educate them. Due to unemployment, total investment of the government and the graduates themselves or their guardians could be considered as idle investment from the economic point of view. It should be mentioned here that 38.9 million people were not included in labor force (household workers, students and people engaged in non-economic activities), 53.1 million were below age 15 years. Only 56.7 million were in the labor force which was only 38.31 percent of total population.

Table-6.3 Unemployment Scenario in Bangladesh

Particulars	**Population in Million**	**% of total population**	**% of working age population (15+)**
1.Total Population	148.7	100	
2. Working age (15+) population (3+4)	95.6	64.29	100
3. **In the labor force**	**56.7**	**38.13**	**59.31**
a. Employed population	54.1	36.38	56.59
b. Looking for job (unemployed)	2.6	1.75	2.72
4. Outside of the labor force	**38.9**	**26.16**	**40.69**
a. Household work	26.2	17.62	27.41
b. Students	6.8	4.57	7.11
c. Engaged in non-economic activities (beggar, disabled, retired, etc.)	5.9	3.97	6.17

Source: Self constructed from data of the Labor Force Survey 2010, BBS (2011).

6.3.2 Financial Burden of Unemployed Higher Educated People

Government and guardians of the unemployed higher educated people have been spending a big amount of money to educate the unemployed graduates.Table-A.3 (Appendix-A) shows their short-term unemployment period in different categories of universities. Students of general universities were 10.01 months, agricultural universities were 9.42 months, engineering universities were 7.29 months and science & technology universities were 9.40 months unemployed before getting their first job. Guardians have been spending on an average Taka 68,838 to Tk. 84,384 per year for each student and the government has been spending Taka 49,320 to Tk. 170,988 per student in different categories of universities. Per student expenditure in their university schedule time (normal required time) in general universities was Tk.604,220, in engineering universities was Tk.737,253, in science & technology universities was Tk.647,753, and in agricultural universities was Tk.1,317,044. Owing to unemployment problem, total investment of the government and guardians was idle investment for the period of unemployment. Similarly, investment for life time unemployed people is totally idle investment.

6.3.3 Quality of Higher Education and Unemployment

Evidence from literature reveals that the quality of higher education in Bangladesh is not up to the mark and it has been decreasing gradually over the period. In this context, the researcher has tried to find out whether the sum of unemployed higher educated people has been increasing gradually

due to low quality higher education. It is evident from table-6.4 that the mean score and mode of alumnae opinions were 3.93 and 5.00 respectively in 5.00 point scales. The statistical results testimony that the unemployment problem is, more or less, related to the quality of higher education.

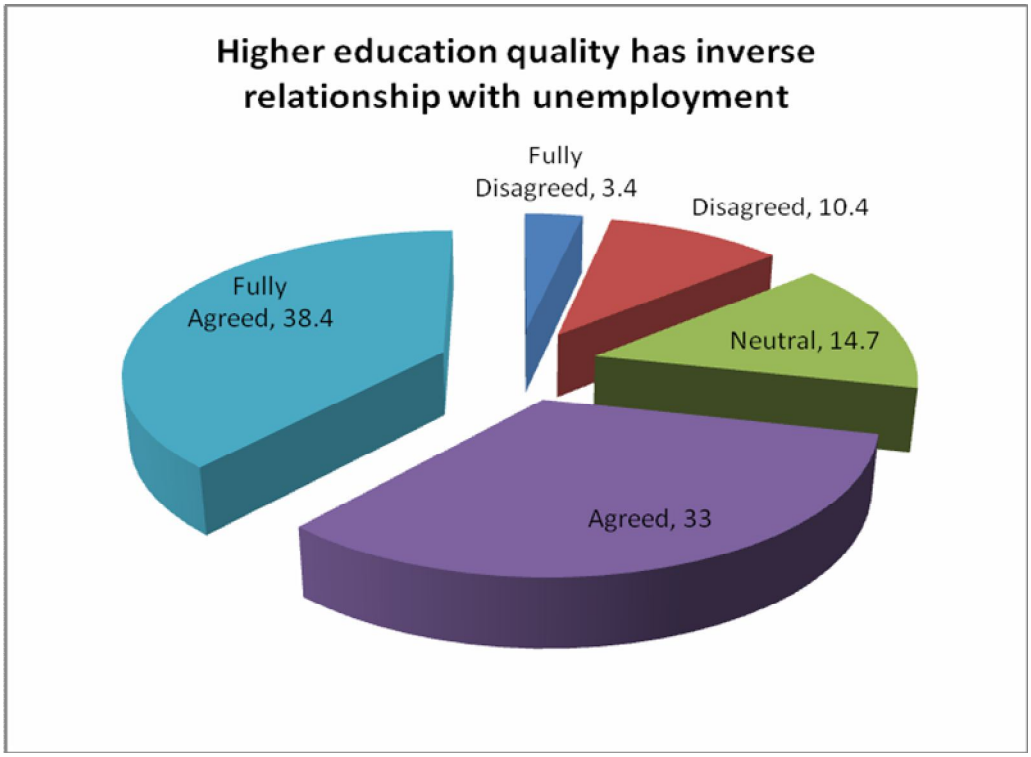
Table-6.4 Impact of Higher Education Quality on Unemployment

Statistics	**Value**
Mean	3.93
Mode	5.00
Total Frequency	557

Source: Analysis of primary data collected from alumnae through questionnaire.

Figure 6.1 also testimonies that more than 71 percent alumnae agreed with the statement that quality of higher education has inverse relationship with unemployment. Out of the total respondents, 38.4 percent was fully agreed and 33 percent agreed, while only 13.8 percent disagreed. Thus quality of higher education has inverse relationship with the quantity of unemployed graduates.

Figure 6.1 Relationships between Higher Education Quality and Unemployment



Source: Self constructed through primary data analysis.

6.3.4 Proposal for Reduction of Unemployed Higher Educated People

It is evident from table-B.8 (Appendix-B) that 61.9 percent of faculties under the study stressed on the need for reducing the lengthy system of recruitment through providing all government jobs based on merit and choice from one examination for jobs (36.5 percent) and arrangement of job fair (34.9 percent). Importance should be given on merit (65.1 percent) only and gradually reduces quota system (68.3 percent) for providing job. They also gave emphasis on (41.3 percent) reducing unemployment at zero level.

6.4 Impact of Session Jam

6.4.1 Backdrop

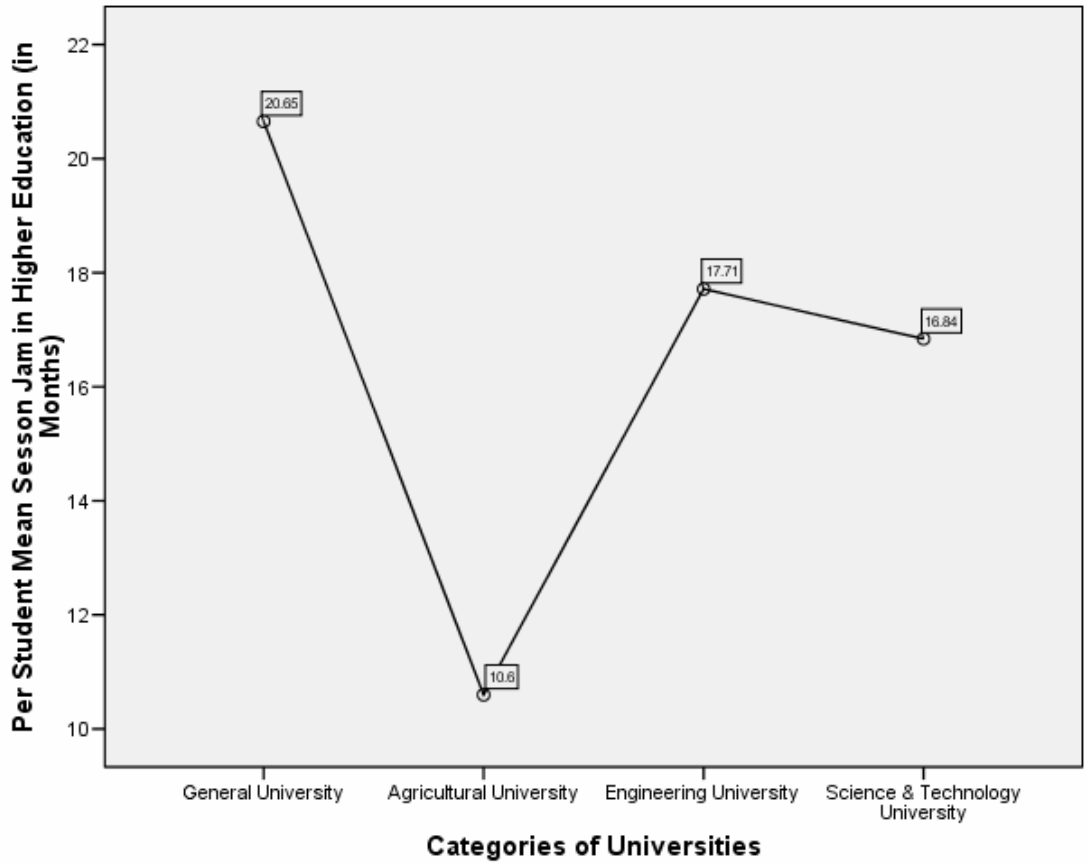
Session jam in higher education especially in public universities in Bangladesh is a matter of discussion and debate in public gathering as well as in different seminars and symposia on higher education. It disrupts the academic life of the university students. The lengths of academic life of the students beyond schedule session consume extra resources of their parents and the academic institutions (Islam, 2012, p.81). On the other hand there is an opportunity cost for the students due to session jam. They could use the period of session jam for any productive purpose if this situation did not arise at all. In reality there are triangular losses. Government has to spend extra money for the students in the extra period than the required period due to session jam. Parents need to bear extra financial burden for additional period than the required period. Students are also losing for not getting jobs during the delayed period due to session jam. They could get employment earlier if there was no session jam. Thus the government is failed to utilize its human resources properly in the economic development of the country. Concurrently, running of many sessions simultaneously put huge stress on the administration, management and facilities of higher academic institutions which ultimately affects the quality of higher education and community life of the students (Islam, 2012, p.81). Academic session in some public universities of Bangladesh is delayed badly and as such students and their guardians' are compelled to bear the financial and nonfinancial losses in one

side and a huge amount of social and state assets is misused in other side. Consequently, the national goal of human resource development is seriously disrupted (UGC 2011, p.216).

6.4.2 Duration of Session Jam in Higher Education

As is evident from table-A.3 (Appendix-A) that session jam was responsible for loss of several student months of their academic life. The periods of session jam were different in different categories of universities. The average duration, based on primary data, was higher in general universities (20.65 months) and lower in agricultural universities (10.6 months). This was also varied within the group and between the groups due to various reasons. Figure-6.2 visualize common scenario of average session jam in different categories of public universities.

Figure 6.2 Per Student Mean Session Jam in Different Categories of Universities (in Months)



Source: Self constructed through primary data analysis.

The following hypothesis was developed to test the above situations.

H_0: Session jam does not vary among different categories of universities.

H_1: Session jam varies among different categories of universities.

Table-6.5 Duration of Session Jam does not Vary among Different Categories of Universities

	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	5657.710	3	1885.903	12.275	0.000
Within Groups	84964.319	553	153.643		
Total	90622.029	556			

Source: Analysis (ANOVA) of primary data collected from alumnae through questionnaire

The calculated F statistic (table-6.5) is significant with p-value of less than 0.01. The test results testimony that the null hypothesis can be rejected at 1 percent level of significance. This result implies that the duration of session jam was varied among different categories of universities.

H_0: Session jam does not vary in different period of time.

H_1: Session jam varies in different period of time.

Table-6.6 Duration of Session Jam does not Vary in Different Period of Time

	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	10991.588	25	439.664	2.932	0.000
Within Groups	79630.441	531	149.963		
Total	90622.029	556			

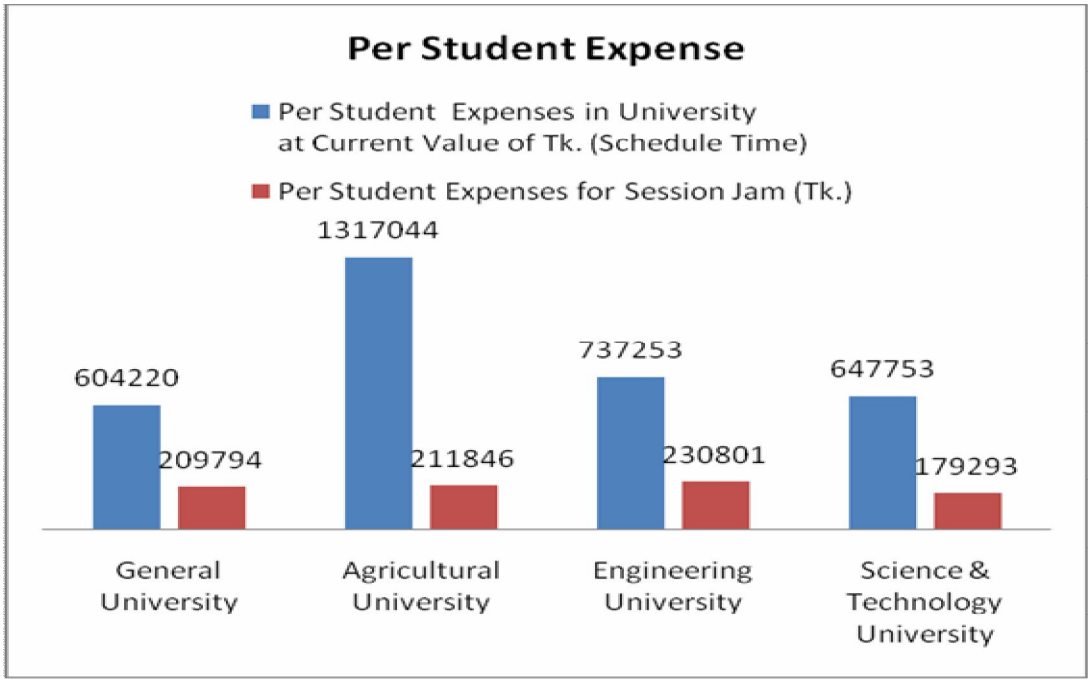
Source: Analysis (ANOVA) of primary data collected from alumnae through questionnaire

The calculated F statistic (Table-6.6) is significant with p-value of less than 0.01. The test results testimony that the null hypothesis can be rejected at 1 percent level of significance. This result implies that duration of session jam was varied in different time periods.

6.4.3 Financial Consequences of Session Jam

It is evident from table-A.3 (Appendix-A) that due to session jam a big amount of money was spent both by the guardian and the government for a student to complete his/her graduation and post graduation. Financial involvement of guardians and government in current value of taka was determined. Constant value of Taka was converted into current value of 2013 by using Consumer Price Index (CPI). It is found from the statistical computation that per student extra expense was highest (Tk.230,801) in engineering universities, followed by agricultural universities (Tk.211,846), general universities (Tk.209,794), and science & technology universities (Tk.179,293) in that order. In relative term general universities consumed 25.77 percent, agricultural universities consumed 13.86 percent, engineering universities consumed 23.84 percent and science & technology universities consumed 21.68 percent extra expenses due to session jam.

Figure 6.3 Per Student Expenses in University (Government and Guardian) at Current Value of Taka



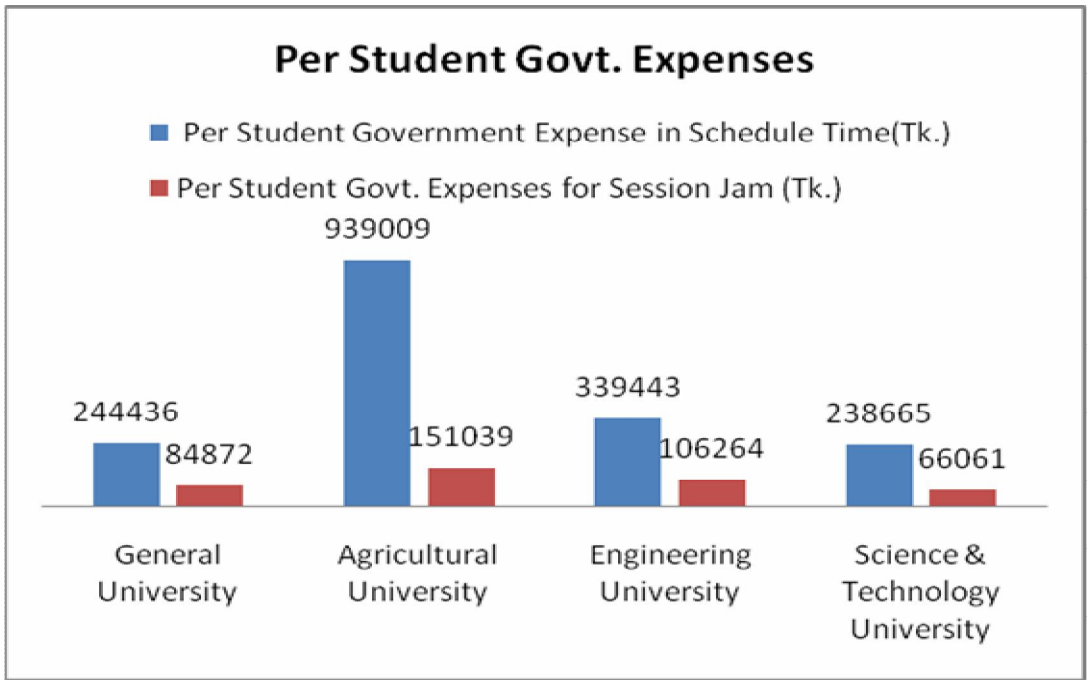
Source: Self constructed from source table-A.3 in appendix-A

6.4.3.1 Financial Pressure on Government

It is evident from table-A.3 (Appendix-A) that the public universities in Bangladesh had to spent a big amount of extra money for each and every student due to session jam. Session jam was not equal in all categories of universities and within a particular category of universities. Extra expenditure by the government was also varying in different categories of universities. Statistical results reveal that the government had spent on an average Tk. 939,009 per student of agricultural universities in schedule time and Tk.1,090,048 to complete their university level. Thus the extra amount

spent per student due to session jam was Tk. 151,039 (0.16 times of the scheduled expenses). The government had also to spend a big amount of extra money per student for general universities (0.35 times of the schedule expenses), for engineering universities (0.31 times of the schedule expenses) and (0.28 times of the schedule expenses) for science & technology universities (Figure-6.4) but the amount in absolute term was far less than the agricultural universities. In relative term, general universities consumed 25.77 percent, agricultural universities consumed 13.86 percent, engineering universities consumed 23.84 percent and science & technology universities consumed 21.68 percent extra expenses of the government due to session jam.

Figure-6.4 Per Student Government Expenses at Current Value of Taka

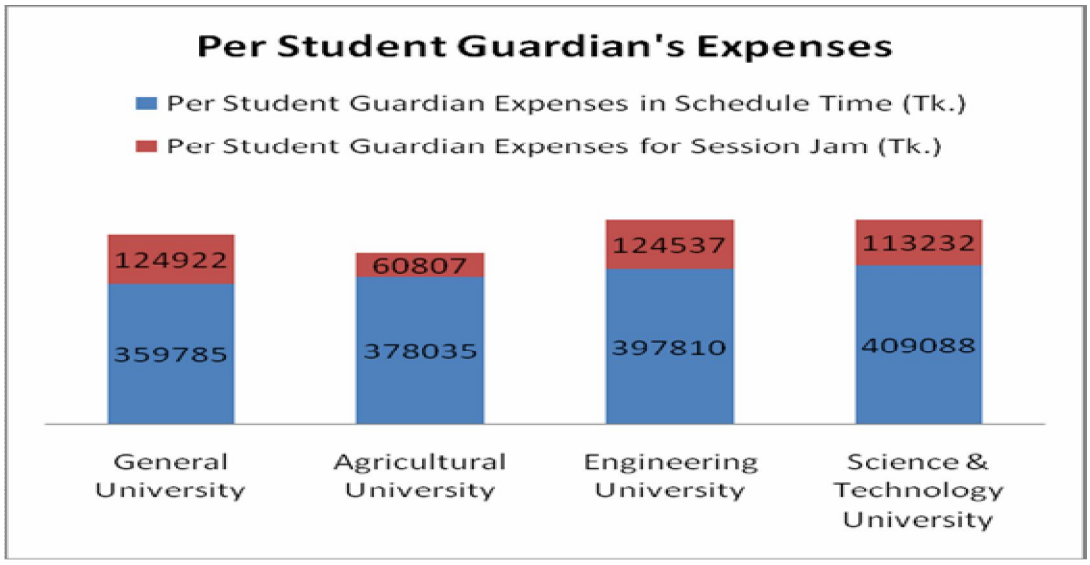


Source: Self constructed from source table-A.3 in appendix-A

6.4.3.2 Financial Pressure on Guardians

It is evident from table-A.3 (Appendix-A) that every student of public universities in Bangladesh had spent extra money due to session jam. Extra expenditure by the students and or their guardians was also varied in different categories of universities. It is found from statistical results that on an average every student of general universities had to spend an extra amount of Tk.124,922 and engineering universities had to spend an extra amount of Tk.124,537 in their graduation or graduation with post graduation level. Students of others categories of universities also had to spend a big amount of extra money due to session jam, but the amount was less than that of the general universities and engineering universities (Figure-6.5). In relative term general universities consumed 25.77 percent, agricultural universities consumed 13.86 percent, engineering universities consumed 23.84 percent and science & technology universities consumed 21.68 percent extra expense of the guardians due to session jam.

Figure-6.5 Per Student Expenses of the Guardians at Current Value of Taka



Source: Self constructed from source table-A.3 in appendix-A

6.4.4 Financial and Non-financial Consequences of Session Jam on Students

It is evident from table-B.6 (Appendix-B) that there were financial and non-financial consequences of session jam. About 62 percent faculties of the study sample agreed that extra expense of government was misused due to session jam. Similarly, about 59 percent faculties also opined that extra expense of guardians was misused and about 56 percent alleged that the students had to lose their earnings opportunities due to unusual delay in starting their working life. Concomitantly, about 64 percent of the faculties thought that delayed working life was the outcome of session jam which might have slowed down the economic development of the country.

6.5 Employment Nature and Higher Education Budget in Bangladesh

6.5.1 Backdrop

It is evident from literature that the return from higher education is not satisfactory due to high unemployment and job nature. In this part of the chapter the researcher has tried to unveil the financial and non-financial consequences relating to employment nature of higher educated people. table-A.6 (Appendix-A) reveals that most of the employments were not related to higher education discipline. Many Civil Engineers, MBBS Doctors, Veterinary Doctor were not placed in their area of expertise and specialized fields. They got job in foreign affairs, police, administration, and

customs which could be performed by the non-technical graduates, but it is not possible to serve in technical fields by non-technical graduates. Graduates from the discipline of genetics engineering, computer engineering, micro biology, chemistry, business administration from IBA of DU and other universities are also opted for jobs in administration, police, customs, and foreign affairs. Contrarily, graduates from international relations hardly get job in foreign affairs and students of public administration are getting job in foreign affairs. It is one kind of unproductive and improper utilization of public as well as private funds and expertise. Table-A.6 (Appendix-A) shows the discipline and cadre of 1st 10 placed candidates from 28th BCS to 31st BCS examinations.

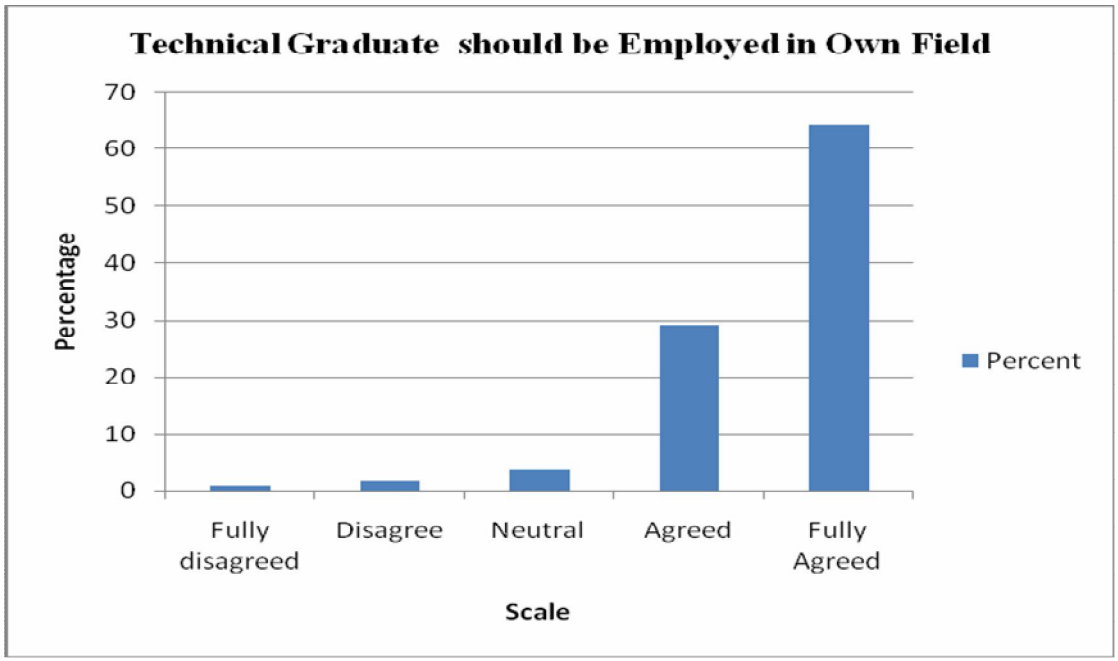
6.5.2 Financial Involvement of Employment Nature

Table-A.4 (Appendix-A) discloses that around 13.6 percent of non-technical jobs were occupied by the graduates in the field of agriculture including Veterinary Doctors and 7.7 percent of non-technical jobs were occupied by highly technical engineering graduates. As stated earlier (in chapter-5) per student yearly expenditure in agricultural universities was around 3.5 times higher than general, and science & technology universities. When an agricultural graduate joins in a non-technical job then around 88 (Table-A.3 in Appendix-A) percent of expenses for that graduate from government fund should be treated as unproductive expenses because the objective of producing technical graduates is to utilize their expertise in their field of specialization.

6.5.3 Opinion Survey on Employment Nature

It is evident from table-6.7 that the mean score of opinions of the alumnae regarding technical graduates should be employed in their own field of specialization was 4.54 in the scale of 5.00 and mode was 5.00. Figure 6.6 depicts the alumnae opinions on agree with the statement.

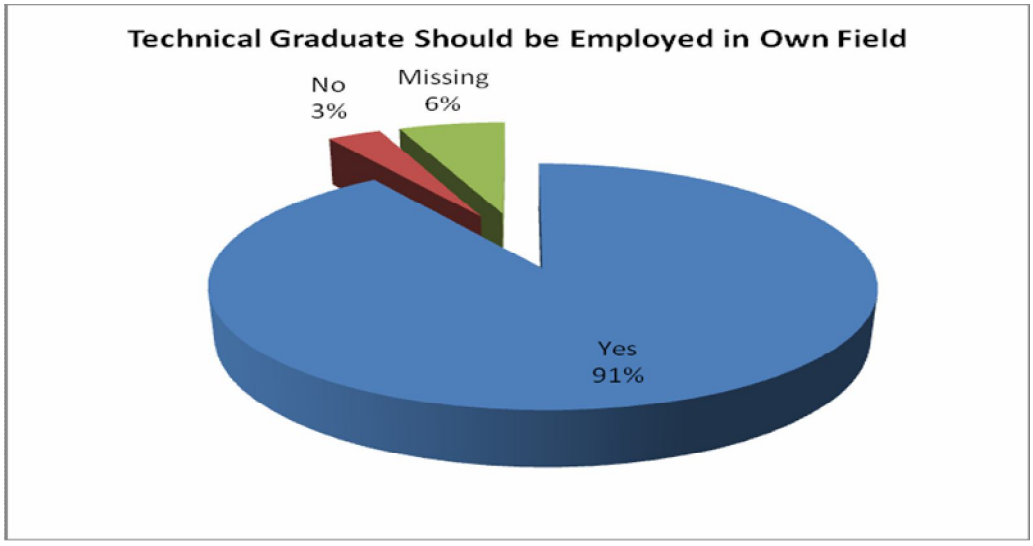
Figure-6.6 Technical Graduates should be Employed in Technical Fields



Source: Self constructed from primary data collected through questionnaire from alumnae

Most (90.5 percent) of the faculties (Table-6.7) in the study sample agreed that the technical graduates (doctor, engineer, agronomist, etc.) should be employed in their own field of specialization. Figure 6.7 shows the opinions of the faculties on the statement.

Figure-6.7 Technical Graduates should be Employed in Technical Fields



Source: Self constructed from primary data collected through questionnaire from faculties

Similarly, 60.3 percent of the faculties under the study believed that employee productivity would be increased if the technical graduates were employed in their study area (Table-B.8 in Appendix-B).

Table-6.7 Technical Graduates should be Employed in their Own Field of Study

Alumnae Opinion		**Faculties Opinion**		
Statistics	**Value**	**Opinion**	**Frequency**	**Percentage**
Mean	4.54	Yes	57	90.5
Mode	5.00	No	2	3.2
		No Comment	4	6.3
Total Frequency	557	Total	54	100

Source: Analysis of primary data collected through questionnaire from alumnae and faculties

6.5.4 Effects of Employment Nature

It is evident from table-B.6 (Appendix-B) that 46 percent of the faculties under the study agreed that extra investment for technical graduates employed in non-technical jobs is unproductive. They also opined that (Table-B.7 in Appendix-B) the productivity of a technical graduate is reduced (42.9 percent opted) when he works in a non-technical field.

6.5.5 Proposal on Employment of Higher Educated People

It is evident from table-B.8 (Appendix-B) that 52.4 percent of the faculties under the study felt that new intake in discipline of higher education should be based on the scope of potential job opportunities in a particular field. To create awareness, 31.7 percent of them believed that the counseling system should be introduced in HSC level for higher education and future employment. Similarly, 69.8 percent proposed to include the importance of self employment in course curricula to motivate higher educated people for self employment (68.3 percent).

6.5.6 Motivation to Selection of Job

It is evident from table-6.8 that promotion prospect (mean score 3.59 out of 5.00), prestigious job (mean score 4.24 out of 5.00) and working environment (mean score 3.24 out of 5.00) had a positive influence on selection of existing job by the respondent alumnae. But salary structure (mean score 2.34 out of 5.00), non-financial benefits (mean score 2.86 out of 5.00), and exertion of

power (mean score 2.41 out of 5.00) did not have any positive influence on selection of their present job.

Table-6.8 Motivation to Selection of Job

Description	**Factors and Mean Score (in the scale of 5)**						
	Salary Structure	**Promotion Prospect**	**Non-financial Benefits**	**Prestigious**	**Work Environment**	**Exert Power**	**No Other Opportunity**
Overall Mean Score	2.34	3.59	2.86	4.24	3.24	2.41	2.50
Class One	2.40	3.74	2.99	4.45	3.43	2.61	2.03
Class Two	2.23	3.30	2.58	3.81	2.87	2.01	3.44

Source: Analysis of primary data collected through questionnaire from alumnae

6.5.7 Relationship of Higher Education with Job

It is evident from table-6.9 that the mean score of the statement 'higher education helps get the job' was 3.62, 'knowledge of higher education directly used in the job' was 2.76 and 'job nature is directly related to higher education' was 2.27 in the scale of 5.00. The statistical result of alumnae opinions implies that higher education positively assisted the respondent alumnae to get job while use of higher education in the job and relationship between job nature and higher education were very frustrating.

Table-6.9 Impact of Higher Education on Job

Description	Factors and Mean Score (5.00 point scale)			
	Knowledge Helps Get Job	**Knowledge Directly Used in Job**	**Job Nature to Study Discipline**	**Level of Job Satisfaction**
Mean Score	3.62	2.76	2.27	3.38

Source: Analysis of primary data collected through questionnaire from the alumnae

6.5.8 Level of Job Satisfaction

It is evident from table-6.9 that the mean score of job satisfaction of the higher educated people in Bangladesh in their present job was 3.38 in the scale of 5.00. The mean score implies that overall job satisfaction of the alumnae in their present job was not at all acceptable.

6.5.9 Perception of the Alumnae on the Position of Job

It is evident from table-6.10 that 75 percent of the class one officers and only 17 percent of class two officers felt that they were holding right job position while only 12 percent class one and 71 percent class two officers felt that they were holding lower job position than they ought to have. It should be mentioned here that for most of the class two officers had no alternative job

to select (Table-6.8) and as such they had to select their present job finding no other option. The mean score of the second class officers regarding their opinions of 'no other job option' was 3.44 while mean score of class one officers was 2.03 out of 5.00.

Table-6.10 Perception of Alumnae Regarding their Present Job Position

Perception	**Class One**		**Class Two**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Right job position	280	75.27	32	17.30
Lower job position	44	11.83	132	71.35
Higher job position	11	2.96	1	0.54
Others	37	9.94	20	10.81
Total	**372**	**100.00**	**185**	**100**

Source: Analysis of primary data collected through questionnaire from the alumnae

6.6 Conclusion

The human resource development scenario in Bangladesh is in a very poor shape. With regard to Human Development Index (HDI), Bangladesh occupied 6th position out of nine South Asian countries though the HDI value of Bangladesh has a gradual increasing trend over the period but was lower than South Asian average and World average and only a little better than least developed countries. Bangladesh acquired 146th position among 187 countries, laying in the low human development group. The adult literacy rate of Bangladesh was lower than the average of least developed countries and South Asian average, not to talk of World average. In respect of gross enrolment rate at the tertiary level of education, Bangladesh has occupied fourth position among South Asian countries. There is a high positive correlation between national education budget and HDI value.

The purpose of higher education is to transform population into skilled manpower. The valid ground for this objective is that the skilled manpower should be employed in their own field of study to reap maximum benefits from their expertise and specialized knowledge. In order to attain the goal of higher education, different fields of study such as medical, engineering, agricultural, science, business, law, etc. should be offered by the educational institutions keeping an eye on the needs of the national and international job market. Government has been investing a huge amount of money since independence of the country to transform the population into human assets to reach maximum productivity of physical and nonphysical assets through

the services of those human assets. But the objective is not properly achieved due to short-term and long-term unemployment of higher education graduates, session jam, and service other than the field of expertise of the graduates. Unemployment is a common phenomenon in Bangladesh. A large part of higher education budget has been inoperative as a result of short-term and long-term unemployment, and as a result Bangladesh has been deprived of getting the services of unemployed higher educated people. On the other hand session jam consumes 11 months to 21 months extra time than the schedule time of each graduate varied among categories of universities and over the period. It has multi dimensional losses such as government and guardians are to bear an extra pressure of expenditure and students are to lose potential earnings. On the other hand the higher educated people are delayed to start their working life; ultimately the country is deprived of getting the services from those graduates for the period of session jam. Job nature has also a negative impact on utilization of budget. Technical graduates have been produced with the goal of getting their services in specialized area. But due to the requirement in recruitment and examination system, a huge number of technical higher educated people are absorbed in non technical jobs. Technical graduates consume 3 to 5 times higher budget than general graduates. When technical graduates are employed in non-technical field around 40 to 45 percent of expense should be treated as unproductive because productivity of technical graduates is not utilized properly.

Chapter Seven

CHALLENGES OF HIGHER EDUCATION BUDGET AND WAYS TO OVERCOME

CHALLENGES OF HIGHER EDUCATION BUDGET AND WAYS TO OVERCOME

This chapter unveils the challenges of higher education budget with regards to allocation, implementation and its utilization for human resource development along with other challenges to higher education in Bangladesh and the ways to overcome those challenges. There is also a brief conclusion at the end of the chapter.

7.1 Prelude

In this chapter an attempt has been made to find out the real challenges of higher education budget for human resource development in Bangladesh. The researcher has tried to find out the challenges from three sources – (i) challenges acknowledged from review of available related literature, (ii) challenges identified through analysis of secondary financial data, and (iii) challenges recognized through analysis of primary field data. An attempt has also been made to find out the ways to overcome those challenges based on suggestions emanated from literature, analytical results and opinions of the respondents. It should be mentioned here that some challenges which are indirectly related to higher education budget and or its utilization have also been documented.

7.2 Challenges of Higher Education Budget in Bangladesh

As stated earlier, challenges of higher education budget have been identified in light of allocation and implementation of budget, and its utilization for human resource development.

7.2.1 Challenges of Allocation and Implementation of Higher Education Budget

As stated earlier challenges of allocation and implementation of higher education budget have been detected through review of literature, result from analysis of secondary and primary data. The budgetary challenges have been exposed by dividing them into challenges of budget allocation and challenges of budget implementation.

7.2.1.1 Challenges of Budget Allocation

Funding from the government for higher education and research is not at all adequate (Mobasser & Muhammad, 2010) because public expenditure on education in Bangladesh was only 2.4 percent of GNP places a lower contribution among the SAARC countries (Chauhan, 2008). Inadequate budgetary provision and inappropriate utilization of the same are two major limiting factors in the way to improve education infrastructure as well as teaching and research facilities in higher academic institutions (Sarkar, Rana & Zitu, 2013). UGC has obviously failed to provide funds according to the needs of the respective university (Mobasser & Muhammad, 2010).

Consequently, public universities in Bangladesh cannot promote world class research works due to shortage of fund (Iqbal, 2011).

It is identified through the analysis of secondary financial data that in relative term the budget allocation on education and for higher education has been decreasing gradually. Public expenditure on education and higher education as percentage of GDP and government expenditure have not yet been reached the recommended level by different Education Commissions since independence of the country. It is also far below than the UNESCO standard, UNDP's benchmark, and the practices of South Asian countries. Spending for research, fellowships and scholarships is also extremely insignificant though creation & dissemination of new knowledge through research on different contemporary issues are the main objectives of higher academic institutions.

It is evident from the analysis of primary data that higher education budget is positively associated with higher education quality. It indicates that budgetary constraints are one of the main limiting factors for quality higher education in Bangladesh. Insufficient budgetary allocation is an impediment to human resource development through higher education. It is also recognized in table-B.5 (Appendix-B) that majority of the respondent faculties (about 70 percent) under the study thought that insufficient budget allocation is one of the major challenges of higher education in Bangladesh.

7.2.1.2 Challenges of Budget Implementation

It is observed from the analysis of financial data that poor governance in Bangladeshi public universities makes it possible for them to spend a notable

amount from undisclosed or unidentified or unexplained sources, which is a big challenge to budget execution and compliance of budget manual. A common phenomenon of public university budget is that the actual expenditure always exceeds the revised budget in salary & pension contingencies and in non-education contingencies whereas rate of under implementation of education contingencies is more than over implementation. It is also apparent from field survey that inappropriate implementation of higher education budget is a challenge to human resource development. Most of the respondent faculties (about 64 percent) believed that inappropriate implementation of allocated budget is one of big challenges of higher education in Bangladesh (Table-B.2 in Appendix-B).

7.2.2 Challenges of Utilization of Higher Education Budget for HRD

Challenges of utilization of higher education budget for HRD have been identified from review of literature, analysis of secondary and primary data considering the gap between expected and actual study area as well as the gap between expected job and present job. Challenges due to deviation of expected study area from expected job are stated in the following section.

7.2.2.1 Matched between Actual and Expected Study Areas

Enrollment pattern reflects interdisciplinary imbalance in favor of liberal arts and social science than pure science, agricultural science and technical areas (Islam, 2008). It is evident from literature that most of the tertiary level students have failed to take admission into their interest area.

Against this backdrop, table-7.1 demonstrates that most of students in tertiary level did not get chance to study in their expected discipline and in expected study area. Only 36.6 percent got chance to study in their expected discipline and 49.4 percent got chance in their expected study area. Remaining students did not get chance in their expected discipline and expected study area.

Table-7.1 Matched between Expected and Actual Study Area & Discipline

Category	Studied in Expected Discipline		Studied in Expected Study Area	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Yes	204	36.6	275	49.4
No	353	63.4	282	50.6
Total	**557**	**100.0**	**557**	**100.0**

Source: Analysis of primary data collected from alumnae through semi structure questionnaire

The following hypothesis can test the result of matched between expected study area and actual study area.

H_0: There is no difference between expected study area and actual study area.

H_1: There is difference between expected study area and actual study area.

Table-7.2 Matched between Expected and Actual Study Area (Chi-Square Test)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1117.624(a)	416	.000
Likelihood Ratio	883.453	416	.000
Linear-by-Linear Association	7.339	1	.007
N of Valid Cases	557		

a 445 cells (93.3%) have expected count less than 5. The minimum expected count is .00.

The observed value of Chi-square (Table-7.2) is 1117.624 with 416 df and p-value is 0.000. The test result suggests that the null hypothesis can be rejected at 1 percent level of significance. The result implies that there was no match between the expected study areas and the actual study area.

7.2.2.2 Consequences of Gap between Expected and Actual Study Area & Discipline

Consequences of unmatched admission at the tertiary level have been analyzed in light of expected study area with actual study area as well as expected discipline with actual discipline.

- **Consequences of Gap between Expected and Actual Study Discipline**

Table-7.3 demonstrates that the mean score of the students who did not get admission into their expected study discipline was 3.13 in the scale of 5.00.

Thus their interest in higher education was decreased due to the gap between their expected study discipline and actual study discipline. The following hypothesis can test the result.

H_0: Interest in higher education does not differ between expected and actual study discipline.

H_1: Interest in higher education differs between expected and actual study discipline.

Table-7.3 Consequences of Unmatched between Expected and Actual Study Discipline

	Matched between expected and actual study discipline	**N**	**Mean**	**Std. Deviation**	**t (s.e)**	**p-value**
Interest in higher education was decreased due to unmatched in interest discipline	Yes	204	2.29	1.236	-7.410 (.112)	0.000
	No	353	3.13	1.303		

Source: Analysis of primary data collected from alumnae

The calculated t-test (Table-7.3) is significant with p-value of less than 0.01. The test result suggests that the null hypothesis can be rejected at 1 percent level of significance. This result also implies that there is difference of student interest in higher education due to deviation of actual study discipline from expected study discipline.

- **Consequences of Gap between Expected and Actual Study Area**

Table-7.4 demonstrates that the mean score of the students who did not get expected study area was 3.13 in the scale of 5.00. Thus the involvement of students in higher education decreased for not getting admission into their expected study area. The following hypothesis can test the result.

H_0: Interest in higher education does not differ between expected and actual study area.

H_1: Interest in higher education differs between expected and actual study area.

Table-7.4 Consequences of Unmatched between Expected and Actual Study Area

	Matched between expected and actual study area	**N**	**Mean**	**Std. Deviation**	**t (s.e)**	**p-value**
Interest in higher education was decreased due to unmatched in interest study area	Yes	275	2.50	1.302	-5.734 (.110)	0.000
	No	282	3.13	1.303		

Source: Analysis of primary data collected from alumnae through semi structured questionnaire

The calculated t-test (Table-7.4) is significant with p-value less than 0.01. The test result suggests that the null hypothesis can be rejected at 1 percent level of significance. This result also implies that student involvement in higher education differs due to deviation of actual study area from expected study area.

7.2.2.3 Matched between Expected and Present Job

There is always a gap between education system and employment pattern in Bangladesh. Contribution from higher education is not satisfactory due to existing job pattern, requirements placed in recruitment, job advertisement and selection procedure (Alam, Khalifa & Shahjamal, 2009). Consequently, right person is not placed in right position. The unemployment of huge products of education implies that education is not effective and relevant for their absorption in appropriate jobs (Islam, 2008).

Most employees cannot get their expected job due to job crises and defective recruitment system and as such it is a matter of great concern and issue of discussion and debate in seminars, symposia, and social gathering. It is evident from the table-7.5 that 7 out of 10 (69.5 percent) higher education graduates did not get their expected job. Consequently, they could not get job satisfaction to the highest level.

Table-7.5 Matched between Expected and Present Job

Category	Get Expected Job	
	Frequency	**Percentage**
Yes	170	30.5
No	387	69.5
Total	**557**	**100.0**

Source: Self constructed from analysis of primary data collected from alumnae through questionnaire

The following hypothesis can test the above result.

H_0: There is no mismatch between expected job and present job.

H_1: There is mismatch between expected job and present job.

Table-7.6 Matched between Expected and Present Job (Chi-Square Test)

	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	251.993(a)	70	.000
Likelihood Ratio	177.099	70	.000
Linear-by-Linear Association	14.006	1	.000
N of Valid Cases	557		

a 72 cells (81.8%) have expected count less than 5. The minimum expected count is .02.

The observed value of Chi-square (Table-7.6) is 251.993 with 70 df and p-value is 0.000. The test result suggests that the null hypothesis can be rejected at 1 percent level of significance. This result implies that there was no match between expected job and the present job of the higher educated people in Bangladesh.

7.2.2.4 Consequences of Mismatch between Expected and Present Job

Overall return from tertiary education is very low because of high unemployment and employment pattern (Alam, Khalifa & Shahjamal, 2009).

Table-7.7 shows that the mean score of the employees who did not get expected jobs was 3.41 in the scale of 5.00 and their working ability has not been utilized properly due to mismatched between expected job and present job.

The following hypothesis can test the above result.

H_0: Working ability does not differ between expected job and present job.

H_1: Working ability differs between expected job and present job

Table-7.7 Consequences of Mismatch between Expected and Present Job

	Matched between expected and present job	**N**	**Mean**	**Std. Deviation**	**t (s.e)**	**p-value**
Working ability is not properly utilized due to mismatched between expected and present job	Yes	170	2.43	1.263	-8.344 (.118)	0.000
	No	386	3.41	1.291		

Source: Analysis of primary data collected from alumnae through semi structured questionnaire

The calculated t-test (Table-7.7) is significant with p-value less than 0.01. The test suggests that the null hypothesis can be rejected at 1 percent level of significance. This result also implies that there was difference in working ability and involvement due to deviation of present job from expected job.

7.2.3 Other Challenges of Higher Education in Bangladesh

A number of challenges have been identified from literature review and analysis of collected primary data from faculties and alumnae. Mentionable challenges are appended in the following section.

7.2.3.1 Higher Education Quality in Bangladesh

Quality of higher education in Bangladesh has declined steadily, in some areas quite alarmingly, over the last two decades and such fall in quality has indeed become a core concern of the government and other major stakeholders (Aminuzzaman, 2011). UGC has miserably failed to play its role as a guardian of public universities and as a promoter of quality (Chauhan, 2008). Commercialization of education is a big challenge to quality education (Rahman, 2010).

Against the above backdrop table-B.1 (Appendix-B) reveals that the majority of the respondent faculties (about 69 percent) under the study opined that higher education in Bangladesh is not standard enough to meet local demand and nearly all the faculties (about 85 percent) opined that quality of higher education cannot meet international demand as well. Similarly, about 64 percent respondents opined that higher education quality in Bangladesh is not up to the mark. They also gave mixed opinions whether higher education quality in Bangladesh is improving or declining or remaining unchanged over the period.

It is also observed in table-7.8 that the mean score of opinions of the alumnae under the study on standard of higher education in Bangladesh to fulfill local demand is 2.71 in the scale of 5.00 and mode 2.00, and to fulfill international demand is 2.22 in the scale of 5.00 and mode 2.00. The results suggest that the standard of higher education in Bangladesh is not satisfactory at all.

Table-7.8 Standard of Higher Education in Bangladesh

		Standard of higher education to fulfill local demand	Standard of higher education to fulfill international demand
N	Valid	557	557
	Missing	0	0
Mean		2.71	2.22
Mode		2	2

Source: Analysis of primary data collected from alumnae through semi structure questionnaire

7.2.3.2 Teaching Aids and Other Facilities

Insufficiency of teaching aids, library facilities, books and journals, research and laboratory facilities are the main challenges of quality higher education in public universities of Bangladesh (Sarkar, Rana & Zitu, 2013).

Against the backdrop, it is observed from table-B.5 (Appendix-B) that there are some challenges associated with teaching and other facilities. Respondent faculties believed that lack of infrastructural facilities (49.9 percent), limited library facilities (38.1 percent), and limited libratory facilities (38.1 percent) are among the challenges of higher education in Bangladesh.

7.2.3.3 Government Initiative and Plan

Problems of HRD through educational institutes in Bangladesh have been originated mainly due to lack of government initiative, infrastructure, useful arrangement, quality, coordination, investment, trained instructors, facilities, communication, and improper licensing (Shamsuddoha, Quadir & Kabir, n.d.).

In this context, the responses of the faculties in table-B.5 (Appendix-B) confirm that lack of proper planning (about 70 percent), lack of proper implementation of plan (46 percent) and nonuse of appropriate steps by the government (19 percent) are also in the challenges to higher education in Bangladesh.

7.2.3.4 Political Impediments

The responses of the faculties in table-B.5 (Appendix-B) also demonstrate that the influence of slavish national politics in higher educational institutions (about 91 percent) and reflection of political identity while recruiting faculties (about 80 percent) over academic qualifications and competence are two major political hindrances for higher education in Bangladesh. Besides, they also spoke against the consideration of political identity for promotion of faculties in higher position (42.9 percent), posting (58.7 percent) and recruitments in all levels (46.0 percent) in public universities. Similarly, about half of the respondent faculties opined that the influence of political activates such as *hortal*, strike, unscheduled vacation,

etc in higher educational institutions of Bangladesh are direct external political challenges.

7.2.3.5 Malpractices of Autonomy of Public Universities

It is evident from table-B.5 (Appendix-B) that 46.0 percent faculties under the study believed that malpractices of autonomy in public universities is also a challenge to higher education in Bangladesh, because this lead to slavish political activities in higher educational institutions especially in public universities.

7.2.3.6 Salary Structure of Faculties

Poor salary structure of university faculties in Bangladesh is one of the reasons for dissatisfaction in their jobs (John, 2011). Against this background, table-B.5 (Appendix-B) discloses that 84.1 percent faculties under the study alleged that unattractive salary structure of public university faculties is a major challenge to higher education in Bangladesh because job satisfaction mostly depends on financial benefits and productivity usually depends on job satisfaction.

7.3 Ways to Overcome the Challenges of Higher Education Budget

As stated earlier there are many challenges of higher education in Bangladesh. Most of those are directly related to finance and some are indirectly related to finance. This section discloses the ways to overcome the challenges of allocation, implementation, and utilization of higher education budget as well as other non financial challenges.

7.3.1 Ways to Overcome Budgetary Challenges

The ways to overcome budgetary challenges are recommended considering the propositions in literature and analytical results of financial data & opinions of the selected respondents. Thus this section includes ways to overcome the challenges of allocation and implementation of higher education budget as well as the challenges of financing higher education in Bangladesh.

7.3.1.1 Allocation of Budget

The government of Bangladesh should devote more funds to education in order to defeat high degree of underdevelopment (Chauhan, 2008). In this situation table-B.9 (Appendix-B) shows that about 70 percent of the respondent faculties thought that budgetary allocation for higher education in Bangladesh need to be increased for developing and ensuring essential facilities for quality higher education.

7.3.1.2 Implementation of Budget

It is evident from table-B.9 (Appendix-B) that about 80 percent respondent faculties stressed on proper implementation of allocated budget for higher education in Bangladesh. Malpractices in budget implementation should be stopped.

7.3.1.3 Financing for Higher Education

Funding higher education in perpetuity, the government may collect fund through imposing a mandatory payroll tax equivalent to 0.5 percent of the salary on all graduate employees (Rizvi, 2009). Saving budget from non-required higher education should be invested on vocational education and training (VET) programs (Alam, Khalifa & Shahjamal, 2009).

There is a need for extra money to augment budgetary provision for higher education and to meet this extra pressure on budget and as such there is also a need to find out diversified sources of finance. The sources of finance can be classified into two segments namely main sources of finance and other sources of finance.

7.3.1.3.1 Main Sources of Finance

It is evident from table-7.9 that the mean score of opinions of the alumnae for the option of fully financed by government is 3.81 and mode is 4.00 in the scale of 5.00. As against this, the mean score of tuition fees of students be the main source of finance is 2.33 and mode is 1.00 in the scale of 5.00. The statistical results suggest that government should be the main source of finance for higher education in Bangladesh. It is also evident from table-B.4 (Appendix-B) that the respondent faculties (about 86 percent) opined that the government should provide total fund for higher education in Bangladesh, but around one fifth faculties opined that tuition fees should be the major source of finance for higher education. It should be mentioned here that some of the respondents suggest combination of government fund

and tuition fees should be the sources of fund for higher education. A small number of respondents suggest that the existing tuition fees and other fees need to be increased significantly and time and again. It is worthy to be mentioned here that some education policy planners want to enhance university income from tuition fees and other fees. But in reality, it is not easy to fulfill budget deficit of public universities through rising tuition fees and other charges on students. Moreover, if tuition and other fees are increased then talented but poor students may not get access to higher education as scholarships and fellowships are almost absent in public universities of Bangladesh.

Table-7.9 Finance from Government and or Tuition Fees

Category	Fully Financed by Government	Fully Financed from Tuition Fees
Mean Score	3.81	2.33
Mode	4	1

Source: Analysis of primary data collected from alumnae through semi structured questionnaire

7.3.1.3.2 Other Sources of Finance

Different potential sources of higher education financing come into light from the opinions of different groups of respondents collected through semi-structured questionnaire. In that case respondents were free to choose one or more options as well as to write their opinions freely. Table-7.10

reveals that 78.1 percent alumnae and 74.6 percent faculties emphasized on building relationship with scholarship providers at home and in abroad, 66.6 percent alumnae and 36.5 percent faculties opted for introducing student loan, and 44.7 percent alumnae and 65.1 percent faculties thought that involvement of professors in consultancy, research project, research grant, etc. could be the source of finance for higher education. The respondents of the study proposed for some other sources to finance higher education but gave less emphasis on those than the earlier mentioned sources. Other sources include imposing special education tax on the alumnae, private employers and people of high income bracket, financing through public private partnership (PPP), initiating profit oriented economic projects, introducing evening shift with private finance and introducing double shifts, research contract with industries for mutual welfare, collaborative research with foreign research institutes and universities, collection of donation from alumnae and upper classes, etc.

Table-7.10 Other Sources of Finance for Higher Education

Sources	Alumnae		Faculty	
	Frequen	Percenta	Frequen	Percenta
Special education tax on alumnae	29	5.2	3	4.8
Special education tax on private employers	102	18.3	-	-
Imposing education tax on people of high income bracket	-	-	22	34.9
Financing through public private partnership (PPP)			29	46.0
Introduce loan for students	371	66.6	23	36.5
Involve professors in consultancy, research project, research grant, etc.	249	44.7	41	65.1
Strengthening relationship with scholarship providers at home and in abroad	435	78.1	47	74.6
Initiate profit oriented economic projects	217	39.0	11	17.5
Introduce evening shift with private finance	143	25.7	15	23.8
Introduce double shift	-	-	15	23.8
Other	60	10.8	-	-

Source: Analysis of primary data collected from alumnae and faculties through semi structured questionnaire

7.3.1.4 Budget for Research and Development

Iqbal (2011) in *Prothom Alo* proposed that the Government of Bangladesh should launch fellowship of at least Taka 15,000 per month instead of existing amount of Taka 2000 to Taka 5000. Table-7.11 shows that the mean score of alumnae opinions on increasing budget for research and development is 4.51 and mode is 5.00 in the scale of 5.00. Similarly, 95.2 percent (Table-B.2 in Appendix-B) respondent faculties were agreed with the proposal. Based on literature and statistical result it can be concluded that budget for research and development need to be increased to the required level considering the practices of underdeveloped and developing countries, not to talk of developed counties.

Table-7.11 Need to Increase Budget for Research and Development

Alumnae		**Faculty**		
Category	**Score**	**Category**	**Frequency**	**Percent**
Mean score	4.51	Yes	60	95.2
Mode	5 (62.3 percent)	No	3	4.8
		Total	63	100

Source: Analysis of primary data collected through semi structured questionnaire

7.3.2 Ways to Overcome Challenges of Budget Utilization

Different initiatives to encounter the challenges of budget utilization should be taken by the university authority, job providers, and government and opposition party. Those are stated below.

7.3.2.1 Session Jam

It is evident from table-B.9 (Appendix-B) that 54 percent of the respondent faculties proposed to take different steps such as preparation and implementation of academic calendar and complete classes and examinations following that academic calendar. While 58.7 percent of them opined that educational institutions should be made free from bad politics (*hortal*, strike, etc) and poor academic culture to eliminate session jam.

7.3.2.2 Job Nature

As stated earlier in chapter-7 that alumnae (mean score 4.54 in the scale of 5.00) and faculties (90.5 percent) strongly recommended the need for employment of technical graduates (doctor, engineer, agronomist, etc.) in their own fields, because this could lead to increase the productivity of the graduates as well as to prevent misuse of public fund.

7.3.3 Ways to Overcome Other Challenges

7.3.3.1 Increase Teaching Aids and Other Facilities

It is evident from table-B.9 (Appendix-B) that 52.4 percent of respondent faculties opined in favor of creating necessary infrastructure facilities, 54 percent were in favor of developing online library facilities with traditional library

facilities and 34.9 percent felt the necessity of updating laboratory facilities to overcome the challenges of higher education in Bangladesh. To develop of those facilities extra financial pressure need to be borne by the government and as such allocation for higher education budget should be increased.

7.3.3.2 Government Initiative and Plan

Business in education must be stopped through government intervention (Rahman, 2010). But the table-B.9 (Appendix-B) reveals that only 20.6 percent faculties under the study opted for the need to take necessary steps by the government, 68.3 percent opted for the preparation of short and long term plans and 58.7 percent stressed on assurance of proper implementation of plans to overcome the challenges of higher education in Bangladesh.

7.3.3.3 Political Impediments

It is evident from table-B.9 (Appendix-B) that 77.8 percent faculties under the study recommended for making higher educational institutions free from slavish national politics, 69.8 percent emphasized on the need for considering academic qualifications and competence instead of political identity while recruiting faculties, 54.0 percent stressed on the need for considering qualification and efficiency while giving additional charges to any faculty, 61.9 percent stressed on the need to make all recruitments both academic and nonacademic free from dirty politics and 58.7 percent opined that higher educational institutions should be free from all political agenda (*hortal*, strike, etc) in order to overcome those political challenges of higher education in Bangladesh.

7.3.3.4 Fair Practices of Autonomy of Public University

Table-B.9 (Appendix-B) indicates that 57.1 percent respondent faculties acknowledged the need for ensuring proper practices of autonomy of public universities to overcome the challenges of higher education arising from the autonomy of public universities in Bangladesh. Malpractices of autonomy usually lead to slavish political activities in higher educational institutions especially in public universities and as such autonomy should be used with proper accountability.

7.3.3.5 Salary Structure of Faculties

Teaching must be made highest attractive profession through separate and attractive pay structure so that persons with high academic caliber and excellent research background come to this profession (Rahman, 2010).

It is evident from table-B.9 (Appendix-B) that 76.2 percent faculties recommended for implementing attractive salary structure for university faculties so that they can improve their standard of living and attain high level of job satisfaction. These may lead to high productivity and achievements that is more involvement in teaching, research and other works.

7.3.3.6 Evaluation of Merit and Quality

The job market must be functional on the basis of merit and quality of candidates and free from all types of corruption, nepotism and malpractices. Employment, posting and promotion must be kept away from politics and favoritism, quality and quality should be the only decisive factor. Faculties

should be evaluated on the basis of quality, research and publications (Rahman, 2010).

Against this backdrop, table-B.9 (Appendix-B) discloses that 54.0 percent of the respondent faculties were in favor of teaching competence with service duration for promotion of faculties and 61.9 percent felt the need to consider the quality of journal(s) with number of article(s) at the time of promotion of any faculty. While 58.7 percent stressed on recruitment of competent faculties, 68.3 percent proposed for training of faculties at home and in abroad. To promote quality research 68.3 percent agreed on establishing connection with business and industry and 47.6 percent proposed to increase research incentive through increasing financial and non-financial facilities.

7.4 Conclusion

It can be concluded that inadequate budgetary allocation, inappropriate implementation and unproductive utilization of the same due to session jam, unemployment, unmatched between expected and actual study area, study discipline and job, slavish nation politics leading to malpractices of public university autonomy, lack of proper plan and its inappropriate implementation are the main budgetary challenges of higher education in Bangladesh. Moreover, importance of political identity over merit and less priority on quality research while recruiting academic and nonacademic staff, promoting them to higher position and assigning them additional responsibilities are some indirect challenges of higher education budget in Bangladesh.

Thus sufficient allocation and appropriate implementation of higher education budget, and its proper utilization for human resource development should be ensured to keep pace with the academic standard and human resource development of the fast-growing developing nations and to face the challenges of the new millennium due to globalization of higher education and job market. Budgetary allocation need to be increased considering recommendations of different education commissions, practices of South Asian and some other rapid growing developing countries and at the same time ensure proper implementation of allocated budget following budget manual. More importance should be given on productive utilization of budget through reducing session jam, unemployment, and shifting of technical graduates in non-technical jobs. Merit and quality should be the only criteria for appointment, promotion and posting of academic and nonacademic staff in higher educational institutions. Government funding instead of tuition fees should be the main source of higher education finance. In addition to government funding some other auxiliary sources such as build up relationship with scholarship providers at home and in abroad, engage professors in research project, research grant etc., introduce student loan, imposing special education tax on alumnae, private employers, and people of high income bracket, academic and research collaboration with industries and foreign universities may be taken into consideration. Time is ripe now to address all the direct and indirect challenges of high education budget in Bangladesh.

Chapter Eight

SUMMARY OF FINDINGS AND RECOMMENDATIONS

SUMMARY OF FINDINGS AND RECOMMENDATIONS

8.1 Prelude

Education is a fundamental right to the people of a country. Education is considered as a harmonious development of mind, body and soul. It is a mental and intellectual training which provides opportunities for growth and helps meet the challenges and generate ways to overcome obstacles to progress. It also develops morals and ethical values in an individual. Considering the importance of education, the government of the People's Republic of Bangladesh has given top most priority on education since independence in 1971. To date a notable developments in the education sector have achieved but far away from the desired goal.

Higher education is considered as a powerful instrument of human resource development. Bangladesh as a densely populated developing country has ample opportunities to develop her citizens into human assets. Higher education transforms people into human resource in different specialized fields such as medical, engineering, agriculture, science, technology, business, social science, arts, law, education, religion, sports, etc. emphasizing on the requirements of the country and opportunities in the global job market. It is also treated as an instrument for socio-economic development of an individual, a society and a country. And as such there is a

need for huge investment in higher education to transform a country's population into human assets. In this era of globalization, cost of higher education is considered as an investment in human asset. Prior researches testimony that returns on human capital is more than physical capital because depreciation is applicable for physical resources whereas human resource is appreciated through training and skills development.

Investment in education especially in higher education in Bangladesh is very low considering the recommendations of different education commissions (only half of the suggested norm), practices of South Asian and other developing countries, even below than the least developed countries. More revealing is that the cost of education in Bangladesh is very low in the world due to low investment in education. Higher education especially public universities in Bangladesh are highly dependent on government fund. Around 90 percent of revenue budget of public universities is funded by the government and the remaining 10 percent is from their own income such as tuition fee, examination fee, etc. The most problematic area is the allocation of budget in different heads of expenditure. The major part of the budget (about three fourths) is spent for salaries and pension of academic and non-academic staff, whereas a negligible part (about one tenth) is spent for education contingencies. It should be mentioned here that maximum amount of education contingencies is spent for examination related expenses (about three fourths) while expenses for libraries, laboratories, research, and scholarship are the less prioritized subsectors under education contingency. Even below 4 percent of total revenue budget is allocated to these subheads

of education contingency, but these expenditures are directly related to the development of education quality. Quality researches are not increasing due to low budgetary support for research, fellowship and scholarship in one hand and on the other hand, faculties of public universities are rarely involved in research due to lack of incentive for quality research and publications. Moreover, public university job is highly secured and there is no compulsion for research and publications once junior faculties become professor. Again only a minimum required number of publications are needed for getting promotion instead of quality of papers and ranking of journals. Most of the public university faculties in Bangladesh published papers in low ranking journals having no or poor impact factor.

Higher education quality is a great concern to the stakeholders and to the progressive segment of the society and also to the government of Bangladesh. Literature and analytical results indicate that higher education quality in Bangladesh is not standard enough to fulfill the demands of the domestic and international job markets. Low budgetary allocation for higher education leads to low quality higher education and consequently, number of unemployed higher educated people is increasing gradually. Universities are established to attain two main objectives- to generate new knowledge through research and disseminate the produced knowledge through teaching to the students. Most of the public universities in Bangladesh are involved in teaching only, not in research though research is the most important spelt out objective of higher academic institutions.

Higher education in Bangladesh inherited British colonial education system. The objective of the British colonial government was to produce a group of people who could assist them through providing clerical support. There was no philosophical aspect of transforming people of this part into human assets. After separation of Indian Subcontinent into Pakistan and India in 1947 the present Bangladesh was placed under Pakistan rule. No mentionable initiatives were taken by the then Pakistan government to reform education system especially higher education system of the country. After independence of Bangladesh in 1971, a good number of education commissions and committees were formed and those commissions and committees offered a lot of recommendations to reform all levels of education. But in reality none of recommendations regarding higher education reforms has yet been implemented properly due to political instability, lack of interest of the political government, and or budgetary constraints.

Dhaka University, the first and only University in the then *East Bengal* (now Bangladesh), was established in 1921 followed by Rajshahi University in 1953 as the second university. At the time of independence of Bangladesh there were only 6 universities in Bangladesh and all were in the public sector. At present there are 114 universities in Bangladesh of which 34 are public, 2 are international and the rest 78 are in the private sector. In 2012, only 14.27 percent of tertiary level students were enrolled in private universities whereas 85.73 percent were in public universities and their affiliated colleges and madrasah.

This study is on budgetary provision for higher education in Bangladesh with special emphasis on allocation, implementation and utilization of the same for human resource development. The main objectives of the study are to analyze budget on education and specially higher education in light of local, regional and global benchmarks, evaluate higher education budget considering session jam in higher educational institutions, unemployment and employment nature of higher educated people as independent variables and utilization of higher education budget (productive or unproductive) as dependent variable. Another objective of the study is to find out the challenges of higher education budget for human resource development and ways to overcome of those challenges. The study is a mixed method research based on both qualitative and quantitative data collected from secondary and primary sources. Secondary sources of data was collected from different publications of UGC, BBS, BANBEIS, BPSC, UNESCO, UNDP, journal articles, print media, relevant website, etc. Primary data was collected from 557 alumnae of public universities employed in the job required non-technical educational entry qualification and 63 faculties of four categories of universities such as general, agricultural, engineering and science & technology in public sector. Collected data was checked, edited, coded, tabulated, processed, summarized and analyzed in a systematic way using MS Excel and SPSS version 15. Financial data was converted into present value using consumer price index of BBS. Descriptive statistics such as frequency, mean, mode, standard deviation, coefficient of variation, range, minima, and maxima were used. Inferential statistics such as Chi-square test, sample mean t-test, and ANOVA were also used. Some diagrams and charts were also used to make the situation easily understandable to the readers.

8.2 Summary of Findings

The mentionable findings emanated from the analysis and interpretation of empirical results suggest that in relative term, the trends of revenue budget allocation on education and UGC grants to public university budget (percentage) in Bangladesh have been decreasing gradually. But the trend of national revenue budget has been increasing very rapidly over the study period than the revenue budget on education. The share of GDP and government expenditure on higher education is even far below than the recommendations of different education commissions of Bangladesh. It is also far below than the UNESCO standard, UNDP's benchmark and practices of South Asian countries though the study results indicate that there is a positive relationship between higher education budget and higher education quality. It should be mentioned here that Government grant to the University Grants Commission of Bangladesh was always less than the demand of the UGC during the whole period of review. The education budget scenario of Bangladesh is frustrating in terms of real value. In real value per student yearly expenditure had a decreasing trend and per student yearly expenditure was surprisingly dissimilar in different categories of universities during the period of study. In technical universities especially medical, agricultural, and professional universities, per student yearly expenditure was 3 to 5 times higher than general, engineering, and science and technology universities. More revealing is that actual expenditure exceeded the revised budget of public universities in most of the years under the study. Consequently, public universities in Bangladesh have been

spending a notable amount from undisclosed or unidentified or unexplained sources, which suggest lack of transparency in budget execution and noncompliance of budget manual. Most of the years under the study, actual expenditure exceeded the revised budget in salary & pension as well as non-education contingencies while the results were reverse in education contingencies. In education contingencies, rate of under implementation was more than over implementation. This situation suggests that the public universities in Bangladesh have miserably failed to give any special importance or attention to education contingencies. More discouraging is that on an average, 70 percent of the revenue budget was used for salaries and pensions as against around 12 percent for education contingencies and remaining 18 percent for general, repair and procurement contingencies. It should be mentioned here that more than 75 percent of the education contingencies was spent for examination related expenses such as printing of exam documents, honorarium and TA/DA of the internal and external examiners and examination committee members, while expenses for libraries, laboratories, research, and scholarship were less prioritized subsectors under education contingency. Less than 4 percent of total revenue budget was allocated to these subsectors of education contingency, which are directly related to the development of education quality. Thus library, lab, research, fellowships and scholarships are getting less importance in the revenue budget of public universities in Bangladesh. A negligible amount (0.07 to 0.4 percent) of total revenue budget was spent for research, fellowships and scholarships though creation & dissemination of new

knowledge through research are the main objectives of higher academic institutions. Almost all the respondent faculties opined that budget allocation for research and development was insufficient. Considering the reality, they recommended for augmenting budget allocation for public universities and especially for research and development. They also agreed that insufficient budgetary allocation and inappropriate implementation of the same are the hindrances to HRD through higher education in Bangladesh.

Empirical results also demonstrate that human resource development scenario in Bangladesh is in a very poor shape. With regard to Human Development Index (HDI), Bangladesh occupied 6th position out of nine South Asian countries though the HDI value of Bangladesh has a gradual increasing trend over the period. The HDI value increased to 1.7 times in 2012 from 1980, but was lower than South Asian and World average and only a little better than least developed countries. Bangladesh acquired 146th position among 187 countries, laying in the low human development group. Bangladesh adult literacy rate was lower than the average of least developed countries and South Asian countries, not to talk of World average. As regards gross enrolment rate at the tertiary level of education, Bangladesh has occupied the fourth position in South Asian countries. There is a high positive correlation between national education budget and HDI value.

Unemployment is a common phenomenon in Bangladesh. Every year, a large part of higher education budget becomes inoperative as a result of short-term and long-term unemployment, and for this Bangladesh has been deprived of getting the services of unemployed higher educated people. It is evident from

statistical analysis that session jam consumed about 11 to 21 months extra time than the schedule time of each graduate varied among categories of universities from year to year. It has multi dimensional losses such as government and guardians are to bear an extra pressure of expenditure and students are to lose potential earnings. On the other hand the higher educated people are delayed to start their working life; ultimately country is deprived of getting the services from those graduates for the period of session jam. Job nature has also some negative impacts on utilization of budget. Technical graduates have been produced with the goal of getting services in specialized area. But due to the requirement in recruitment and examination system, a huge number of technical higher educated people are absorbed in non-technical job. Statistical analysis revealed that technical graduates consumed 3 to 5 times of higher cost than general graduates during the period of review. When technical graduates are working in non-technical field around 40 to 45 percent of expense should be treated as unproductive because productivity of technical graduate is not utilized properly. Promotion prospect, prestigious job and working environment were more influencing factors as against salary structure, non-financial benefits, exertion of power while selecting the present job of the alumnae. The alumnae agreed that higher education helps get the job (mean score 3.62 out of 5.00) but they disagreed on the issue that knowledge of higher education was directly used in their present job (mean score 2.76 out of 5.00) and their jobs were directly related to higher education (mean score 2.27 out of 5.00). Overall job satisfaction of alumnae on their

present job was low (mean score 3.38 out of 5.00). All of these indicate that productivity of the higher educated people was not at all satisfactory.

Insufficient budget for higher education and inappropriate utilization of the same are two major challenges for higher education in Bangladesh. Slavish national politics in higher educational institutions, limitation of teaching aids and others facilities, over recruitment than the advertised and approved posts, giving emphasis on political identity over merit while recruiting and promoting faculties in higher position and assigning different positions, lack of proper planning and proper implementation of plans, malpractices of university autonomy are also some remarkable indirect challenges to higher education budget in Bangladesh. There are gap between actual and expected study area as well as actual and expected study discipline. Study results indicate that only one-third of higher educated people got chance to study in their expected discipline and one-half got chance in their expected study area. Remaining students did not get chance in their expected discipline and expected study area. Consequently, interest in higher education was decreased due to unmatched between interest study area and actual study area as well as interest study discipline and actual study discipline. Similarly, about 70 percent of higher educated graduates did not get their expected non-technical job. Consequently their working ability has not been utilized properly due to mismatched between expected job and present job. The study results also suggest that the standard of higher education in Bangladesh is not satisfactory at all. To overcome budgetary challenges for human resource development in Bangladesh a lot of options come into light

such as increasing budgetary allocation through financing from some other sources in addition to funding from government and tuition fee. Other sources as identified by the respondents are introducing student loan, strengthening relationship with scholarship providers at home and in abroad, engaging professors in consultancy, research project, research grants, introducing evening shift with private finance and introducing double shift for more use of existing facilities, research contract with industries for mutual benefit, collaborative research with foreign research institutes and universities, collection of donation from alumnae and people of high income bracket. Appropriate utilization of higher education budget for human resource development through minimizing session jam, unemployment, and providing jobs in related study discipline or study area are also very important. Different steps such as preparation and implementation of academic calendar, complete classes and examinations following that academic calendar to be introduced, and educational institutions should be made free from bad politics (*hortal*, strike, etc) and poor academic culture to eliminate session jam. To overcome budgetary challenges of higher education, different initiatives should be taken by the government and public universities such as preparation of short and long term plan and their proper implementation, eliminate slavish national politics from higher educational institutions, fair practices of public university autonomy, evaluation of merit and quality, last but not least implementing attractive salary structure for university faculties.

8.3 Recommendations

8.3.1 Specific Recommendations

It is indeed a hard job to suggest remedial measures in any research study considering the practical applicability of those recommendations. On the basis of analytical results, review of related literature, related issues addressed in print and electronic media, formal and informal intellectual discussions of different groups of people on higher education financing and related issues the researcher has identified a few measures to improve the present scenario of higher education budgeting, its implementation, and utilization for human resource development in Bangladesh. It should be mentioned here that the development of higher education without giving due importance to other levels of education is quite impossible and meaningless. Recognizing the research outputs in the context of overall socio-economic, cultural, political and educational setting of Bangladesh a few recommendations are stated below.

1. Budgetary allocation for higher education need to be increased gradually considering the recommendations of different education commissions of Bangladesh, UNDP and UNESCO guidelines, and practices of South Asian countries. Special attention need to be given on the policies and practices of higher education financing in Bangladesh in light of the policies and practices of the fast-growing developing countries such as Korea, Malaysia, and India.

2. Apposite and fair distribution of higher education budget into different heads of expenditure should be assured, now which is totally absent in public university budget in Bangladesh. Salaries and pension is the major head of expenditure (about 70 percent), while education contingency is a less important head of expenditure (around 12 percent) in public university budget in Bangladesh. Moreover, major part of the education contingency is consumed by exam related expenses instead of teaching aid, research, scholarship, laboratory, and library. The scenario should be reversed and allocation should be more in education contingency emphasizing on teaching learning aids and research.

3. Allocated budget should be implemented properly following budget manual. Diversion of fund from one head to another head is a common occurrence of public university budget, which should be discouraged and stopped for eliminating malpractice and misuse of money.

4. Budget for research, fellowship and scholarship need to be increased to a rationale level and assured proper utilization of the same for quality research.

5. Surplus recruitments than the advertised and or approved post have been creating pressure on higher education budget of public universities in Bangladesh. Thus employment beyond the advertised and or approved post should be discouraged and stopped to avoid budget deficit and budget diversion.

6. Excess expenditure over revised budget is also a common feature of our public university budget, which should be discoursed and stopped for ensuring transparency of budget implementation.

7. Different alternative sources should be taken into consideration in addition to government support and tuition fees for financing higher education. Public universities should try to build up linkage with scholarship providers at home and in abroad, involve faculties in consultancy, research projects, and mobilizing grants, establish research collaboration with industries and foreign educational institutions. Special fund for higher education can be created through imposing special education tax on people of high income bracket, private job providers, alumnae and also introduce payroll tax of 0.1 to 0.25 percent on basic salary of alumnae, etc.

8. More attention should be given to enhance the rate of productive utilization of higher education budget through different initiatives such as minimizing session jam at zero level through stringent use of academic calendar and make the educational institutions free from different internal and external politics and poor academic culture. Reduce the rate of unemployment at zero level through creating more job opportunities both in public and private sectors and encouraging self employment as well as reducing the time-span of the recruitment process. In order to minimize disparity of job opportunities with study area, different initiatives should be taken from different sectors. The government should formulate short-term and long-term manpower planning considering the future manpower

needs in different fields of expertise in light of employment opportunities at home and in abroad. Different initiatives should be taken by pre-tertiary levels academic institutions such as creating awareness on problems and prospects of different higher study disciplines and study areas, projecting job opportunities in different fields of study, and highlighting benefits and drawbacks in different jobs.

9. Attractive salary structure for university faculties should be offered to attract meritorious candidates as well as increase the productivity of the faculties through motivation.

10. Higher educational institutions especially public universities should be made free from all sorts of political influence and assure proper practices of autonomy. Autonomy should be commensurate with accountability.

8.3.2 General Recommendations

In the section some general recommendations have been offered taking into consideration of the messages from the print and electronic media, scholarly informal discussion and own judgment of the researcher. The recommendations are appended below.

Admission in Higher Education

It is evident from literature and analytical result of opinion survey of the alumnae that most of the tertiary level students do not get admission into their expected study area and study discipline. Consequently, their interest in higher education is decreased due to the gap between their expected study

area and actual study area as well as expected study discipline and actual study discipline. To overcome this problem a new admission system can be introduced jointly by the appropriate authorities such as MOE, UGC and Public universities.

i. There should be only one admission test for fist year intake of all public universities except National University and Bangladesh Open University.

ii. The application for admission test must be sent through online.

iii. Detailed information need to be provided in the application form in addition to personal information and educational background, such as (a) expected study areas in sequence; (b) expected study disciplines in sequence; (c) preference of universities in sequence; (d) desired examination centres in sequence, etc.

iv. Questions of admission test should be divided into two parts. Part one should be compulsory for all groups of students. In part two there should be different sets of questions from different study areas and each group of students will answer from a particular set of questions.

v. Pattern of the admission test questions should be to evaluate the depth of knowledge instead of stock of knowledge of the examinees.

vi. Total score of admission test should be prepared combining the marks obtained in the admission test and points of SSC and HSC or equivalent examination.

vii. Merit list should be prepared based on the score of admission test considering the sequence of the expected study areas, expected disciplines and preference of universities. The consideration should be on the basis of study area followed by study disciple and expected university in that order. It should be mentioned here that specific requirement for admission in specific university and its study area and study discipline will be applicable in the admission test. A candidate will not be able to apply through online until and unless he fulfills general and specific requirements.

Minimize Unemployment Problem

The government can take the following initiatives to minimize unemployment problem to a great extend:

i. Arrange training programs connected with the study area of the higher education graduates for their self-employment. After successfully completion of the training program, participants will be eligible to get soft loan with flexible conditions and low rate of interest or no interest.

ii. Establish rural based small and cottage industries to reduce overall unemployment.

iii. Export higher education graduate abroad as skilled manpower through proper initiatives to reduce temporary unemployment and to increase inflow of foreign currency in the economy.

Minimize Shifting of Technical Graduate

Shifting of technical graduates into non-technical jobs can be reduced through the following initiatives.

i. More incentives should be given when technical graduates employed in technical job than non-technical job.

ii. Discrimination of promotion prospects and others benefits between non-technical job and technical job need to be eliminated.

iii. Create more employment opportunities at home and in abroad for technical graduates emphasizing on the relevance of higher education.

Financing Higher Education

Different initiatives can be taken by the government to overcome the shortage of financial resources and facilities. Those are as follows:

i. Create a Higher Education Fund (HEF) and total expenditure for higher education should be borne by this fund and all income from higher education should be deposited in the fund. Initially government will provide total money required for the fund, but contribution of the government should be decreased gradually.

ii. After launching the fund, it will be operated from the contribution of different stakeholders such as government grant, student tuition fees, own income of higher educational institutions, donation, tax income, etc.

iii. Every year government should contribute between 0.75 percent and 0.90 percent of GDP or 3.00 percent and 3.50 percent of government expenditure in the fund.

iv. All income of higher educational institutions such as tuition fees, seat rent, and others should be deposited in the fund.

v. Introduce loan facilities for the poor but meritorious students at lower rate than the market rate of interest. After getting employment, the students will repay the loan taken by them earlier from HEF with interest on installment basis.

vi. The fund can be enriched through imposing special education tax on alumnae, on private employers, business and industries, high income people, etc.

8.4 Conclusion

It can be concluded that insufficient budgetary allocation and inefficient implementation are two root causes of low quality higher education in Bangladesh. Budget for research, fellowship, scholarship, and teaching aid occupy a negligible portion of total university budget, while salary and pension alone occupied, on an average, about three fourths of the total budget, which is a red flag for public university budgeting in Bangladesh. There are hardly any alternative sources available to finance public universities in Bangladesh other than government support and tuition fees. Moreover, alternative sources are not easy to avail in Bangladesh. Consequently, public universities usually slash costs other than salaries and pensions which creates impediment to quality higher education as there is a positive relationship between standard of higher education and higher education budget. If we look into the existing scenario of human resource development in Bangladesh, we will be discouraged to see that Bangladesh jointly occupied 6^{th} position with Pakistan in HDI out of nine South Asian countries and 146^{th} position among 187 countries in 2012. There is a high positive correlation (0.919) between

national education budget and HDI value during the period of review. This situation signifies that if the education budget is increased then the HDI value will also be increased and vice versa.

Unemployment of higher educated people, employment of technical graduates in non-technical job and session jam in higher educational institutions consume a large part of higher education budget. Low budgetary allocation, poor implementation, and unproductive utilization, weak academic culture, influence of slavish national politics in higher educational institutions along with session jam, mismatch between expected and actual study discipline and study area, expected job and actual job, and exploitation of public university autonomy are the main challenges of higher education budget for human resource development in Bangladesh. A large part of higher education budget is used in unproductive means due to session jam in higher educational institutions, unemployment of graduates and job nature of higher educated people in Bangladesh, which is upsetting the productivity of higher education budget in Bangladesh. In this context, it is high time for our policy planners to think for transforming our human burden into human assets through providing adequate finance and other necessary support to our higher academic institutions as also to formulate policies for productive allocation, implementation and utilization of higher education budget. In practice nothing will work if and only if all the stakeholders are motivated enough and step forward to conquer the bottlenecks and challenges of higher education budget in Bangladesh.

8.5 Direction for Further Research

Education is an unending process where new knowledge is added regularly with existing stock of knowledge. Research in new field produce some new knowledge and add to the existing stock of knowledge. Research in the field of education budgeting and or education financing is comparatively a new dimension in Bangladesh and it is expected that the present study would enrich the existing stock of knowledge in the area of education budgeting especially higher education budgeting. The study discover a new avenue of research in education budgeting and or education financing in higher education focused on public university budget, but could not cover every aspects in the field. Researches can be conducted to measure the impact of research and development budget on higher education quality, budget scenario of education contingencies and its impact on higher education quality, impact of over recruitment of faculties and non-academic staff on higher education budget, comparative study between budget of oldest universities and newly established universities, impact of public university budget on higher education quality, etc. There are some other unexplored areas of research in education budgeting and or education financing in different areas or levels of education. So research can be conducted by the future researchers on education financing and or education budgeting in other segments of education such as primary education, secondary education, higher secondary education, madrasah education, technical and vocational education, National University and its affiliated colleges, private university, etc.

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Appendix

Appendix-A

Table-A.1 National and Education (Revenue and Development) Budget, UGC Grants, Universities Own Income, Revised Budget, Actual Expenses, and Head-Wise Actual Expenses (In Constant Million Taka)

Fiscal Year	National Revenue Budget (,000)	National Development Budget (,000)	Revenue Budget on Education (,000)	Development Budget on Education (,000)	UGC's Grants (,000)	Universities Own Income (,000)	Universities Revised Budget (,000)	Universities Actual Expenses (,000)	Research, Fellowship & Scholarship	Actual Expenses of Salary and Pension (,000)	Actual Expenses of Education Contingencies (,000)	Actual Expenses of General and Others (,000)
2000-01	196.3	175.0	36.0	22.5	2.87	.26	3.13	3.32	3.2	2.38	.42	.53
2001-02	207.2	165.8	37.4	21.4	2.89	.29	3.18	3.37	2.9	2.42	.41	.53
2002-03	243.2	176.5	39.6	25.4	3.2	.31	3.53	3.58	3.0	2.52	.47	.59
2003-04	315.2	195.9	44.8	22.8	3.66	.41	4.07	4.14	4.3	2.84	.50	.80
2004-05	368.2	210.9	50.8	20.5	4.00	.47	4.48	4.71	6.4	3.08	.68	.95
2005-06	416.4	252.7	62.6	32.3	4.64	.62	5.26	5.52	7.8	3.85	.69	.98
2006-07	598.9	218.8	79.2	28.0	5.46	.86	6.32	6.67	12.0	4.80	.72	1.15
2007-08	953.4	233.0	85.7	28.9	6.37	1.01	7.38	7.44	15.2	5.24	.96	1.25
2008-09	1016.0	273.8	94.9	33.6	7.28	1.27	8.55	8.50	36.9	6.08	.97	1.46
2009-10	1531.8	296.3	115.7	42.5	8.46	1.75	10.22	10.56	37.5	7.48	1.24	1.85
2010-11	1601.8	396.9	130.7	48.9	10.85	1.80	12.65	13.07		9.68	1.33	2.07
2011-12					11.72	2.11	13.83	14.19		10.35	1.49	2.35

Source: BANBEIS (2011), Publication No. 404, p. 214-216 and University Grants Commission of Bangladesh, Annual Report 2001 to 2012.

Table-A.2 Education Policies' and Other Recommendations

Title of the Policies/ Plans/ Reports	**Year**	**% of GDP/ NI on Education**	**% of Govt. Expenditure on Education**	**% of GDP/NI on Higher Education**	**% of Govt. Expenditure for Higher Education**
National Education Policy	2010	Not Mentioned	Not Mentioned	Not Mentioned	Not Mentioned
Strategic Plan for Higher Education in Bangladesh	2006-2026	Not Mentioned	Not Mentioned	Not Mentioned	Not Mentioned
Nation Education Commission	2003	Not Mentioned	Not Mentioned	Not Mentioned	Not Mentioned
National Education Policy	2000	4.5% in 2009-10	Not Mentioned	Not Mentioned	Not Mentioned
Report of National Education Policy Preparation Committee	1997	5% of NI	Not Mentioned	(5*15%) =0.75%	Not Mentioned
Bangladesh National Education Commission	1988	Not Mentioned	20 in 2000	Not Mentioned	Not Mentioned
Interim Education Policy	1978	7% of NI	Not Mentioned	Not Mentioned	Not Mentioned
Bangladesh Education Commission Report	1974	5% of NI immediately and as early as possible increase to 7%	25%	(5*15%) =0.75%	(25*15%) =3.75%
Education Ministers' Conference held in Tokyo	1962	4% to 5% percent of NI for developing countries	Not Mentioned	Not Mentioned	Not Mentioned
6th 5 Years Plan	2011-2015	5%	18%	Not Mentioned	Not Mentioned

Source: Self constructed based on different education commission reports, strategic plan for higher education and 6th 5 year plan.

Table-A.3 Information on Unemployment, Session Jam and Job Nature

	Categories of Universities			
Particulars	**General**	**Agricultural**	**Engineering**	**Science & Technology**
	Mean	Mean	Mean	Mean
1. Duration of University Degree (in Year)	4.96	5.49	4.71	5.07
2. Duration of Short-Term Unemployment (in Months)	10.01	9.42	7.29	9.40
3. Duration of Session Jam (in Months)	20.65	10.6	17.71	16.84
4. Per Student Per Year Government Expense (Tk.)	49320	170988	72003	47074
5. Per Student Per Year Guardian Expenses (Tk.)	72594	68838	84384	80688
6. Per Student Government Expense in Schedule Time(Tk.)	244436	939009	339443	238665
7. Per Student Govt. Expenses for Session Jam (Tk.)	84872	151039	106264	66061
8. Per Student Govt. Expenses for Schedule Time & Session Jam (Tk.)	329307	1090049	445707	304726
9. Per Student Guardian Expenses in Schedule Time (Tk.)	359785	378035	397810	409088
10. Per Student Guardian Expenses for Session Jam (Tk.)	124922	60807	124537	113232
11. Per Student Guardian Expenses for Schedule Time & Session Jam (Tk.)	484707	438842	522347	522320
12. Per Student Total Expenses in Schedule Time (Tk.)	604220	1317044	737253	647753
13. Per Student Total Expenses for Session Jam (Tk.)	209794	211846	230801	179293
14. Per Student Total Expenses (Govt. + Guardian) (Tk.)	814014	1528891	968054	827046
15. Govt. ex. for session jam as percent of govt. total ex. (%)	25.77	13.86	23.84	21.68

16. Guardian. ex. for session jam as percent of total guardian ex. (%)	25.77	13.86	23.84	21.68
17. Expense for Session Jam as Percentage of Total Expenses (%)	25.77	13.86	23.84	21.68
18. Per Student Extra Expense Based on General Universities (including session jam) Due to Job Nature (Tk.)	0	714877	154040	13032
19. Per Student Extra Expense Based on General Universities (including session jam) Due to Job Nature (%)	0	87.82	18.92	1.60
20. Per Student Extra Expense Based on General Universities (excluding session jam) Due to Job Nature (Tk.)	0	712824	133033	43533
21. Per Student Extra Expense Based on General Universities (excluding session jam) Due to Job Nature (%)	0	54.12	22.017	7.20

Source: Self calculated based on both primary and secondary data

Table-A.4 Study Area of the Alumnae

Study Area	Frequency	Percent
Arts	86	15.4
Social Science	113	20.3
Business	88	15.8
Science	138	24.8
Engineering	43	7.7
Technology	4	.7
Agriculture	76	13.6
Law	7	1.3
Education	2	.4
Total	**557**	**100.0**

Source: Analysis of primary data collected from alumnae

Table-A.5 National Education Budget and HDI Value

Year	Education Budget (in constant value of Million Taka)	HDI Value
1990	14944.2	0.352
1991	19088.5	
1992	22674.3	
1993	27608.4	
1994	35262.6	
1995	35226.2	
1996	38473.2	
1997	41787.8	
1998	47190	
1999	52386.1	
2000	58517	0.422
2001	58766.5	
2002	65037.8	
2003	67579.2	
2004	71301.2	
2005	94876.8	0.462
2006	107219.2	
2007	114543.7	
2008	128518.2	
2009	158204.5	0.491
2010	179592.8	0.496
2011	183600	0.5
2012	214080	0.515

Source: BANBEIS (2011), Publication No. 404, p. 214-216 and Human Development Report 2011, Table No- 2, Page-131 to 134 and Human Development Report 2013, Table No- 1, Page-144 to 147.

Tabe-A.6 Cadre Distribution in BCS Examination and Field of Higher Education

Merit Position	28th BCS		29th BCS		30th BCS		31st BCS	
	Discipline	**Cadre**	**Discipline**	**Cadre**	**Discipline**	**Cadre**	**Discipline**	**Cadre**
First	Social Welfare	Foreign Affairs	M.S.S (Pass)	Police	B.Sc. (Computer)	Custom and Excise	Business Administration (IBA, DU)	Administration
Second	Computer Science	Police	M.A. (English)	Foreign Affairs	MBBS	Health	Business Administration (IBA, DU)	Police
Third	BSC Engineering (Civil)	Foreign Affairs	M.B.A. (Accounting)	Foreign Affairs	Honors (Economics)	Foreign Affairs	Social Welfare (DU)	Foreign Affairs
Fourth	English	Administration	M.S.S. (Library and Information Science)	Administration	B.Sc. (Genetics Engineering)	Police	English (DU)	Administration
Fifth	BSC Engineering (CSE)	Foreign Affairs	B.Sc. (Computer)	Foreign Affairs	Honors (Sociology)	Police	Economics (JU)	Foreign Affairs
Sixth	BSC Engineering (Electrical and Electronics)	Foreign Affairs	M.S.S. (Economics)	Foreign Affairs	M.S.S. (Economics)	Foreign Affairs	Public Administration (DU)	Foreign Affairs
Seventh	Public Administration	Foreign Affairs	M.Sc. (Chemistry)	Administration	M.Sc. (Micro Biology)	Custom and Excise	English (NU)	Foreign Affairs
Eighth	BSC Engineering (Civil)	Foreign Affairs	Honors (Computer Science)	Foreign Affairs	M.B.A. (Marketing)	Foreign Affairs	English (DU)	Administration
Ninth	MBBS	Foreign Affairs	Honors (Business)	Foreign Affairs	Honors (English)	Foreign Affairs	International Relations	Administration
Tenth	Finance	Administration	Honors (English)	Foreign Affairs	Honors (English)	Foreign Affairs	Veterinary Science (RU)	Foreign Affairs

Source: Annual Report (2010), Bangladesh Public Service Commission, p.126.

Annual Report (2011), Bangladesh Public Service Commission, p.85 & 95.

Annual Report (2012), Bangladesh Public Service Commission, p.81.

Tabe-A.7 Distribution of Education Contingencies (2011-2012 Fiscal Year)

(Expense in Constant Value of Lakh Taka)

Head of Expense	Name of University					Total
	RU	RUET	BSMRAU	JKKNIU	MBSTU	
a. Education Expense (Tk.)	130.32	14.93	43.63	19.85	22.53	231.26
b. Examination Expense (Tk.)	842.02	105.12	52.06	89.36	98.83	1187.39
c. Students' Facilities (Tk.)	80.53	8.82	18.62	8.74	69.86	186.57
Education Contingencies (Tk.) (a+b+c)	**1052.87**	**128.87**	**114.31**	**117.95**	**191.22**	**1605.22**
Education Expense to Education Contingencies (%)	12.38	11.59	38.17	16.83	11.78	14.41
Exam Expense to Education Contingencies (%)	79.97	81.57	45.54	75.76	51.68	73.97
Students' Facilities to Education Contingencies (%)	7.65	6.84	16.29	7.41	36.53	11.62

Source: Budget book, revised budget 2012-2013 of different universities

Appendix-B

Table-B.1 Higher Education Quality and Economic Development through HRD

SL No.	Statement	Yes (%)	No (%)	Others (%)	No Comment (%)	Total (%)
1	Human resource development through higher education leads to economic growth	60 (95.2)	2 (3.2)		1 (1.6)	63 (100)
2	Bangladesh higher education is standard enough to meet local demand	13 (20.6)	43 (68.3)	1(1.6)	6 (9.5)	63 (100)
3	Bangladesh higher education is standard enough to meet international demand	4 (6.3)	53 (84.1)	1 (1.6)	5 (7.9)	63 (100)
4	Quality of higher education in Bangladesh is increasing gradually	31 (49.2)	25 (39.7)	1 (1.6)	6 (9.5)	63 (100)
5	Quality of higher education in Bangladesh is declining gradually	28 (44.4)	28 (44.4)		7 (11.1)	63 (100)
6	Quality of higher education in Bangladesh is remain unchanged	4 (6.3)	36 (57.1)		23 (36.5)	63 (100)
7	Quality of higher education in Bangladesh can meet the demand of the time	12 (19)	40 (63.5)	1 (1.6)	10 (15.9)	63 (100)

Source: Analysis of primary data collected from faculties of public universities through semi-structured questionnaire

Table-B.2 Allocation and Implementation of Higher Education Budget

SL No.	Statement	Yes	No	Others	No Comment	Total
1	Budget allocation for higher education especially for public universities is sufficient	1 (1.6)	54 (85.7)		8 (12 .7)	63 (100)
2	Budget allocation for higher education especially for public universities is needed to be increased	56 (88.9)	2 (3.2)		5 (7.9)	63 (100)
3	Budget allocation for research is insufficient	57 (90.5)	1 (1.6)		5 (7.9)	63 (100)
4	Budget for higher education especially for public universities is implemented properly	7 (11.1)	48 (76.2)		8 (12 .7)	63 (100)
5	Insufficient budgetary allocation for higher education is an impediment to HRD	52 (82.5)	4 (6.3)		7 (11.1)	63 (100)
6	Inappropriate implementation of higher education budget is an impediment to HRD	53 (84.1)	2 (3.2)		8 (12 .7)	63 (100)
7	Budget for research and development is needed to be increased	60 (95.2)	3 (4.8)			63 (100)

Source: Analysis of primary data collected from faculties of public universities through semi-structured questionnaire

Table-B.3 Higher Education Quality and Higher Education Budget

SL No.	Statement	Yes	No	Others	No Comment	Total
1	Cost of higher education is an investment	58 (92.1)	2 (3.2)		3 (4.8)	63 (100)
5	Higher education quality is positively associated with higher education budget	49 (77.8)	6 (9.5)		8 (12.7)	63 (100)

Source: Analysis of primary data collected from faculties of public universities through semi structured questionnaire

Table-B.4 Financing Higher Education in Bangladesh

SL No.	Sources	Frequency	Percentage
1	Government should provide total funding for higher education	54	85.7
2	Tuition fees should be the major source	13	20.6
3	Imposing special education tax on alumnae	3	4.8
4	Imposing special education tax on high income people	22	34.9
5	Through public private partnership (PPP)	29	46.0
6	Establish profit oriented economic projects	11	17.5
7	Introducing student loan	23	36.5
8	Engage faculties in consultancy, research project and grant, etc.	41	65.1
9	Build up linkage with scholarship providers at home and in abroad	47	74.6
10	Introduce evening shift with private financing	15	23.8
11	Introduce double shift	15	23.8
12	Students' existing fees need to increase consistently	2	3.17
13	Financing through research contract with industries for mutual welfare	2	1.59
14	Influence alumnae to donate for higher education	1	1.59
15	Influence higher society to donate with establishment of libraries/ laboratory in their name	1	1.59
16	Collaborative research with foreign research institutes or universities for higher study	1	1.59
17	Combination of government fund and students' tuition fees	1	1.59
18	Establish relationship with foreign educational institutions	1	1.59

Source: Analysis of primary data collected from faculties of public universities through semi-structured questionnaire

Table-B.5 Challenges for Higher Education Budget in Bangladesh

Sl. No.	Description	Frequency	Percentage
1	Insufficient budget allocation	43	68.3
2	Inappropriate budget implementation	40	63.5
3	Lack of proper planning	44	69.8
4	Lack of proper implementation of plans	29	46.0
5	Malpractices of public university autonomy	29	46.0
6	Huge freedom of public university faculties	14	22.2
7	Influence of slavish national politics in higher educational institutions	57	90.5
8	Emphasis on political identity over merit while recruiting faculties	50	79.4
9	Lack of training of faculties	34	54.0
10	Lack of accountability of faculties	23	36.5
11	Length of service is considered while upgrading faculties to higher level instead of teaching competence	28	44.4
12	Number of publications is considered while upgrading faculties to higher level instead of quality of journals	30	47.6
13	Consideration of political identity while upgrading faculties to higher level	27	42.9
14	Consideration of political identity while assigning tasks to the faculties	37	58.7
15	Recruitment of incompetent faculties	23	36.5

16	Lack of motivation for teaching at public universities to the qualified candidates	16	25.4
17	Consideration of political identity in every levels of recruitment at public universities	29	46.0
18	Unattractive salary structure of public university faculties	53	84.1
19	Lack of administrative accountability	14	22.2
20	Lack of sufficient infrastructural facilities	27	49.9
21	Limited library facilities	24	38.1
22	Limited laboratory facilities	24	38.1
23	Lack of quality research	40	63.5
24	Lack of research incentive	27	42.9
25	Lack of collective efforts of education policy planners, university administration, faculties and supporting staff	15	23.8
26	Non-performance of appropriate steps by government	12	19.0
27	No relationship with job providers	18	28.6
28	Impact of slavish political activates (*hortal*, strike, etc)	30	47.6
29	Session jam	16	25.4

Source: Analysis of primary data collected from faculties of public universities through semi-structured questionnaire

Table-B.6 Utilization of Higher Education Budget in Bangladesh

Sl. No.	Particular	Frequency	Percentage
1	Per student extra expenditure of the government due to session jam is a waste	39	61.9
2	Extra expenditure of guardians due to session jam is a waste	37	58.7
3	Loss of earning opportunity of students due to delay in starting working life for session jam	35	55.6
4	Delay in contributing to the economic development of the country due to delay in starting working life for session jam	40	63.5
5	Higher education expenses is unproductive for the period of short-term unemployment of higher educated people	15	23.8
6	Country is deprived of getting services from unemployed higher educated people during their short-term unemployment period	15	23.8
7	Unemployed higher educated people lose their earning opportunity during the period of their short-term unemployment	10	15.9
8	Late contribution to economic development due to delay in starting work for short-term unemployment	15	23.8
9	Higher education cost for the long-term unemployed graduates is unproductive and misused	16	25.4
10	Extra expense (expenses of technical graduate minus expenses of general graduate) for technical graduates working in non-technical jobs is unproductive	29	46
11	Productivity of technical graduates (agriculture, medical, engineer, etc.) is reduced when they work in non-technical (police, admin, banker, etc.) field	27	42.9

Source: Analysis of primary data collected from faculties of public universities through semi-structured questionnaire

Table-B.7 Seat Capacity in Different Disciplines and Employment of Technical Graduates

Sl. No.	Statement	Yes (%)	No (%)	Others (%)	No Comment (%)	Total (%)
1	Seat capacity of different disciplines in higher academic institutions especially in public universities should be determined considering job opportunities at home and in abroad	49 (77.8)	11 (17.5)		3 (4.8)	63 (100)
2	Technical graduates (doctor, engineer, agronomist, etc.) should be employed in their own field of study	57 (90.5)	2 (3.2)		4 (6.3)	63 (100)

Source: Analysis of primary data collected from faculties of public universities through semi-structured questionnaire

Table-B.8 Employment of Higher Education Graduates in Bangladesh

Sl No	Particulars	Frequency	Percentage
1	Seat capacity of higher education institutions should be determined considering the scope of jobs	33	52.4
2	Motivate higher educated graduates for self employment	43	68.3
3	Include such contents in the course curricula that can help promote self employment	44	69.8
4	Arrange counseling of higher secondary students for their higher education and employment	20	31.7
5	Arrange employment facilities for the higher educated people in their field of expertise	29	46.0
6	Productivity will increase if the technical graduates are employed in their study area	38	60.0
7	Strive to reduce unemployment rate at zero level	26	41.3
8	Prepare data base for higher educated people and arrange employment opportunities for them	17	27.0
9	Given importance only on merit for job	41	65.1
10	Recruitment based on quota system should be reduced gradually	43	68.3
11	Stop quota system for providing job	24	38.1
12	Reduce the length of the recruitment process	39	61.9
13	Provide all govt. jobs through only one examination considering qualities and choices of the candidates	23	36.5
14	Provide all non-govt. jobs through only one examination considering qualities and choices of candidates	12	19.0
15	Arrange job fairs for providing jobs	22	34.9

Source: Analysis of primary data collected from faculties of public universities through semi-structured questionnaire

Table-B.9 Ways to Overcome the Challenges of Higher Education Budget in Bangladesh

Sl No	Particulars	Frequency	Percentage
1	Increase budget allocation	44	69.8
2	Ensure proper implementation of the allocated budget	50	79.4
3	Take short and long term plans	43	68.3
4	Assure proper implementation of plans	37	58.7
5	Ensure proper practice of public university autonomy	36	57.1
6	Control inappropriate application of huge freedom of public university faculties	19	30.2
7	Make higher educational institutions free from the influence of slavish national politics	46	77.8
8	Merit should get priority over political identity while recruiting public university faculties	44	69.8
9	Teaching competence should be considered along with service duration while upgrading faculties to higher position	34	54.0
10	Quality of journals along with number of articles should be considered while upgrading faculties to higher position	39	61.9
11	Qualification and competence should be considered while assigning additional charges to the faculties	34	54.0
12	Recruitment at all levels in universities should be free from politics	39	61.9

13	Educational institutions should be kept away from political activities (*hortal*, strike, etc)	37	58.7
14	Recruit qualified and competent faculties	37	58.7
15	Assure training for faculties at home and in abroad	43	68.3
16	Assure accountability of faculties	30	47.6
17	Motivate qualified candidates for teaching at universities	21	33.3
18	Introduce attractive salary structure for university faculties	48	76.2
19	Increase combined efforts	13	20.6
20	Ensure administrative accountability	13	20.6
21	Create necessary infrastructure	33	52.4
22	Create online library facilities with traditional library	34	54.0
23	Take necessary steps by the government	13	20.6
24	Higher academic institutions should establish relationship with job providers	22	34.9
25	Create necessary laboratory facilities	22	34.9
26	Establish relationship with business and industries to increase quality research	27	42.9
27	Increase research incentive through increasing financial and non-financial facilities	30	47.6
28	Different stapes like preparation and implementation of academic calendar, complete class-examination in due time should be taken to eliminate session jam	34	54.0

Source: Analysis of primary data collected from faculties of public universities through semi-structured questionnaire

Appendix-C

QUESTIONNAIRE FOR ALUMNAE

Topic: Higher Education Budget for Human Resource Development:

Bangladesh Perspective

Dear Sir,

This survey is a part of a research work to evaluate higher education budget and its utilization for human resource development (HRD) in Bangladesh. The researcher is committed to maintain secrecy of your provided information. The researcher expects your cordial cooperation to enhance the standard, validity, reliability, and credibility of the proposed research.

Regards,

Shakhawat Hossain Sarkar

[Please put tick (√) mark in any one option of the following questions. Write your comments and opinion on some questions and options where necessary]

A) Personal Information:

i. Name of the Respondent:……ii. Sex: Male/ Female iii. Mobile:…….

B) Professional Information:

i. Official Designation:…..……ii. Branch/ Location:.....……

iii. Office/ Department/ Employer:...……

iv. Joining Date at Present Job/ Year:…….……..

v. Name of Present Training Program and Venue:…….....

C) Academic Information (Graduation & Masters)**:**

i. Name of the University:……...……

ii. Faculty/School/Institute: ……....……

iii. Department: …….……..……..

iv. Year of Passing: ……...……....v. Highest Degree Earned:…….

D) Reasons for Choosing Your Present Job:

Question No.	Question	Highly Agree	Agree	Neither Agree nor Disagree	Disagree	Highly Disagree
1.	Attractive pay structure					
2.	Opportunity for promotion					
3.	Impressive non-financial benefits (medical, transport, study facilities for child, etc.)					
4.	Prestigious job					
5.	Excellent work environment					
6.	Scope of exerting power					
7.	No alternative job					

E. Role/Impact/Contribution of Higher Education in Your Existing Job:

Question No.	Question	Highly Agree	Agree	Neither Agree nor Disagree	Disagree	Highly Disagree
8.	Higher education help you get the job					
9.	Higher education knowledge is directly used in your job					
10.	Job nature is directly related to your academic discipline					
11.	Job satisfaction in your present job					

F) Higher Education Quality, Employment, Budget and Financing in Bangladesh:

Question No.	Question	Highly Agree	Agree	Neither Agree nor Disagree	Disagree	Highly Disagree
12.	Bangladesh higher education is standard enough to meet the local demand					
13.	Bangladesh higher education is standard enough to meet the international demand					
14.	Higher education quality is associated with higher education budget					
15.	Budget for research and development need to be increased					
16.	Unemployment of higher educated people has been increasing gradually due to low quality education					
17.	Underemployment of higher educated people has been increasing gradually due to low quality education					
18.	Technical graduates should be employed in their own field of study					
19.	Curriculum should be updated considering ever changing work environment					
20.	Your interest in higher education decreased because of not getting admission in your expected discipline					
21.	Your working ability decreased because of not getting expected job					
22.	Government should provide total funding for higher education					
23.	Tuition fee should be the major source of fund					

24) What sources of finance do you recommend for higher education especially for Public University in Bangladesh? (You can choose one or more options)

a. Imposing special education tax on alumnae

b. Imposing special education tax on private employers

c. Introducing student loan

d. Engage faculties in consultancy, research project, grant, etc.

e. Build up linkage with scholarship providers at home and in abroad

f. Establish profit oriented economic projects

g. Introduce evening shift with private finance

h. Others (Please specify): .....

g. Monthly cost and time spent in your undergrad and masters levels:

25.	Month(s)/ year(s) lost in your university life	
26.	Duration of your undergrad degree	2 years/3 years/ 4 years/ 5 years
27.	Duration of your masters degree	1 year/2 years/ no masters
28.	Average monthly expenses in your university life	Beginning…..….Ending……
29.	Span of your university life (Year)	Beginning…..….Ending……

h. Your higher education & choice of job and job related:

30. What was your expected study discipline at the tertiary level?

Ans: ……

31. How long you had to wait for getting first job after passing from the university? Ans: ……

32. How long you had to wait for getting your expected job after passing from university?

Ans. ……./ Not getting till now

33. What is your reaction about your level/ position in present job?

a. Right job position (b) Lower job position (c) Higher job position

(d) Others (Please specify)……..

34. What was your expected job?

Administration/ Police/Custom/ Tax/ Foreign Affairs/ Audit/ Bankers/ Corporate Executive/ Defense/ Teaching/ Other (Please specify) ……..

35. What is the main reason (s) for accepting your present job?

Ans: ……

Please give any other suggestion that could help develop human resources through higher education in Bangladesh.

-
-
-

Thank you for your cordial cooperation

Sign and Date

Questionnaire for Alumnae

Title of the Research: Higher Education Budget for Human Resource Development: Bangladesh Perspective

Dear Sir,

This survey is a part of PhD research work to evaluate higher education budget and its utilization for human resource development (HRD) in Bangladesh. The researcher is committed to maintain secrecy of your provided information. The researcher expects your cordial cooperation to increase the standard, validity, reliability, and credibility of the proposed research.

Regards,

Shakhawat Hossain Sarkar

[wb‡Pi ck¸‡jvi ‡h †Kvb GKwU Ack‡b wUK *(√)* wPý w`b| c‡hvR¨ †¶‡Î GK K_vq I ms‡¶‡c gZvgZ w`b]

K) e¨w³MZ Z_¨:

i. bvg: ……..ii. wj½: ci“l/ gwnjv iii. †gvevBj: ……

L) †ckvMZ Z_¨:

i. c`we :……(ii) kvLv/ †jv‡Kkb :……..……

iii. cwZôv‡bi bvg: …….. iv) eZgvb PvKwi‡Z †hvM`v‡bi ZwiL/ eQi : ……

v) eZgvb †Uwbs †cvMv‡gi bvg I ¯vb :……

M) wk¶vMZMZ Z_¨ (¯vZK I ¯vZ‡KvËi):

i. wekwe`¨vj‡qi bvg: ……...

ii. Abl`/¯‹j/Bbw÷wUDU: ...……

iii. wefvM: ..……..……

iv. cv‡ki eQi: ……...……..v. AwRZ m‡ev"P wWMxi bvg: ……..……

N) eZgvb PvKwi Mn‡Yi KviY:

ক্রমিক নং	ck	mxúY GKgZ	GKgZ	GKgZI bv wfbgZI bv	wfbgZ	mxúY wfbgZ
1.	AvKlwbq ‡eZb KvVv‡gv					
2.	c‡`vbwZi m‡hvM					
3.	AvKlwbq Abw_K m‡hvM-mwea (wPwKrmv, hvZvqvZ, ev"Pvi †jLv-covi m‡hvM, BZ¨w`)					
4.	m¤§vbRbK †ckv					
5.	Kv‡Ri m›`i I g‡bvig cwi‡ek					
6.	¶gZv e¨env‡ii m‡hvM					
7.	Ab¨ weKí ‡Kvb PvKwi wQj bv					

O) eZgvb PvKwi‡Z Avcbvi D"P wk¶vi fwgKv/cfve/Ae`vb:

ক্রমিক নং	ck	81% _‡K 100%	61% †L‡K 80%	41% †_‡K 60%	21% †_‡K 40%	20% Gi g‡a¨
8.	Avcbvi D"P wk¶vi Ávb Avcbv‡K eZgvb PvKwi †c‡Z mnvqZv K‡i‡Q					
9.	Avcbvi D"P wk¶vi Ávb Avcbvi PvKwi‡Z e¨envi nq					
10.	PvKwii cKwZ Avcbvi GKv‡WwgK D"P wk¶vi mv‡_ mivmwi m¤úwKZ					
11.	Avcbvi eZgvb PvKwi‡Z Kg mšwó (job satisfaction) i‡q‡Q					

চ) বাংলাদেশের উচ্চ শিক্ষার মান, এম্প্লয়মেন্ট, বাজেট এবং অর্থায়ন:

ক্রমিক নং	ck	m¤úỳ GKgZ	GKgZ	GKgZ I bv wfbgZ I bv	wfbgZ	m¤úỳ wfbgZ
12.	¯vbxq Pwn`v ci‡Yi Rb¨ Avgv‡`i †`‡ki D”P wk¶v h‡_ó gvbm¤úb					
13.	AvšRwZK Pwn`v ci‡Yi Rb¨ Avgv‡`i †`‡ki D”P wk¶v h‡_ó gvbm¤úb					
14.	D”P wk¶vi ev‡R‡Ui mv‡_ D”P wk¶vi gv‡bi BwZevPK m¤úK i‡q‡Q					
15.	M‡elYv I Dbqb eve` ev‡RU mnvqZv e¨× Kiv c‡qvRb					
16.	D”P wk¶vi wb¤ gv‡bi Kvi‡Y D”P wkw¶Z †eKvi e¨× cv‡”Q					
17.	D”P wk¶vi wb¤ gv‡bi Kvi‡Y D”P wkw¶Z Ebwb‡qvRb (underemployment) e¨× cv‡”Q					
18.	†UKwbK¨vj MvR‡qU‡`i wbR¯ †¶‡Î PvKix nIqv DwPZ					
19.	m`v cwieZbkxj KgcKwZ we‡ePbvq wb‡q D”P wk¶vi KwiK¨jvg wbaviY nIqv DwPZ					
20.	Avcbvi cQ‡›`i wel‡q fwZ n‡Z bv cvivi Kvi‡Y D”P wk¶vq AvMn nwi‡qwQ‡jb					
21.	cQ‡›`i PvKix bv cvIqvi Kvi‡Y Avcbvi Kg¶gZv h_vh_ fv‡e e¨envi n‡”Q bv					
22.	D”P wk¶vi c‡qvRwbq hvewZq A‡_i ms¯vb miKvi Ki‡e					
23.	QvÎ-QvÎx‡`i wUDkb wd D”P wk¶vi A_vq‡bi cavb Drm n‡e					

24. Avgv‡`i †`‡ki D”P wk¶vi A_vq‡bi Rb¨ Avcwb Avi †Kvb †Kvb Drm mcwik K‡ib (GKwaK Ack‡b wUK †`Iqv hv‡e)?

(K) mv‡eK QvÎ-QvÎx‡`i Dci we‡kl wk¶v Ki Av‡ivc (L) †emiKwi PvKwi`vZv‡`i Dci we‡kl wk¶v Ki Av‡ivc (M) QvÎ-QvÎx‡`i Rb¨ FY e¨e¯v Pvj Kiv (N) Kbmvj U¨wÝ, M‡elYv cKí Ges M‡elYv Ab`vb, BZ¨w`‡Z wk¶K‡`i Ašf³ Kiv (O) †`k I we‡`‡k ewË c`vbKwi‡`i mv‡_ m¤úK M‡o †Zvjv (P) gbvdv †Kw›`K A_‰bwZK cKí cwZôv Kiv (Q) cvB‡fU A_vq‡b B‡fwbs wkdU Pvj Kiv (R) Ab¨vb¨.....

Q) Avcbvi wekwe`¨vjq Rxe‡b ¯vZK (Undergraduate) I ¯vZ‡KvËi (Post Graduate) chv‡q e¨wqZ mgq I A_:

25.	†mkb R‡Ui Rb¨ Avcbvi wekwe`¨vjq Rxe‡b KZw`b AwZwi³ e¨q n‡q‡Q (eQi Ges gvm)	
26.	Avcbvi ¯vZK wWMx KZ eQi †gqw` wQj	2 eQi /3 eQi/4 eQi /5 eQi
27.	Avcbvi ¯vZ‡KvËi wWMx KZ eQi †gqw` wQj	1 eQi /2 eQi/ wQj bv
28.	Avcbvi wekwe`¨vjq Rxe‡b M‡o gwmK e¨q (tuition, food, residence, conveyance, etc.)	ï i“.....‡kl.....
29.	Avcbvi wekwe`¨vjq Rxe‡bi e¨wß (mb D‡jøL Ki“b)	ï i“.....‡kl.....

জ) আপনার উচ্চ শিক্ষা ও চাকুরি পছন্দ এবং চাকুরি প্রাপ্তি সংক্রান্ত:

30. Avcwb †Kvb discipline/ department G D”P wk¶v MnY Ki‡Z †P‡qwQ‡jb?

DËi. .....

31. wekwe`¨vjq †_‡K cvk Kivi KZw`b ci Avcwb c_g PvKwi †c‡qwQ‡jb?:

DËi . .....

32. wekwe`¨vjq †_‡K cvk Kivi KZw`b ci Avcwb Avcbvi cZ¨wkZ PvKwi †c‡qwQ‡jb?:

DËi . ...../ GLbI cvB bvB

33. Avcbvi †hvM¨Zv I cZ¨vkv Abhvqx eZgvb PvKwii cwRkb/ †j‡f j m¤ú‡K wb‡Pi †Kvb AckbwU Avcbvi Rb¨ mwVK g‡b K‡ib?

(K) mwVK cwRk‡bi PvKwi (L) wb¤ cwRk‡bi PvKwi (M) D"P cwRk‡bi PvKwi

(N) Ab¨vb¨……

34. Avcwb †Kvb PvKwi Ki‡Z B"QK wQ‡jb?

ckvmb/ cwjk/ Kv÷g/ †U·/d‡ib G‡dqvm/AwWUi/e¨vsKvi/K‡cv‡iU

Gw·wKDwUf/mvgwiK/wk¶KZv/Ab¨vb¨……...……

35. Avcbvi eZgvb PvKwi Mn‡Yi wcQ‡b cavb KviY wK?

DËi ……..…….....

D"P wk¶vi gva¨‡g evsjv‡`‡ki gvbe m¤ú` Dbq‡b mnvqK n‡e Ggb †Kvb gZvgZ _vK‡j cÖv‡bi Rb¨ Ab‡iva KiwQ|

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Thank you for your cordial cooperation

Sign and Date

Appendix-D

QUESTIONNAIRE FOR FACULTY

Topic: Higher Education Budget for Human Resource Development: Bangladesh Perspective

Dear Sir,

This survey is a part of a PhD research work to evaluate higher education budget and its utilization for human resource development (HRD) in Bangladesh. The researcher is committed to maintain secrecy of your provided information. The researcher expects your cordial cooperation to enhance the standard, validity, reliability, and credibility of the proposed research.

With best regards,

Shakhawat Hossain Sarkar

Personal and Professional Information:

i. Name: ……ii. Gender: Male/Female iii. Mobile: ……

iv. Designation: …….v. Name of the highest degree:…….....

vi. Address: ……..…….

[Please put tick (√) mark in any one or more option (s) and give your comment(s) and opinion(s) on the following questions and or statements.]

a.	Human resource development through higher education leads to economic growth	Yes	No
b.	Do you consider cost of higher education as an expense or investment?	Expense	Investment

c. What is your opinion about our existing higher education quality?

1.	Bangladesh higher education is standard enough to meet local demand	Yes	No
2.	Bangladesh higher education is standard enough to meet international demand	Yes	No
3.	Quality of higher education in Bangladesh is increasing gradually	Yes	No
4.	Quality of higher education in Bangladesh is declining gradually	Yes	No
5.	Quality of higher education in Bangladesh is remain unchanged	Yes	No
6.	Quality of higher education in Bangladesh can meet the demand of the time	Yes	No
7.	Others (Please specify):		

d. What is your opinion about higher education budget with special reference to public universities in Bangladesh?

1.	Budget allocation for higher education especially for public universities is sufficient	Yes	No
2.	Budget allocation for higher education especially for public universities is needed to be increased	Yes	No
3.	Budget allocation for research is insufficient	Yes	No
4.	Higher education quality is positively associated with higher education budget	Yes	No
5.	Budget for higher education especially for public universities is implemented properly	Yes	No
6.	Insufficient budgetary allocation for higher education is an impediment to HRD	Yes	No
7.	Inappropriate implementation of higher education budget is an impediment to HRD	Yes	No
8.	Budget for research and development is needed to be increased	Yes	No
7.	Others (Please specify):		

e. **What are the sources do you recommend for higher education finance especially for public universities in Bangladesh?** (You may choose one or more options)

(1) Government should provide total funding for higher education

(2) Tuition fees should be the major source

(3) Imposing special education tax on alumnae

(4) Imposing special education tax on high income people

(5) Through public private partnership (PPP)

(6) Establish profit oriented economic projects

(7) Introducing student loan

(8) Engage faculties in consultancy, research project and grant, etc.

(9) Build up linkage with scholarship providers at home and in abroad

(10) Introduce evening shift with private financing

(11) Introduce double shift

(12) Others (Please specify): .....

f. **In your judgment what are the challenges for higher education in Bangladesh?** (You can choose one or more options)

1. Insufficient budget allocation
2. Inappropriate budget implementation
3. Lack of proper planning
4. Lack of proper implementation of plans

5. Malpractices of public university autonomy
6. Huge freedom of public university faculties
7. Influence of slavish national politics in higher educational institutions
8. Emphasis on political identity over merit while recruiting faculties
9. Lack of training of faculties
10. Lack of accountability of faculties
11. Length of service is considered while upgrading faculties to higher levels instead of teaching competence
12. Number of publications is considered while upgrading faculties to higher levels instead of quality of journals
13. Consideration of political identity while upgrading faculties to higher levels
14. Consideration of political identity while assigning tasks to the faculties
15. Recruitment of incompetent faculties
16. Lack of motivation for teaching at public universities to the qualified candidates
17. Consideration of political identity in every levels of recruitment at public universities
18. Unattractive salary structure of public university faculties
19. Lack of administrative accountability
20. Lack of sufficient infrastructural facilities
21. Limited library facilities

22. Limited laboratory facilities
23. Lack of quality research
24. Lack of research incentive
25. Lack of collective efforts of education policy planners, university administration, faculties and supporting staff
26. Non-performance of appropriate steps by the government
27. No relationship with job providers
28. Impact of slavish political activates (*hortal*, strike, etc)
29. Session jam
30. Others (Please specify): .....

g. What is/are your opinion (s) about utilization of higher education budget in Bangladesh? (You may choose one or more options)

1. Per student extra expenditure of the government due to session jam is a waste
2. Extra expenditure of guardians due to session jam is a waste
3. Loss of earning opportunity of students due to delay in starting working life for session jam
4. Delay in contributing to the economic development of the country due to delay in starting working life for session jam
5. Higher education expenses is unproductive for the period of short-term unemployment of higher educated people

6. Country is deprived of getting services from unemployed higher educated people during their short-term unemployment period
7. Unemployed higher educated people lose their earning opportunity during the period of their short-term unemployment
8. Late contribution to economic development due to delay in starting work for short-term unemployment
9. Higher education cost for the long-term unemployed graduates is unproductive and misused
10. Extra expense (expenses of technical graduate minus expenses of general graduate) for technical graduates working in non-technical jobs is unproductive
11. Productivity of technical graduates (agriculture, medical, engineer, etc.) is reduced when they work in non-technical (police, admin, banker, etc.) field
12. Others (Please specify):.....

h.	Seat capacity of different disciplines in higher academic institutions especially in public universities should be determined considering job opportunities at home and in abroad	Yes	No
i.	Technical graduates (doctor, engineer, agronomist, etc.) should be employed in their own field of study	Yes	No

j. What is/ are your opinion(s) about employment of higher education graduates in Bangladesh? (You may choose one or more options)

1. Seat capacity of higher education institutions should be determined considering the scope of jobs
2. Motivate higher education graduates for self employment
3. Include such contents in the course curricula that can help promote self employment
4. Arrange counseling of higher secondary students for their higher education and employment
5. Arrange employment facilities for the higher educated people in their field of expertise
6. Productivity will increase if the technical graduates are employed in their study area
7. Strive to reduce unemployment rate at zero level
8. Prepare data base for higher educated people and arrange employment opportunities for them
9. Given importance only on merit for job
10. Recruitment based on quota system should be reduced gradually
11. Stop quota system for providing job
12. Reduce the length of the recruitment process
13. Provide all govt. jobs through only one examination considering qualities and choices of the candidates

14. Provide all non-govt. jobs through only one examination considering qualities and choices of candidates
15. Arrange job fair for providing jobs
16. Others (Please specify):.....

k. What are the ways to overcome the challenges of higher education budget in Bangladesh? (You can choose one or more options)

1. Increase budget allocation
2. Ensure proper implementation of the allocated budget
3. Take short and long term plans
4. Assure proper implementation of plans
5. Ensure proper practice of public university autonomy
6. Control inappropriate application of huge freedom of public university faculties
7. Make higher educational institutions free from the influence of slavish national politics
8. Merit should get priority over political identity while recruiting public university faculties
9. Teaching competence should be considered along with service duration while upgrading faculties to higher position
10. Quality of journals along with number of articles should be considered while upgrading faculties to higher position

11. Qualification and competence should be considered while assigning additional charges to the faculties
12. Recruitment at all levels in universities should be free from politics
13. Educational institutions should be kept away from political activities (*hortal*, strike, etc)
14. Recruit qualified and competent faculties
15. Assure training for faculties at home and in abroad
16. Assure accountability of faculties
17. Motivate qualified candidates for teaching at universities
18. Introduce attractive salary structure for university faculties
19. Increase combined efforts
20. Ensure administrative accountability
21. Create necessary infrastructure
22. Create online library facilities with traditional library
23. Take necessary steps by the government
24. Higher academic institutions should establish relationship with job providers
25. Create necessary laboratory facilities
26. Establish relationship with business and industries to increase quality research
27. Increase research incentive through increasing financial and non-financial facilities

28. Different stapes like preparation and implementation of academic calendar, complete class-examination in due time should be taken to eliminate session jam
29. Others (Please specify):.....

Please give any other suggestion that could help develop human resource through higher education in Bangladesh.

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Thank you for your cordial cooperation

Sign and Date

Appendix-D

Topic: Higher Education Budget for Human Resource Development: Bangladesh Perspective

Dear Sir,

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Regards,

Shakhawat Hossain Sarkar

K) e¨w³MZ I †ckvMZ Z_¨:

i. bvg: ……..ii. wj½: ci“l/ gwnjv iii. †gvevBj: ……

iv. c`we: ……..v. AwRZ m‡ev”P wWwMi bvg: ……...……...

vi. wVKvbv: ……..…….....

[wb‡Pi ck¸‡jvi †h †Kvb GKwU A_ev c‡hvR¨ †¶‡Î GKwaK Ack‡b wUK *(√)* wPý Ges c‡hvR¨ †¶‡Î GK K_vq A_ev ms‡¶‡c gZvgZ c`v‡bi Ab‡iva KiwQ]

K.	D”P wk¶vi gva¨‡g gvbe m¤ú` Dbqb A_‰bwZK Dbq‡bi cšv	n¨v	bv
L.	Avcwb D”P wk¶vi LiP‡K e¨q bv wewb‡qvM g‡b K‡ib	e¨q	wewb‡qvM

M. Avgv‡`i D”P wk¶vi eZgvb Ae¯v m¤ú‡K Avcbvi AwfgZ †KvbwU?

1.	¯vbxq Pwn`v ci‡Yi Rb¨ Avgv‡`i †`‡ki D”P wk¶v h‡_ó gvbm¤úb	n¨v	bv
2.	AvšRwZK Pwn`v ci‡Yi Rb¨ Avgv‡`i †`‡ki D”P wk¶v h‡_ó gvbm¤úb	n¨v	bv
3.	D”P wk¶vi gvb w`b w`b DbwZ n‡”Q	n¨v	bv
4.	D”P wk¶vi gvb w`b w`b AebwZ n‡”Q	n¨v	bv
5.	AcwiewZZ i‡q‡Q	n¨v	bv
6.	Avgv‡`i †`‡ki D”P wk¶v h‡Mvc‡hvMx	n¨v	bv
7.	Ab¨vb¨.....		

N. Avgv‡`i D”P wk¶vi we‡kl K‡i cvewjK wekwe`¨vj‡qi ev‡RU m¤ú‡K Avcbvi gZ †KvbwU?

1.	Avgv‡`i D”P wk¶vi we‡kl K‡i cvewjK wekwe`¨vj‡qi ev‡RU eivÏ chvß	n¨v	bv
2.	Avgv‡`i D”P wk¶vi we‡kl K‡i cvewjK wekwe`¨vj‡qi ev‡RU mnvqZv ew× Kiv c‡qvRb	n¨v	bv
3.	M‡elYv eve` ev‡RU eivÏ Achvß	n¨v	bv
4.	D”P wk¶vi ev‡R‡Ui mv‡_ D”P wk¶vi gv‡bi BwZevPK m¤úK i‡q‡Q	n¨v	bv

5.	Avgv‡`i D”P wk¶vi we‡kl K‡i cvewjK wekwe`¨vj‡qi eivÏKZ ev‡RU h_vh_ ev¯evqb n‡”Q	n¨v	bv
6.	Achvß ev‡RU eivÏ D”P wk¶vi gva¨‡g gvbe m¤ú` Dbq‡bi cwZeÜK	n¨v	bv
7.	eivÏKZ ev‡RU h_vh_ fv‡e ev¯ewqZ bv nIqv D”P wk¶vi gva¨‡g gvbe m¤ú` Dbq‡bi cwZeÜK	n¨v	bv
8.	M‡elYv I Dbqb eve` ev‡RU mnvqZv ew× Kiv c‡qvRb	n¨v	bv
9.	Ab¨vb¨		

**0. Avgv‡`i †`‡ki D”P wk¶vi we‡kl K‡i cvewjK wekwe`¨vj‡qi A_vq‡bi Rb¨ Avcwb †Kvb †Kvb Drm mcwik K‡ib?** (GKwaK Ack‡b wUK †`Iqv hv‡e)

(1) D”P wk¶vi c‡qvRbxq A‡_i ms¯vb miKvi Ki‡e

(2) QvÎ-QvÎx‡`i wUDkb wd D”P wk¶vi A_vq‡bi cavb Drm n‡e

(3) mv‡eK QvÎ-QvÎx‡`i Dci we‡kl wk¶v Ki Av‡ivc Kiv

(4) D”PweË‡`i Dci we‡kl wk¶v Ki Av‡ivc Kiv

(5) cvewjK cvB‡fU cvUbvikxc Gi gva¨‡g A‡_i ms¯vb Kiv

(6) gbvdv †Kw›`K A_‰bwZK cKí cwZôv Kiv

(7) QvÎ-QvÎx‡`i Rb¨ FY e¨e¯v Pvj Kiv

(8) KbmvjU¨wÝ, M‡elYv cKí Ges M‡elYv Ab`vb, BZ¨vw`‡Z wk¶K‡`i Ašf³ Kiv

(9) †`k I we‡`‡k ewË c`vbKwi‡`i mv‡_ m¤úK M‡o †Zvjv

(10) cvB‡fU A_vq‡b B‡fwbs wkdU Pvj Kiv

(11) Wvej wkdU Pvj Kiv

(12) Ab¨vb¨.....

**P. Avgv‡`i D"P wk¶vi †¶‡Î †Kvb¸‡jv‡K Avcwb P¨v‡jÄ wn‡m‡e g‡b K‡ib?** (GKwaK Ack‡b wUK †` Iqv hv‡e)

(1) Achvß ev‡RU eivÏ

(2) eivÏKZ ev‡RU h_vh_ fv‡e ev¯ewqZ bv nIqv

(3) mwVK cwiKíbvi Afve

(4) cwiKíbvi h_vh_ ev¯evqb bv nIqv

(5) cvewjK wekwe`¨vj‡qi ¯vqZkvm‡bi Ace¨envi

(6) cvewjK wekwe`¨vj‡qi wk¶K‡`i Aeva ¯vaxbZv

(7) D"P wk¶v cwZôv‡b RvZxq ivRbxwZi †jRiewË

(8) wk¶K wb‡qv‡M †gavi †P‡q ivR‰bwZK cwiPq‡K cvavb¨ †` Iqv

(9) wk¶K‡`i cwk¶‡Yi Afve

(10) wk¶K‡`i Revew`wnZvi Afve

(11) wk¶K‡`i c‡gvk‡bi †¶‡Î wk¶v `v‡bi `¶Zv we‡ePbv bv K‡i mwfm wWD‡ikb we‡ePbv

(12) wk¶K‡`i c‡gvk‡bi †¶‡Î cKwkZ AwU‡K‡ji gvb we‡ePbv bv K‡i cKvkbvi msL¨v we‡ePbv

(13) wk¶K‡`i c‡gvk‡bi †¶‡Î ivR‰bwZK cwiPq we‡ePbv

(14) wekwe`¨vj‡qi wewfb `wqZ c`v‡bi †¶‡Î ivR‰bwZK cwiPq we‡ePbv

(15) BbKw¤ú‡U›U wk¶K wb‡qvM

(16) †hvM¨ cv_x‡`i wekwe`¨vj‡qi wk¶K nIqvi wel‡q gwU‡fk‡bi Afve

(17) wekwe`¨vj‡qi mKj chv‡qi wb‡qv‡M ivR‰bwZK cwiPq we‡ePbv

(18) wekwe`¨vj‡qi wk¶K‡`i †eZb KvVv‡gv AvKlYxq bv nIqv

(19) ckvmwbK Revew`wnZvi Afve

(20) c‡qvRbxq AeKvVv‡gvMZ m‡hvMmwnavi Afve

(21) mxwgZ jvB‡ewi m‡hvM-mwnav

(22) mxwgZ j¨ve‡iUwi m‡hvM-mwnav

(23) gvbm¤§Z M‡elYv bv nIqv

(24) M‡elYv c‡Yv`bvi Afve

(25) mgwšZ c‡Póvi Afve

(26) miKvi KZK h_vh_ c`‡¶c MnY bv Kiv

(27) Re †cvfvBWvi‡`i mv‡_ m¤úK bv _vKv

(28) wewfb ivR‰bwZK KgmwPi (niZvj, Ae‡iva, agNU, BZ¨vw`) cfve

(29) †mkb R¨vg

(30) Ab¨vb¨.....

P. D”P wk¶vq e¨wqZ A‡_i e¨envi (Utilization) m¤ú‡K Avcbvi gZ †Kvb¸‡jv?

(GKwaK Ack‡b wUK †`Iqv hv‡e)

(1) †mkb R¨v‡gi Rb¨ miKvi KZK cwZ wk¶v_xi wcQ‡b †h AwZwi³ A_e¨q nq Zv AcPq

(2) †mkb R¨v‡gi Rb¨ Awffve K I wk¶v_x KZK †h AwZwi³ A_e¨q nq Zv AcPq

(3) †mkb R¨v‡gi Rb¨ wk¶v_xi KgRxeb ïi“ Ki‡Z †`wi nq hv Zvi Avq Kivi m‡hvM bó K‡i

(4) †mkb R¨v‡gi Rb¨ wk¶v_xi KgRxeb ïi“ Ki‡Z †`winq hv †`‡ki A_‰bwZK Dbq‡b Ae`vb ivLvi mgq wejw¤Z K‡i

(5) ¯í‡gqv`x D”P wkw¶Z †eKvi‡`i wcQ‡b D”P wk¶v eve` e¨wqZ A_ †eKviZKvjxb mg‡qi Rb¨ Abrcv`bkxj

(6) ¯í‡gqv`x D”P wkw¶Z †eKvi‡`i wbKU †_‡K †eKviZKvjxb mg‡qi Rb¨ †`k †mev cwß †_‡K ewÂZ nq

(7) ¯í‡gqv`x †eKviZ wk¶v_xi KgRxeb ïi“ Ki‡Z †`wi nq hv Zvi Avq Kivi m‡hvM bó K‡i

(8) ¯í‡gqv`x †eKviZ wk¶v_xi KgRxeb ïi“ Ki‡Z †`wi nq hv †`‡ki A_‰bwZK Dbq‡b Ae`vb ivLvi mgq wej¤^Z K‡i

(9) `xN‡gqv`x D”P wkw¶Z †eKvi‡`i wcQ‡b D”P wk¶v eve` e¨wqZ A_ Abrcv`bkxj I AcPq

(10) †UKwbK¨vj (Kwl, †gwW‡Kj, c‡KŠkj, BZ¨vw`) wel‡q D”P wk¶v MnYKwiMY bb-†UKwbK¨vj (cwjk, ckvmb, e¨vsKvi, BZ¨vw`) c‡` PvKwi Ki‡j Zv‡`i wcQ‡b AwZwi³ (†UKwbK¨vj wekwe`¨vjq - mvaviY wekwe`¨vjq) e¨wqZ A_ Abrcv`bkxj I AcPq

(11) †UKwbK¨vj (Kwl, †gwW‡Kj, c‡KŠkj BZ¨vw`) wel‡q D”P wk¶v MnYKwiMY bb-†UKwbK¨vj (cwjk, ckvmb, e¨vsKvi, BZ¨vw`) c‡` PvKix Ki‡j Zv‡`i Drcv`bkxjZv nvm K‡i

(12) Ab¨vb¨.....

R.	Avgv‡`i †`‡ki D”P wk¶vq we‡kl K‡i cvewjK wekwe`¨vj‡q wewfb wefv‡M wmU msL¨v †`k I we‡`‡k Kgms¯v‡bi welq we‡ePbvq wb‡q wbaviY Kiv DwPr	n¨v	bv
S.	†UKwbK¨vj (Kwl, †gwW‡Kj, c‡KŠkj BZ¨vw`) wel‡q D”P wk¶v MnYKwiM‡Yi †UKwbK¨vj c‡` PvKwi nIqv DwPr	n¨v	bv

**T. Avgv‡`i †`‡ki D”P wkw¶Z e¨w³‡`i Kgms¯vb m¤ú‡K Avcbvi gZ †Kvb¸‡jv?** (GKwaK Ack‡b wUK †`Iqv hv‡e)

(1) Kgms¯vb we‡ePbvq wb‡q D”P wk¶vi Avmb wbaviY Kiv

(2) AvZ¥-Kgms¯vb‡K Drmwn Z Kiv

(3) AvZ¥-Kgms¯v‡bi m‡hvM mwó Kiv hvq Ggb welq wk¶vi g‡a¨ Aš f ³ Kiv

(4) D”P gva¨wgK chv‡q D”P wk¶v Ges Kgms¯vb m¤ú‡K KvD‡Ýwjs -Gi e¨e¯v Kiv

(5) D”P wk¶vi wel‡qi mv‡_ mswkøó Kgms¯v‡bi e¨e¯v Kiv

(6) D”P wk¶vi wel‡qi mv‡_ mswkøó we‡kl K‡i †UKwbK¨vj wel‡q wWMavix‡`i Zv‡`i wk¶vi mv‡_ mswkøó Kgms¯v‡bi e¨e¯v Kiv n‡j Zv‡`i Drcv`bkxjZv ew× cv‡e

(7) D”P wkw¶Z †eKvi k‡b¨i †KvUvq wb‡q Avmvi †Póv Kiv

(8) RvZxq ch‡q D”P wkw¶Z †eKvi L‡R cvIqv Ges Kgms¯v‡bi e¨e¯v Kivi Rb¨ D”P wkw¶Z e¨w³‡`i mswkøó wekwe`¨vj‡qi gva¨‡g RvZxq †WUv‡em ^Zwi Kiv

(9) PvKwii †¶‡Î kagvÎ †gav‡K ¸i“Z †`Iqv

(10) †KvUvi wfwË‡Z PvKwi c`vb Av‡¯ Av‡¯ Kgv‡bv

(11) †KvUv c_v iwnZ Kiv

(12) PvKwii cix¶vi `xNmwÎZv Kgv‡bv

(১৩) একটি নিয়োগ নির্বাচনী পরীক্ষা থেকে মেধাক্রম এবং চাকুরি প্রার্থীদের চয়েস বিবেচনা করে সকল miKvix PvKwi c`vb

(14) GKwU wb‡qwg নির্বাচনী পরীক্ষা থেকে মেধাক্রম এবং চাকুরি প্রার্থীদের চয়েস বিবেচনা করে সকল †emiKvix PvKwi c`vb

(15) Kgms¯vb †gjvi gva¨‡g PvKwii e¨e¯v Kiv

(16) Ab¨vb¨.....

**U. Avgv‡`i D”P wk¶vi P¨v‡jÄ¸‡jv wKfv‡e IfviKvg Kiv hvq?** (GKwaK Ack‡b wUK †`lqv hv‡e)

1. ev‡RU eiv× ewÏ Kiv
2. eivÏKZ ev‡RU h_vh_ fv‡e ev¯evqb wbwðZ Kiv
3. ¯í †gqv`x I `xN †gqv`x cwiKíbv MnY
4. cwiKíbvi h_vh_ ev¯evqb wbwðZ Kiv
5. cvewjK wekwe`¨vj‡qi ¯vqZkvm‡bi h‡_vch³ e¨envi wbwðZ Kiv
6. wk¶K‡`i Aeva ¯vaxbZvi Ace¨envi †iva Kiv
7. D”P wk¶v cwZôvb‡K RvZxq ivRbxwZi †jRiewËi cfveg³ ivLv
8. wk¶K wb‡qv‡M ivR‰bwZK cwiPq‡K we‡ePbv bv K‡i †gav‡K cvavb¨ †`lqv
9. wk¶K‡`i c‡gvk‡bi †¶‡Î mwfm wWD‡ik‡bi mv‡_ mv‡_ wk¶v `v‡bi `¶Zv we‡ePbv Kiv
10. wk¶K‡`i c‡gvk‡bi †¶‡Î cKwkZ AwU‡K‡ji msL¨vi mv‡_ mv‡_ Rvbv‡ji gvb we‡ePbv Kiv
11. wekwe`¨vj‡qi wewfb `wqZ c`v‡bi †¶‡Î ivR‰bwZK cwiP‡qi cwie‡Z kagvÎ †hvM¨Zv I `¶Zv‡K we‡ePbv Kiv
12. wekwe`¨vj‡qi mKj chv‡q wb‡qvM‡K ivR‰bwZK cfveg³ Kiv
13. wk¶v cwZôvb‡K wewfb ivR‰bwZK KgmwPi (niZvj, Ae‡iva, agNU BZ¨w`) AvIZvi evB‡i ivLv
14. †hvM¨-AwfÁ (Kw¤ú‡U›U) wk¶K wb‡qvM †`lqv
15. wk¶K‡`i †`‡k-we‡`‡k cwk¶‡Yi e¨e¯v wbwðZ Kiv
16. wk¶K‡`i Revew`wnZv wbwðZ Kiv
17. †hvM¨ cv_x‡`i wekwe`¨vj‡qi wk¶K nIqvi wel‡q gwU‡fkb mwó Kiv
18. wekwe`¨vj‡qi wk¶K‡`i Rb¨ AvKlYxq †eZb KvVv‡gv c`vb Kiv
19. mgwšZ c‡Póv ew× Kiv

20. ckvmwbK Revew`wnZv wbwðZ Kiv

21. c‡qvRbxq AeKvVv‡gvMZ m‡hvM-mwea wbwðZ Kiv

22. †UwWkbvj jvB‡ewii mv‡_ mv‡_ Abjv Bb jvB‡ewii m‡hvM-mwea wbwðZ Kiv

23. miKvi KZK h_vh_ c`‡¶c MnY Kiv

24. Re †cvfvBWvi‡`i mv‡_ m¤úK M‡o †Zvjv

25. c‡qvRbxq j¨ve‡iUwi m‡hvM-mwea mwó Kiv

26. gvbm¤§Z M‡elYv ew×i Rb¨ e¨emvq I wkí cwZôv‡bi mv‡_ ms‡hvM ¯vcb Kiv

27. Aw_K I Abw_K m‡hvM-mwea ew×i gva¨‡g M‡elYv c‡Yv`bv ew× Kiv

28. †mkb R¨vg wbim‡b wewfb KvhKi c`‡¶c MnY, †hgb GKv‡WgK †K‡jÛvi c¯Z I Zv ev¯ evqb, h_vmg‡q Kvm-cix¶v m¤úb Kiv, BZ¨w`

29. Ab¨vb¨.....

D”P wk¶vi gva¨‡g evsjv‡`‡ki gvbe m¤ú` Dbq‡b mnvqK n‡e Ggb †Kvb gZvgZ _vK‡j c`v‡bi Rb¨ Ab‡iva KiwQ|

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Thank you for your cordial cooperation

Sign and Date